Federal Aviation Administration

Air Ambulance Quality and Patient Safety Advisory Committee: Report to Congress

Date: June 11, 2026

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Executive Summary

Air ambulances – aircraft equipped with medical equipment and personnel – provide important and often life-saving care for patients requiring rapid transportation and/or advanced medical interventions. These aircraft can function as mobile care units, extending the reach of care, particularly for patients in rural, remote, and resource-limited areas.

To support the continued advancement of air ambulance patient safety and capability standards, the Advisory Committee on Air Ambulance Quality and Patient Safety (AAQPS Committee) was established under Section 106(g) of the No Surprises Act to study and provide recommendations to Congress on five topic areas:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Clinical triage criteria for air ambulances.
4. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
5. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

The Committee was formed through a collaborative effort between the U.S. Department of Health and Human Services (HHS) and the Department of Transportation (DOT), with management and support from the Centers for Medicare & Medicaid Services (CMS). It established two subcommittees – Clinical Standards and Flight Safety – to study and refine problem statements relevant to the five statutory focus areas, evaluate potential solutions and draft recommendations. The Federal Aviation Administration (FAA) participated as a resource to the Flight Safety Subcommittee, and the DOT Designee to the Committee was an FAA employee. During public meetings in 2024 and 2025, Committee members discussed the challenges and benefits of proposed recommendations. By July 2025, the Committee finalized 13 recommendations, ensuring alignment with the five areas of its legislative mandate.

Qualifications of Different Clinical Capability Levels and Tiering of Such Levels

Recognizing the complexity and variety of air ambulance clinical services, the Committee focused on the underlying concept of tiering, meaning a shared taxonomy for air ambulance clinical capabilities. The Committee recommended Congress grant CMS the authority to establish air ambulances as a Medicare provider type, enabling CMS to create air ambulance safety standards by establishing Conditions of Participation. This would allow CMS to set and monitor the clinical care that air ambulance services provide. Separately, the Committee recommended HHS study the adequacy of Medicare reimbursement rates for air ambulance services, including the collection of air ambulance operational and cost data, to improve transparency and inform policy aligned with recommendations from the Air Ambulance and Patient Billing Advisory Committee (AAPB).

Patient Safety and Quality Standards

Aiming to establish a unified framework for patient safety and quality improvement, the Committee recommended CMS create an air ambulance quality reporting program and a patient safety structural measure that parallels the FAA Safety Management System Requirement to integrate clinical and aviation safety standards, fostering a "just culture" framework to enhance transparency and accountability. Because access to data is critical to quality measurement and quality improvement, the Committee also recommended HHS provide guidance on the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy and Security Rules to encourage data sharing between hospitals and air ambulance providers, and that Congress increase funding to strengthen such exchange.

Clinical Triage Criteria for Air Ambulances

To ensure patients receive appropriate and timely care, the Committee examined the challenges surrounding clinical triage and medical necessity determinations. Due to concerns about defining specific triage criteria that may not be suited for all specific markets and geographic areas, the Committee focused on the impact of post-hoc claims denials on medical decision-making. Recognizing the qualifications of providers to determine medical necessity based on the circumstances known at the time of transport, the AAQPS Committee recommended that Congress mandate an existing AAPB Committee recommendation on a "rebuttable presumption" that an emergency air ambulance transport was medically necessary, if consistent with provisions in Section 415 of the Medicare Modernization Act of 2003. Enactment of this recommendation would support provider confidence in ordering medically necessary transports and ensure that geographic and resource constraints – especially in rural and frontier areas – are properly considered in medical necessity determinations.

Options for Improving Service Reliability During Poor Weather, Night Conditions, or Other Adverse Conditions

Recognizing that air ambulances commonly operate in the low-altitude environment and in airspace not serviced by radar or air traffic control (ATC) services, the Committee recommended Congress direct the FAA to expand access to weather data, develop low-altitude Instrument Flight Rules (IFR) routes and enhanced ATC capabilities, adopt policies and procedures to support low-altitude IFR use, and ensure integrated management of all low-altitude aviation operations, including Advanced Air Mobility and Autonomous Air Vehicles. To further support FAA and industry initiatives, the Committee recommended Congress allocate funding for expanded weather services and initiatives to modernize heliport, helipad, and landing zone data and infrastructure. The Committee also recommended Congress mandate the equipage of new air ambulance helicopters with Automatic Flight Control Systems, incentivize retrofitting existing helicopters with such systems, and require pilot training on their use to improve safety in single-pilot operations.

Impact of Differences in Vehicle Types, Services, Technologies, and Other Standards on Patient Safety

To address a gap in occupant safety standards, the Committee recommended mandating critical safety standards, including crashworthy fuel systems, crash-resistant seating, and crash-resistant

interiors to address regulatory gaps that leave legacy helicopters non-compliant with modern safety benchmarks. The Committee also highlighted the need to streamline certification processes for aircraft systems and medical equipment, recommending adoption of performance-based standards, establishment of expedited approval pathways, and creation of a dedicated FAA liaison team to enhance communication and regulatory guidance.

Summary of AAQPS Recommendations

Statutory Area	Rec. Number	Brief Description
1	AAQPS 1	Evaluate adequacy of Medicare reimbursement
1	AAQPS 2	Collect air ambulance operational data
1	AAQPS 3	Establish air ambulance as a Medicare-regulated provider type
2	AAQPS 4	Develop a patient safety structural measure and an air ambulance quality reporting program
2	AAQPS 5	Issue HIPAA guidance on clinical data sharing
2	AAQPS 6	Provide additional funding for health information exchange efforts
3	AAQPS 7	Mandate rebuttable presumption on medical necessity
4	AAQPS 8	Enhance non-terminal area weather reporting and infrastructure
4	AAQPS 9	Improve low-altitude IFR infrastructure
4	AAQPS 10	Modernize helipad data, infrastructure, and safety standards
4	AAQPS 11	Enhance safety and technology for single-pilot operations
5	AAQPS 12	Mandate critical safety standards for occupant protection
5	AAQPS 13	Streamline technology and equipment certification

Introduction: Overview of the AAQPS Committee

An air ambulance is an aircraft equipped with medical equipment appropriate to the type of care required for the patient.[1] Air ambulances provide important, often lifesaving transportation between a scene response (i.e., landing at or near a patient) and a healthcare facility, or between two healthcare facilities.[2] Generally, rotor-wing aircraft are used for shorter transports. For longer transports, fixed-wing aircraft are used.

Rotor-wing and fixed-wing aircraft are tailored to meet the unique demands of air ambulance operations, ensuring patients receive timely and appropriate care regardless of transport distance. Air transport serves as a mobile care unit, providing time-sensitive intensive care outside of the hospital. Highly trained medical crews provide continuous critical care during transport, performing interventions such as mechanical ventilation, blood product administration, vasoactive infusions, and mechanical circulatory support. While critical care remains the primary focus, air medical services also address other vital use cases, such as overcoming geographic challenges to supplement ground ambulance services. These services extend the reach of tertiary and quaternary care into rural, remote, and resource-limited areas, ensuring rapid access to lifesaving care through both emergency scene responses and complex interfacility transfers. Air medical services function as a critical safety net for the healthcare system overall, particularly in rural areas facing provider shortages and hospital closures. By filling these gaps, air medical services ensure equitable access to lifesaving healthcare, regardless of location.

In addition to transporting critically ill and injured patients, air ambulances deliver critical resources and expertise where needed most. They transport organs, blood, and specialized medical teams to remote locations for emergency procedures (e.g., neonatal teams with an incubator). Air ambulances are also used in disaster events, providing support for mass casualties and moving patients farther from the event.

Over time, the air ambulance industry has seen substantial growth. Between 2016 and 2023, helicopter air ambulance flight hours increased 23%[3] and over the ten years between 2011 and 2021 fixed-wing air ambulance use increased approximately 2.2% per year.[4] The rapid expansion has raised concerns regarding patient safety, operational oversight, cost, and equitable access.[5]

Given the emergent circumstances and limited resources available for air medical transport, patients often do not have the option to select their provider. Consequently, both regulatory authorities and operators maintain heightened vigilance in operational safety, frequently surpassing standards observed in other commercial aviation sectors. The complexity of operational,

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[1] FAA Order 8900.1, Vol 3, Ch 18, § 3, Part A Operations Specifications—General

[2] U.S. Department of Transportation. (2022, March). A Report of the Air Ambulance and Patient Billing Advisory Committee

[3] Data available on the AAQPS website

[4] A Statistical Overview of Fixed Wing Air Medical Transportation Operations in the United States (2019-2020) Lance Sherry, PhD, Charlie Wang, BSc Air Medical Journal Volume 41 Issue 4 Pages 359-369 (July 2022).

[5] The Government Accountability Office has published several reports addressing air ambulance, including GAO-07-353 on the need for improved data, GAO-10-907 on changes in the industry, GAO-17-637 on the need for improved transparency and oversight, and GAO-19-292 on financial risks for privately insured patients.

regulatory, and systemic elements of these operations may elevate risks for both patients and crew members. Adverse weather, limited low-altitude meteorological information, and a lack of low-altitude infrastructure significantly hinder safe and efficient transport, particularly outside terminal zones and during periods of challenging weather. Additional operational challenges – such as increased pilot workload in complex settings, variability in clinical expertise, and misalignment of resources – further intensify patient safety risks, with particular concern for vulnerable groups like neonates, pediatric patients, and individuals in rural areas. Furthermore, many hospital helipads lack standardized facilities, do not meet current Federal Aviation Administration (FAA) recommended design standards (that is, the standards set forth in AC 150/5390-2D), and are not included in FAA databases, increasing the potential for airspace conflicts. Systemic issues like inconsistent reimbursement for medically necessary transports, restricted access to post-transport clinical data and outcomes, and misalignment of clinical resources with community needs further impede the delivery of high-quality, patient-centered care. Addressing these multifaceted challenges is essential to ensuring the safety, reliability, and effectiveness of air ambulance services within emergency medical systems.

Recognizing the importance of ensuring the highest standards of patient safety, clinical quality, and operational reliability for air ambulances, Congress tasked the Secretary of the U.S. Department of Health and Human Services (HHS) and the Secretary of the U.S. Department of Transportation (DOT) to establish a federal advisory committee focused on quality and patient safety through the No Surprises Act.

Legislative Mandate

The Advisory Committee on Air Ambulance Quality and Patient Safety (AAQPS Committee) was established under section 106(g) Title I (No Surprises Act) of Division BB of the Consolidated Appropriations Act, 2021 (CAA), P.L. 116-260 (Dec. 27, 2020).[6] Section 106(g) requires the HHS and DOT Secretaries to establish and convene an advisory committee to review options for establishing quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The AAQPS Committee was established to provide recommendations to Congress on the following with respect to air ambulance services:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
4. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

[6] The No Surprises Act protects people covered under group and individual health plans from surprise medical bills when they receive most emergency services, non-emergency services from out-of-network providers at in-network facilities, and services from out-of-network air ambulance service providers; and establishes an independent dispute resolution process for payment disputes between plans and providers. The Departments of Health and Human Services, Treasury, and Labor were tasked with issuing regulations and guidance to implement provisions found in the law.

5. Clinical triage criteria for air ambulances.

The Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

Formation and Structure

HHS chartered the AAQPS Committee [Appendix B] on August 22, 2023, with management and support provided by the HHS Centers for Medicare & Medicaid Services (CMS) in coordination with the FAA. A notice published on June 7, 2023, announced the establishment of the Committee and solicited nominations for membership.[7] During late 2023 and early 2024, CMS and FAA reviewed nominations to ensure compliance with the enabling legislation and the FACA statutory requirements, assessed needed subject matter expertise, and mapped those needs to candidates under consideration. On November 27, 2024, a notice was published announcing the Committee's roster of 14 members [Appendix D].[8] On December 12, 2024, DOT and HHS tasked the AAQPS Committee to make recommendations that address the five statutory areas described in Section 106(g) of the No Surprises Act.

The Committee's charter states that the Designated Federal Officer (DFO), selected by the CMS Center for Clinical Standards and Quality, may establish subcommittees to perform specific assignments. The DFO established two subcommittees: Clinical Standards and Flight Safety [Appendix C]. [9] [10] The Committee delegated to the Clinical Standards Subcommittee the task of making recommendations regarding the first, second, and fifth statutory areas described above. The Committee delegated to the Flight Safety Subcommittee the task of making recommendations regarding the third and fourth statutory areas described above. Both Subcommittees provided updates to the Committee on their deliberations, looked to the Committee for guidance on prioritization, and helped Committee members understand the background and nuance of each of their recommendations.

Process and Milestones

The AAQPS Committee held its first of three public meetings on December 12, 2024. The meeting included presentations with an overview of the air ambulance industry and its regulatory environment, flight safety data and best practices, the clinical quality environment, and statutorily required discussion topics for flight safety and clinical standards. The meeting also included opportunities for discussion on these topics.

Following this initial meeting, the Flight Safety and Clinical Standards Subcommittees engaged in additional study and discussion to address key challenges and propose recommendations in each

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[7] Request for Nominations of Members to Serve on the Air Ambulance Quality and Patient Safety Advisory Committee, 88 F.R. 37253 (June 7, 2023).
[8] Medicare Program; Public Meeting for Air Ambulance Quality & Patient Safety Advisory Committee—December 12, 2024, February 18, 2025, and May 8, 2025, 89 F.R. 93608 (November 27, 2024)
[9] Centers for Medicare & Medicaid Services. (2024). Advisory Committee on Air Ambulance Quality and Patient Safety Task Notice
[10] Centers for Medicare & Medicaid Services. (2024). FAA Advisory Committee on Air Ambulance Quality and Patient Safety Task Notice

of their respective focus areas. The Clinical Standards Subcommittee met five times between January and June 2025, and the Flight Safety Subcommittee met five times between December 2024 and April 2025. Each Subcommittee refined and finalized specific problem statements and, through discussion, identified potential solutions. Weighing the benefits and challenges of their identified solutions, each Subcommittee developed initial draft recommendations for the full Committee's consideration.

The Subcommittees then presented their findings to the full Committee at a public meeting held on May 8, 2025; Committee members discussed the background, challenges, and anticipated benefits associated with each recommendation. These deliberations resulted in the adoption of nine recommendations, as well as the identification of areas for further refinement for clarity and alignment with the Committee's statutory objectives.

The final phase of the Committee's work occurred on July 10, 2025, when members reconvened to address the outstanding recommendations. During this meeting, updated language was reviewed and finalized, and the Committee held its final votes on the remaining recommendations. These deliberations resulted in the adoption of an additional four recommendations.

The Committee adopted a total of 13 recommendations over the course of its three public meetings. All recommendations voted on by the Committee, including the 13 adopted recommendations, are listed in Appendix I.

AAPB Recommendations

As part of their processes, each Subcommittee assessed recent recommendations from relevant federal advisory committees and other working groups, seeking to avoid duplicating efforts. The Clinical Standards Subcommittee studied efforts recently undertaken by the Advisory Committee on Air Ambulance Patient Billing (AAPB),[11] which was established in 2018 under Section 418 of the FAA Reauthorization Act of 2018. This legislation directed the Secretary of Transportation and the Secretary of Health and Human Services to form an advisory committee tasked with exploring strategies to enhance transparency in the disclosure of charges and fees for air medical services, improve consumer awareness of insurance coverage options for such services, and safeguard consumers from balance billing practices. The Clinical Standards Subcommittee identified three existing AAPB recommendations with direct implications for the statutory areas of the AAQPS. The Subcommittee recommended the Committee endorse these three AAPB recommendations, issuing new recommendations aligned with the AAPB to emphasize the importance of the previous recommendations for advancing clinical standards and patient safety. The Subcommittee intentionally avoided further addressing topics related solely to billing, as these were thoroughly discussed by the AAPB.

For the remaining challenges identified by the Subcommittees, new recommendations were developed for the Committee's consideration.

[11] U.S. Department of Transportation. (2022). A Report of the Air Ambulance and Patient Billing Advisory Committee

Structure of this Report

The five chapters in this report outline the Committee's recommendations relevant to the five statutory areas of focus: clinical capabilities; patient safety and quality standards; service reliability during adverse conditions; differences in air ambulance flight capability standards; and clinical triage criteria.

For each recommendation, the report describes the background and problem statements identified by the Subcommittees and reviewed by the Committee, the Subcommittee's proposed recommendation, and a summary of the Committee's deliberations that led to the final recommendation. In addition, clarifying language in individual recommendations regarding the aircraft type was reviewed by the Committee. Throughout this report and in individual recommendations, air ambulance refers to both fixed-wing and helicopter aircraft unless otherwise specified.

Chapter 1: Recommendations on Qualifications of Clinical Capability Levels and Tiering of Such Levels

Section 106(g)(4)(A) of the No Surprises Act directs the AAQPS Committee to study and make recommendations, as appropriate, to Congress regarding qualifications of different clinical capability levels and tiering of such levels.

In a joint position statement, the National Association of EMS Physicians, the American College of Emergency Physicians, and the Air Medical Physician Association recommended that clinical air medical services should "accomplish one or more of three primary patient-centered goals: initiation or continuation of locally unavailable advanced or specialty care; expedited delivery to definitive care for time-sensitive interventions; and/or extraction from physically remote or otherwise inaccessible locations that limit timely access to necessary care."[12] The Committee focused on two foundational issues with regard to clinical capabilities and qualifications. The first issue pertains to scenarios in which clinical capabilities available may not be appropriately matched to the community, i.e., there may be an insufficient or excessive supply of specific clinical services. The second issue pertains to scenarios in which variability in the equipment and clinical capabilities available on air ambulances can present a clinical risk to patient safety when the available equipment, personnel, and training are not adequately matched to the needs of the patient; this presents particular risks for specialty populations and low frequency/high-risk patients, including neonatal, pediatric, and high-risk obstetric patients as well as individuals living in rural areas.

It is difficult to capture the complexity and heterogeneity of clinical services needed in response to these scenarios into a straightforward tiering system. Classifications of the type of care provided in air ambulances can change over time with evolving skills and equipment, such as adoption of new devices and subsequent training of providers. Mandatory designations like Basic Life Support,

[12] Appropriate Air Medical Services Utilization and Recommendations for Integration of Air Medical Services Resources into the EMS System of Care: A Joint Position Statement and Resource Document of NAEMSP, ACEP, and AMPA. (2021). Prehospital Emergency Care

Advanced Cardiac Life Support, and Specialty Care Support may not be universally applicable, as air ambulances are typically expected to handle critically ill or injured patients and many operate with multidisciplinary care teams. This multidisciplinary approach gives air ambulances the capability to match a given clinical crew to the unique clinical needs of the patient. Instead of recommending a structured tiering system, the Committee focused on the intent behind a tiering system, which is to describe the types of clinical capabilities delivered by air, examine reimbursement based on the clinical complexity that requires differentiated capabilities, and enforcing minimum standards of care to ensure patient safety.

1.1 Adequacy of Medicare Reimbursement

Background

The challenges to maintain the financial viability of an air ambulance business are significant, given the substantial costs associated with 24/7 readiness and the unpredictable nature of current revenue streams. Reimbursement adequacy is a particular challenge in Medicare, which reimburses ground and air ambulance providers as a transportation supplier rather than a clinical therapy. It is difficult to provide the necessary equipment, specialty staff, and training to treat a variety of complex and specialty populations when there is no payment differential beyond flat transportation fees.[13] Air ambulance providers report that Medicare rates are often insufficient to cover the costs of transport, and the current payment model that reimburses based on mileage and aircraft type does not account for the high fixed costs associated with air ambulance operations.[14] This dichotomy between transport and service is exacerbated as many commercial carriers and payors use Medicare reimbursement as a benchmark.

CMS pays Medicare claims for ground and air ambulance through Medicare Part B and reimbursement rates for these services are determined using the Medicare Part B Ambulance Fee Schedule (AFS).[15] The AFS pays providers and suppliers a single payment for the transport of the beneficiary to the nearest appropriate facility and all items and services associated with the transport, including "items and services such as oxygen, drugs, extra attendants, and electrocardiogram testing when such services are medically necessary." Reimbursement is differentiated based on aircraft type: fixed wing and rotary wing with 2024 Medicare base payment rates of $3,697.17 and $4,298.52, respectively. A permanent add-on payment of 50% increases both the air ambulance base and mileage rate if the point-of-pickup ZIP code is rural.[16] A 2017 Government Accountability Office (GAO) report found that the lower and upper ends of Medicare payment, adjusted annually primarily based on inflation, have not increased in line with the rise in cost per transport noted by air ambulance providers, inhibiting higher revenues even when prices increase.[17]

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[13] HHS Assistant Secretary of Planning and Evaluation (2021). Air Ambulance Use and Surprise Billing
[14] National Transportation Safety Board (2009). Safety Recommendation to HHS
[15] See Section 4531(b)(2) of the Balanced Budget Act of 1997, adding Section 1834(l) of the Social Security Act, mandating the establishment of AFS.
[16] MedPAC. (2024, October). Ambulance Services Payment System
[17] Government Accountability Office (2017). Data Collection and Transparency Needed to Enhance DOT Oversight

The lack of differential payment for advanced clinical capabilities requiring specialized equipment, supplies, and expertise is inconsistent with how other providers, such as hospitals, bill for similar services. Air ambulance providers and clinicians have reported a lack of necessary equipment for specialty populations can negatively impact patient outcomes. Appropriate payment rates are essential to ensure that requisite capabilities are available in communities for patients to receive safe and appropriate emergency care and to have the best opportunity for positive outcomes. As the GAO report noted, most air ambulance costs are fixed, (e.g. readiness, staffing, equipment) and either increased payment rates or increased transports are necessary to meet costs.

Subcommittee Recommendation

In March 2022, the Air Ambulance and Patient Billing Advisory Committee (AAPB) recommended that legislation be enacted to require HHS to: (i) study Medicare rates for air ambulance services; and (ii) if warranted, for HHS to take steps to increase the reimbursement rates for air ambulance services upon conclusion of the study. The AAPB also recommended that the study be based on actual cost data, with "cost" including: (1) the definition of cost as set forth in the Balance Billing Subcommittee's recommendation; (2) cost elements set forth in Section 106 of the No Surprises Act; and (3) volume of transports.

The Clinical Standards Subcommittee recommended CMS conduct a study of reimbursement adequacy. More specifically, the Subcommittee recommended that this study assess whether reimbursement should be differentiated for specialty care using add-on payments, modifier codes, and/or procedure codes commonly used in other critical care settings, to ensure adequate compensation and incentives to provide the clinical capabilities needed to meet patient needs. This is aligned with AAPB recommendation #17.

In response to the statutory requirement to study tiering of clinical capability levels, the Subcommittee discussed the potential benefits and challenges of a tiered approach but did not recommend it as a foundation for reimbursement. The Subcommittee agreed the intent behind tiering was to recognize there are greater expenses and expertise associated with more complex clinical care and being prepared 24/7 to serve a variety of specialty populations. However, a tiering approach could collapse this complexity into a few categories, which do not accurately reflect the diversity of aviation and clinical services provided. The Subcommittee noted that because the complexity is too great to be effectively operationalized in a tiering system, there would likely be unintended consequences that could negatively impact operator sustainability and increase disparities in access to these critical services. The Subcommittee recommended instead that air ambulance operators be designated as a Medicare provider type (see AAQPS Recommendation 3) and that HHS should evaluate the adequacy of Medicare reimbursement, considering the use of add-on payments, modifier codes, and/or procedure codes to adequately reimburse for the specific clinical services and capabilities provided.

> **Subcommittee Recommendation:** Congress should enact legislation to implement the following AAPB recommendation for HHS to evaluate the adequacy of Medicare reimbursement rates for air ambulance. This evaluation should:

- Assess whether reimbursement should be differentiated for transports involving specialty care or more intensive procedures to ensure payment is adequate for the diversity of critical services provided in the air ambulance setting;
- Consider use of add-on payments, modifier codes, and/or procedure codes commonly used across payors to ensure clarity and efficiency in claims processing; and
- Assess adequacy of reimbursement for aviation operational and training costs in the context of current FAA requirements and advancements in best practices for flight safety.

*AAPB Recommendation #17: The AAPB recommends that legislation be enacted to require HHS to: (i) study Medicare rates for air ambulance services; and (ii) if warranted, for HHS to take steps to increase the reimbursement rates for air ambulance services upon conclusion of the study. The Advisory Committee also recommends that the study should be based on actual cost data, with "cost" including (1) the definition of cost as set forth in the Balance Billing Subcommittee's recommendation; (2) cost elements set forth in Section 106 of the No Surprises Act; and (3) volume of transports.

Implementing this recommendation would help to ensure Medicare payment rates are adequate for these critical services to remain available to the communities they serve, as operational and training costs are inextricably linked to delivering air ambulance services. The Subcommittee acknowledged that the recommendation as written would only apply to Medicare reimbursement, noting that the Medicare program is the federal government's most direct tool to affect reimbursement, and it is not uncommon for Medicare billing and reimbursement practices to be a reference point for other payors.

Committee Discussion and Voting

The Committee discussed how Medicare rates for air ambulances were established following passage of the 1997 Balanced Budget Act which required CMS to develop a national ambulance fee schedule. Though CMS updates the fee schedule each year, Committee members agreed that reimbursement has not kept up with inflation, leading to concerns that current reimbursement does not sufficiently cover the actual costs of providing air ambulance services and may present barriers to sustainability and patient access. They also noted that a mandated cost study under the No Surprises Act had yet to be implemented.

The Committee discussed suggestions to include an evaluation of any market-wide impacts of Medicare payment changes as well as reimbursement for specialty care (e.g., neonatal, pediatric, extracorporeal membrane oxygenation). The Committee incorporated these suggestions into the recommendation language.

The Committee voted to adopt AAQPS Recommendation 1, with 12 Committee members voting in favor, none opposed, and one abstaining.

AAQPS Recommendation 1

Consistent with the following Air Ambulance and Patient Billing Advisory Committee (AAPB) recommendation,* Congress should enact legislation to evaluate the adequacy of Medicare reimbursement rates for air ambulance. This evaluation should specifically:

- Assess whether reimbursement should be differentiated for transports involving specialty care or more intensive procedures to ensure payment is adequate for the diversity of critical services provided in the air ambulance setting.
- Consider use of add-on payments, modifier codes, and/or procedure codes commonly used across payors to ensure clarity and efficiency in claims processing.
- Assess adequacy of reimbursement for aviation operational and training costs in the context of current Federal Aviation Administration (FAA) requirements and advancements in best practices for flight safety.
- Include analysis of potential gaps in reimbursement for specialty services and market-wide impact of any changes to Medicare reimbursement rates.

*AAPB Recommendation #17: The AAPB recommends that legislation be enacted to require HHS to: (i) study Medicare rates for air ambulance services; and (ii) if warranted, for HHS to take steps to increase the reimbursement rates for air ambulance services upon conclusion of the study. The Advisory Committee also recommends that the study should be based on actual cost data, with "cost" including (1) the definition of cost as set forth in the Balance Billing Subcommittee's recommendation; (2) cost elements set forth in Section 106 of the No Surprises Act; and (3) volume of transports.

1.2 Data Collection

Background

To advance understanding of the air ambulance industry among policymakers and to increase transparency of market conditions impacting services, improvements in data collection and analysis are essential. The GAO has highlighted the lack of comprehensive data necessary for effective oversight in multiple reports.[18] Consistent with Title 49 of the United States Code §44731, *Collection of Data on Helicopter Air Ambulance Operations*, the FAA collects data on helicopter air ambulance operations and makes these data publicly available in aggregated reports. However, there is a notable lack of standardized and reliable data on costs and clinical decision-making processes, and discrepancies exist between usage data collected by the National EMS Information System (NEMSIS) and data gathered by the FAA. Furthermore, as air ambulances are classified by CMS as suppliers rather than providers, they are not subject to CMS Conditions of Participation, leading to jurisdictional ambiguities between federal and state oversight. As a result, there is a lack

[18] GAO-07-353 Aviation Safety: Improved Data Collection Needed for Effective Oversight of Air Ambulance Industry; GAO-19-292, AIR AMBULANCE: Available Data Show Privately-Insured Patients Are at Financial Risk; GAO-10-907 Air Ambulance: Effects of Industry Changes on Services Are Unclear; GAO-17-637, AIR AMBULANCE: Data Collection and Transparency Needed to Enhance DOT Oversight

of a centralized, comprehensive data repository detailing the capabilities and capacities of providers for specialty transport; and the absence of a requirement to report quality-related issues. Addressing these gaps is critical to ensuring the safety, quality, and effectiveness of air ambulance services.

Deliberations, such as those occurring within federal advisory committees, would be improved if supported by better data. The No Surprises Act offered a starting point for data collection through authority given to CMS to collect data from air ambulance operators for two years, analyze the data, and report their findings. In 2021, prior to the issuance of the AAPB report, CMS issued but did not finalize a Notice of Proposed Rulemaking to collect the data required under the No Surprises Act.[19]

Subcommittee Recommendation

In its 2022 report, the AAPB recommended a set of specific data elements that HHS should collect to support this analysis, in addition to the minimum data elements required by the No Surprises Act. In AAPB Recommendation #14, the AAPB recommended that "HHS and DOT collect data nationally from air ambulance providers and suppliers regarding: (1) average cost per trip; (2) air ambulance base rates and patient-loaded statute mileage rates; (3) ancillary fees for specialty services; (4) reimbursement data aggregated by payor type and per transport, based on median rate and ZIP code, with data regarding private insurance further identified by provider type; (5) alternate revenue sources (e.g., subsidies or membership programs) broken down per transport for reporting purposes; (6) volume of transports, segregated by aircraft type (fixed wing and rotary wing) and takeoff ZIP code for government purposes, or for public use when aggregated with other data; (7) market share for air transport, obtained from the FAA certificate holder and identifying the certificate holder's parent company; and (8) market share for healthcare, by looking at the program type for the FAA certificate holder." This data-driven analysis will help to inform policymakers as decisions about reimbursement, access and patient protection are discussed.

> **Subcommittee Recommendation:** HHS should implement AAPB recommendation #14 regarding implementation of data collection requirements authorized under No Surprises Act (section 106) and subsequent Notice of Proposed Rulemaking (CMS-9907-P, Document Number 2021-19797, 86 FR 51730-51779), which would allow CMS to collect operational data on the air ambulance industry for two years and issue a report on the current state of the air ambulance industry.

The increase in transparency resulting from this recommendation would support a better understanding of the industry and would be critical to informing other recommendations made by this Committee regarding reimbursement, availability of clinical capabilities in each market, and federal or state oversight of clinical standards and patient safety. The Subcommittee believes this is a critical step to appropriately aligning financial incentives to provide the best care for each patient.

[19] Requirements Related to Air Ambulance Services, Agent and Broker Disclosures, and Provider Enforcement, 86 FR 51730 (proposed September 16, 2021). https://www.federalregister.gov/d/2021-19797

Committee Discussion and Voting

The Committee generally agreed that additional data and analysis would improve transparency and better inform decision-making, including for other recommendations made by the Committee. One concern was the recommendation's narrow focus on Medicare data, which does not provide a comprehensive view of service delivery, particularly with regard to cross-subsidization of services across payors. A suggestion was made to consider expanding data collection to other sources, such as state level all payor databases, Employee Retirement Income Security Act of 1974 (ERISA) plans and Medicaid, which already have some public data.

The Committee required no further discussion related to this recommendation and made no modifications to the proposed language. The Committee voted to adopt AAQPS Recommendation 2, with 11 Committee members voting in favor, none opposed, and two abstaining.

AAQPS Recommendation 2

HHS should implement Air Ambulance and Patient Billing Advisory Committee recommendation #14* regarding implementation of data collection requirements authorized under No Surprises Act (section 106) and defined in the subsequent Notice of Proposed Rulemaking (CMS-9907-P, Document Number 2021-19797, 86 FR 51730-51779), which would allow CMS to collect operational data on the air ambulance industry for two years and issue a report on the current state of the air ambulance industry.

*AAPB Recommendation #14: The AAPB recommends that HHS and DOT collect data nationally from AA providers and suppliers regarding: (1) average cost per trip; (2) air ambulance base rates and patient-loaded statute mileage rates; (3) ancillary fees for specialty services; (4) reimbursement data aggregated by payor type and per transport, based on median rate and ZIP code, with data regarding private insurance further identified by provider type; (5) alternate revenue sources (e.g., subsidies or membership programs) broken down per transport for reporting purposes; (6) volume of transports, segregated by aircraft type (fixed wing and rotary wing) and takeoff ZIP code for government purposes, or for public use when aggregated with other data; (7) market share for air transport, obtained from the FAA certificate holder and identifying the certificate holder's parent company; and (8) market share for health care, by looking at the program type for the FAA certificate holder.

1.3 Establishing Minimum National Clinical Standards

Background

Though ambulance services are a covered Medicare benefit, air ambulances are not a certified Medicare provider type. This means that while air ambulance services are enrolled in Medicare and can bill for transport and covered services, they are not required to meet minimum national health and safety standards (known as the Conditions of Participation [CoPs] or Conditions for Coverage [CfCs]) to participate in Medicare. CMS currently considers air ambulances as a supplier of a transportation benefit for the Medicare program, and reimbursement is paid for transportation only, with no differential for services requiring specialized personnel or equipment. As a "transport only" benefit reimbursed based on vehicle type and mileage, ambulance providers (air and ground) are required to demonstrate they have met basic requirements (such as availability of stretchers and

emergency medical supplies) to be reimbursed by Medicare, but few requirements are specific to air ambulances.[20]

In contrast, provider types certified by Medicare must meet minimum health and safety standards as codified by the CoPs. To date, Congress has established over 20 provider types and CMS has typically set minimum health and safety standards for these providers through notice and comment rule making. These provider types must comply with the CoPs in order to participate in the Medicare program and be reimbursed for the delivery of services provided. Notably, the minimum health and safety regulations set out in the CoPs apply to all patients regardless of payor. State Survey Agencies or accreditation organizations approved by CMS (through a process called "deeming") periodically survey healthcare organizations to evaluate their compliance with CMS's establish standards.[21]

Currently, there are no specific federal regulations related to the clinical aspects of air ambulance service. Clinical standards are regulated by the states, though the Airline Deregulation Act (ADA) preempts states from regulating anything that impacts "routes, prices, or services" for an air transport operator (including air ambulance). The resulting ambiguity in individual states' authority to regulate clinical services creates risks for air ambulance operators working across state lines and contending with varying state requirements that may be in turn preempted by the ADA. For example, variability in air ambulance equipment and clinical capabilities can present a significant risk to patient safety when the needs of the patient exceed the available equipment or the skills and experience of the clinical personnel. This is a particular risk for low-frequency/high acuity or high-risk interventions for patients and patients in rural areas.

Many air ambulance operators participate in voluntary accreditation programs offered through the Commission on Accreditation of Medical Transport Systems (CAMTS) and the National Accreditation Alliance of Medical Transport Applications (NAAMTA) and European Aero-Medical Institute (EURAMI). The Advisory Committee's representative for accrediting bodies, Ms. Frazer, estimated that 80-85% of helicopter air ambulance services participate in these voluntary accrediting services. However, while published standards exist, there is no required national standard for the care delivered to patients being transported by air ambulances. When patients need an air ambulance, they should be assured that minimum health and safety standards have been met to support their care needs.

Subcommittee Recommendations

The Clinical Standards Subcommittee considered different approaches to establishing minimum national clinical standards for air ambulance to ensure a shared understanding across the industry and reduce the variation in requirements across state lines. These options included updating existing Medicare supplier requirements for ambulance services; establishing a new Medicare provider type; requiring compulsory accreditation for air ambulances seeking reimbursement from Medicare; and establishing compulsory national accreditation for all air ambulance providers,

[20] 42 C.F.R. § 410.41 (2024) and 42 C.F.R. § 414.610 (2024)
[21] Centers for Medicare & Medicaid Services. (2024). Conditions for Coverage (CfCs) & Conditions of Participation (CoPs)

regardless of Medicare participation. These approaches are outlined in Appendix H. Of these options, the Subcommittee chose two to bring forward to the full Committee.

The first option calls for establishing air ambulance operators as a new Medicare provider type for which accompanying CoPs could be used to establish baseline safety standards. While current statute prohibits CMS from regulating the practice of medicine through CoPs, this change would establish a more robust process for assessing compliance with appropriate safety standards and could become a platform for other recommendations to follow, such as requirements for quality programs or for patient safety data reporting.

The second option calls for compulsory accreditation of air ambulance operators participating in the Medicare program through CMS' deeming authority. This would allow CMS to recognize certain accreditation organizations as having standards for air ambulance operators that meet or exceed any CoPs established by Medicare. This would ensure compliance with meaningful and detailed standards at a national level given that CMS' CoPs cannot statutorily regulate the practice of medicine. Under this process, CMS would approve accrediting organizations that meet certain minimum standards. This accreditation requirement could be leveraged by existing accreditation organizations, which would make the transition fairly smooth for air ambulance operators that are already accredited. However, new accrediting organizations, or different types of accreditation programs, could also emerge to fill different market needs as long as they meet the minimum standards set forth by CMS.

The Subcommittee also acknowledged that there may be a need for exceptions or waivers of certain requirements for air ambulances operating in rural or frontier areas to ensure access is not negatively impacted, and suggested Congress establish these waivers in statute.

The Subcommittee recommended proceeding with the two options, acknowledging that the Committee could adopt both, one, or neither of the recommendations.

> **Subcommittee Recommendation:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.
>
> **Subcommittee Recommendation:** Congress should pass legislation to require compulsory accreditation for Medicare air ambulance providers. The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process must include periodic reassessment of compliance and must include exceptions or waivers for operators in rural/frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes.

Committee Discussion and Voting

Several Committee members expressed their support for the recommendations, agreeing with the need to prioritize patient safety and recognize the quality of care provided by air ambulance operators. When asked whether there was current research or data that could provide insight into the current state of clinical quality and patient safety in air ambulances, the Subcommittee noted

the challenges associated with conducting such evaluations given the varying standards of care across state lines. They pointed out that the need for data suitable for analysis adds to the rationale for consistent standards implemented across service providers and patient locations. They acknowledged the need to be forward-thinking about how the industry needs to evolve, the importance of ensuring person-centered care and considering patient needs and perspectives, and the need to ensure that patients receive the best care regardless of where they receive care. These recommendations can serve as a first step in improving the quality of care delivered in air ambulances through a "whole of government" approach through partnership between HHS and DOT.

There was general agreement with the goal of establishing air ambulance services as a CMS provider type and that doing so would enable the establishment of minimum clinical safety standards to promote a common performance baseline across the industry. Committee members also noted the desire to have air medical recognized as a healthcare provider delivering complex medical services critical to the healthcare ecosystem, rather than simply a supplier of transportation services. Committee members raised concerns that the recommendation for compulsory accreditation for air ambulance providers seeking Medicare reimbursement would position CMS to become another regulatory body for safety in addition to the FAA, potentially creating overlapping regulatory roles and requirements and additional administrative burden. Committee members shared their concerns over possible conflicting requirements and unintended consequences that could impact aviation operations, and potential confusion about the agencies' respective roles and responsibilities. CMS offered that the scope of agency authorities can be defined clearly, and that clinical requirements overseen by CMS would not preclude FAA's continued oversight of flight safety. The Subcommittee clarified that the recommendations focus on the care delivered in the "back of the aircraft" rather than cockpit operations and that both recommendations were intended to reflect the need for a minimum baseline level of care.

The Committee discussed how to best address clinical standards for air ambulance operators in rural and frontier areas with the potential for waivers or exemptions to provide flexibilities for some operators. Committee members offered concerns that imposing a minimum national standard might limit access to care, acknowledging the tradeoffs of promoting baseline standards of care while ensuring access to care. At times, flexibilities may be needed to ensure there is access to a basic level of emergency transport in communities that are resource constrained. The Committee noted the importance of implementing consistent clinical standards nationwide, noting that waivers or exemptions should be used sparingly, and only when strictly necessary, such as in very remote frontier areas. Because many air ambulances operate in rural areas, Committee members argued that rural operators should not receive blanket exemptions from minimal national requirements, though there was acknowledgement that some waivers or exemptions might be needed to ensure access to care in resource-constrained or frontier areas such as Alaska. CMS acknowledged the tension of accounting for variances in resources and geography so that operators are able to serve their communities without promoting a two-tiered system of quality and safety. Congress and CMS have experience with developing solutions in these types of scenarios, noting examples of allowing some communities an extended period of time to meet compliance standards, state-level exemptions, or providing categorical hardship exemptions, such as for communities of a certain size. CMS noted that waivers set by Congress in statute with clear

eligibility criteria, delineation of oversight authority (i.e. local, state, federal [including between agencies], etc.), and renewal processes are the preferred regulatory strategy in these cases.

The Committee discussed the process through which CMS would evaluate accreditation programs, the specific criteria that would be utilized to do so, and how CMS would oversee accrediting organizations to ensure they follow good processes to set their individual standards. CMS clarified that CMS's CoPs (which Accrediting Organizations [AOs]) standards must align with) would be established through rulemaking and public comment and noted that CMS reviews AO requirements to ensure that they meet or exceed the CoPs as well as the AO's financial solvency, among other important attributes.

The Committee voted to adopt AAQPS Recommendation 3 (which recommended Congress establish air ambulance as a provider type regulated by Medicare), with nine Committee members in favor, two opposed, and three abstaining. Because of the lack of convergence on compulsory accreditation, a motion was brought to strike this recommendation, which was seconded. The Committee voted to strike the proposed recommendation on accreditation, with 10 Committee members voting in favor of striking the proposed recommendation, one opposed, and two abstaining.

AAQPS Recommendation 3

Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.

Chapter 2: Recommendations on Patient Safety and Quality Standards

Section 106(g)(4)(B) of the No Surprises Act directs the AAQPS Committee to study and make recommendations, as appropriate, to Congress regarding air ambulance patient safety and quality standards.

Patient safety requires consistent application of healthcare standards and transparent data sharing on clinical outcomes and critical safety issues to drive systemic improvements. In the absence of a standardized framework for measuring clinical safety and quality in the air ambulance setting, differences across operators in clinical equipment availability, medical training requirements, and safety processes can result in disparate patient experiences and outcomes. When air ambulance operators lack access to data on patient status and outcome after transport, their effectiveness at improving the quality and safety of care delivered enroute is limited. To ensure a baseline standard of clinical safety and quality aboard air ambulances across the country, the Committee focused its safety and quality recommendations on standardizing measurement and reporting and improving data access.

2.1 Promoting a Just Culture Framework for Patient Safety

Background

Quantifying the scope and severity of medical errors is challenging, and studies have shown that rates of harm are often underestimated due to underreporting.[22] The identification and management of clinical risk is contingent upon frontline medical personnel reporting unsafe conditions and incidents, whether harm occurred or not. For this to occur, medical crew members must trust that they will not be retaliated against for reporting safety events, risks, harms, or errors. Several flight safety frameworks exist in the aviation industry, including the Aviation Safety Action Program (ASAP)[23] and Safety Management System (SMS).[24] The FAA requires that Part 135 operators and air carriers have a Part 5 compliant SMS in place that follows four functional components: safety policy, safety risk management, safety assurance, and safety promotion.[25] While there are many foundational resources to evaluate and address root causes of adverse events as well as understand the factors that contribute to things that go well in complex systems, there is currently no consistently used, non-retaliatory framework for advancing patient safety in the air ambulance setting analogous to the ASAP or SMS for aviation safety.

Subcommittee Recommendation

The Clinical Standards Subcommittee discussed the concept of "just culture" in patient safety, defining it as an approach to accountability and organizational learning that supports healthcare professionals, teams, and systems working collaboratively to ensure high-quality care while minimizing harm and improving outcomes. A just culture recognizes that while human errors are inevitable in complex care environments, most adverse events result from system vulnerabilities rather than individual negligence. It fosters psychological safety, transparency, trust, and continuous improvement for staff, who are empowered and expected to report errors, near misses, and unsafe conditions without fear of retribution. Further, it promotes shared accountability: organizations are responsible for designing systems to mitigate risk to the highest degree possible, and individuals are responsible for reporting system vulnerabilities and for the quality of their choices within those systems.[26]

The four components of an SMS directly align with this concept of "just culture;" however, the SMS does not include specific clinical operations or patient safety requirements. A newly required

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[22] Mitchel, I., Schuster, A, Smith, K., Pronovost, P., & Wu, A. (2015). Patient safety incident reporting: a qualitative study of thoughts and perceptions of experts 15 years after '*To Err is Human*'. BMJ Quality & Safety, *25*(2), 92–99. https://doi.org/10.1136/bmjqs-2015-004405

[23] Federal Aviation Administration (2025). Aviation Safety Action Program

[24] Federal Aviation Administration (2024). Safety Management System

[25] 14 CFR Part 135 governs on-demand, unscheduled air service, also known as charter type services. Air carriers authorized to operate with a 135 certificate (Part 135 operators) vary from small single aircraft operators to large operators that often provide a network to move cargo to larger scheduled service air carriers. (Source: FAA Website Air Carrier Operations, Available at Charter-Type Services (Part 135) | Federal Aviation Administration)

[26] Murray, J. S., Clifford, J., Larson, S., Lee, J. K., & Sculli, G. L. (2022). Implementing just culture to improve patient safety. *Military Medicine* 188(7-8), 1596—1599. https://doi.org/10.1093/milmed/usac115

measure in CMS's Hospital Inpatient Quality Reporting Program[27] – the Patient Safety Structural Measure (PSSM) – does provide such a blueprint to advance patient safety, and the pillars of this structural measure largely align with the SMS (and therefore would be familiar to the aviation industry). The PSSM measures organizational attributes that contribute to safety rather than performance or patient outcomes. As an attestation-based measure, hospitals report their compliance to CMS based on self-assessment; the score is publicly reported, but there is no associated penalty or incentive.

The Subcommittee agreed it was important to not only set minimum clinical standards for all operators (see Section 1.3), but also to have a shared framework and vision for continuing to advance patient safety in the air ambulance setting. Approaches considered by the Subcommittee to advance such a framework included adding new patient safety requirements to the SMS, developing a specific PSSM for air ambulance, adding the PSSM to the SMS, and establishing a new reporting mechanism to report PSSM to HHS. These approaches are outlined in Appendix H.

After considering benefits and challenges associated with each approach, the Clinical Standards Subcommittee decided to recommend the development of an air ambulance patient safety structural measure similar to the PSSM and to recommend that Congress direct HHS to create a new mechanism for air ambulance patient safety reporting. These actions would establish a blueprint for air ambulance operators and staff to advance patient safety beyond Medicare Conditions of Participation and voluntary accreditation requirements, using a framework that is complementary to existing SMS requirements and familiar to the aviation industry. Operators would be able to integrate clinical and flight safety programs without creating duplicative silos, potentially using an integrated management system (IMS) to meet requirements for both PSSM and SMS.

Emphasizing the need for a consistently used patient safety framework that merges existing clinical and aviation mechanisms and follows principles of a non-retaliatory just culture, the Clinical Standards Subcommittee made the following recommendation:

> **Subcommittee Recommendation:** Congress should direct HHS to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulances which includes reporting on the PSSM.

The reporting mechanism could be required, voluntary, or incentivized through a CMS quality reporting program.[28] The initial use of an attestation measure such as the PSSM would establish a blueprint for advancing safety without financial penalties on organizations that do not meet all of the criteria, while also creating a platform for additional measures and/or pay-for-performance incentives in the future. This approach is not within current HHS statutory authority and would require legislation.

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[27] Centers for Medicare & Medicaid Services. (2024). FY2025 Hospital Inpatient Prospective Payment System (IPPS) and Long-Term Care Hospital Prospective Payment System (LTCH PPS) Final Rule – CMS 1808-F

[28] Guidance from the CMS Clinical Standards Group suggested that in addition to clear statutory authority from Congress to stand up a new quality program, the necessity of air ambulance to be recognized as a CMS provider type to report data to CMS would be referred to the CMS Quality Measurement and Value-Based Incentives Group.

Committee Discussion and Voting

After discussion of the benefits and challenges associated with each option, Committee members voiced their support for the recommendation. Recognizing the harm associated with preventable medical errors as a national issue, Committee members noted the importance of fostering a learning culture to drive meaningful safety results. Experiences in the aviation industry demonstrate that regulation works best with a strong and healthy culture that allows individuals to come forward with identified risks and solutions.

Committee members lauded the shared vision framework for the industry, particularly the potential for an integrated risk, safety, and quality management system across aviation and clinical operations. Because the air medical industry operates at the intersection of two complex and high-consequence industries, a systematic approach is needed to manage clinical hazards and risks and meet reporting responsibilities to both FAA and to hospitals. Committee members discussed the success of similar aviation initiatives such as the ASAP and the SMS, suggesting current mechanisms should be kept in place as a new PSSM measure and reporting mechanism are adopted.

Concern was raised over enforcement authority for such a measure, with one member noting that FAA regulates flight safety and therefore does not have the authority to protect those who report clinical safety concerns. However, Committee members discussed protections provided for voluntary reporting to Patient Safety Organizations (PSOs), and the Patient Safety and Quality Assurance Act of 2005, which provides such protections in the healthcare space and may extend to pre-hospital providers as well.

Committee members voted unanimously to adopt AAQPS Recommendation 4.

AAQPS Recommendation 4

Congress should direct HHS to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulance which includes reporting on the PSSM.

2.2 Improving Access to Patient Clinical Data

Background

Given the importance of data collection and reporting to clinical quality improvement, timely and transparent information on patient status and outcomes following air transport is critical to continuous quality improvement of air ambulance services. Currently, it can be difficult for air ambulance providers to access follow-up information on patient clinical data after transfer of care, limiting quality improvement activities and negatively impacting crew wellbeing. Though clinical care provided enroute to a hospital can make a meaningful difference in the patient's condition upon arrival and their ultimate clinical outcomes, air ambulance providers often do not receive information about how the patient fared after transfer, making it difficult to identify opportunities for improvement. Further, because of the emotional intensity of air ambulance care, knowing how

patients ultimately fare can positively impact crew wellbeing. Information exchange is hampered by providers' concerns over Health Insurance Portability and Accountability Act (HIPAA) compliance (sometimes erroneously) as well as the lack of infrastructure for health information exchange (HIE) as they both relate to air ambulance providers.

HIPAA provides regulations describing the circumstances under which disclosure of personal health information (PHI) is permitted without first obtaining an individual's authorization. Under HIPAA, a Covered Entity (CE) can disclose PHI to another CE (or a CE's business associate) for treatment, payment, and healthcare operations purposes, as well as for a subset of healthcare operations activities, including "conducting quality assessment and improvement activities" and "conducting patient safety activities as defined in applicable regulations."[29] Regulations also provide definitions of business associates and requirements to meet that definition. Through its recommendations, the Committee sought to address the lack of clarity in the industry about limitations on data sharing that may apply to air ambulance operators under HIPAA and reports of hospitals declining to share patient clinical data after transfer due to privacy and legal concerns.

Use of HIE infrastructure has grown in recent years, with 70% of non-federal acute care hospitals in the U.S. sending, finding, receiving, and integrating data as of 2023.[30] Despite growing adoption of HIE in hospital-based settings, there is mixed use of existing HIE infrastructure by air ambulance providers. Because there is no standard process for bidirectional data exchange, air ambulance providers must make an individual information request for each case, creating burden for both them and the receiving hospital. A lack of data standards can lead to variance in what data is received in response to these requests.

Subcommittee Recommendations

Recognizing the importance of patient outcome data for the purposes of quality improvement and crew wellbeing, the Clinical Standards Subcommittee proposed two related recommendations regarding HIPAA requirements and infrastructure for data exchange. In developing these recommendations, the Subcommittee considered several options, including clarifying HIPAA restrictions; bolstering existing HIE efforts; establishing a committee for further study; and requiring hospitals to share patient clinical data. These options to improve access to patient outcome data are described in Appendix H.

From these options, Subcommittee members developed two recommendations to address key barriers to bidirectional data exchange, including uncertainty around HIPAA protections and limited uptake of HIE by air ambulance providers. HHS currently has oversight of HIPAA compliance and can provide guidance on HIPAA data sharing to hospitals and air ambulance providers. The Subcommittee suggested that HHS guidance to hospitals and air ambulance providers on HIPAA application in these scenarios would be straightforward to implement, and funding to bolster HIE efforts would leverage existing technical infrastructure and make use more likely.

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[29] HIPAA Permitted Uses and Disclosures: Exchange for Health Care Operations; 45 CFR 164.506(c)(4)

[30] Department of Health and Human Services, Assistant Secretary for Technology Policy (2024). Interoperable Exchange of Patient Health Information Among U.S. Hospitals: 2023. ONC Data Brief (71). Retrieved June 12, 2025, from Interoperable Exchange of Patient Health Information Among U.S. Hospitals: 2023 | HealthIT.gov

Subcommittee Recommendation: HHS should issue guidance to hospitals and air ambulance providers clarifying that HIPAA does not prevent sharing patient clinical data for quality improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.

Subcommittee Recommendation: Congress should provide additional funding to bolster existing state and federal efforts to develop and promote HIE. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.

As HIE is increasingly leveraged across the continuum of care, air ambulance providers should have the same access to information as other providers to support coordination and improvement efforts. The Subcommittee emphasized that these recommendations would allow air ambulance operators to assess the impact of their services with an eye toward identifying opportunities for improvement in clinical care and patient outcomes.

Committee Discussion and Voting

Members of the Clinical Standards Subcommittee presented the recommendations, acknowledging that these are incremental improvements on the current state rather than major changes, and thus have potential for limited impact on the status quo. They also noted that because HIEs are largely run by states, variations in processes and progress may hinder implementation. Because the scope and root causes of data access problems in the air ambulance setting are not well studied, it is unclear whether addressing these efforts alone will improve HIE and access to relevant clinical information, but these recommendations would help to address two commonly cited barriers noted by Committee members.

After hearing this background, as well as the challenges and benefits associated with all options, Committee members voiced their support for the two recommendations. Among the points of support were that the exchange of clinical data is essential for continuity of care and to determine whether providers are delivering high-quality care. Additionally, using data to evaluate industry trends related to patient safety (as is done in the aviation industry) further supports the recommendation and allows for the study of aviation and clinical safety management trends at a systemic level. Insights on outcomes of patients who rely on air ambulance services may also benefit other quality improvement and research efforts.

Some Committee members suggested that hospital-based air medical programs have been successful in HIE, such as in trauma systems with mandatory data exchange policies. One member shared that an HIE in Maine includes ambulances and hospitals, and while it may require upfront investment, there is precedent to show that it is legally possible within the confines of patient privacy laws.

Committee members agreed that clarity on HIPAA restrictions would likely address hospital concerns about data sharing, noting that consequences of HIPAA violations might increase hesitancy to expand data sharing activities. Subcommittee members asserted that the intention of the recommendations was not to create additional burden on hospitals, but rather to standardize

and provide clarity around what data hospitals could exchange in accordance with HIPAA requirements, including clarification on release forms and paperwork.

Recognizing patients as the "third set of eyes" in the clinical setting, Committee members also emphasized the importance of data transparency for patients. Data sharing in the air ambulance setting should also include facilitating patient access to their own data. The Committee suggested referring to HHS the question of whether patients need to provide consent for release of their clinical data.[31]

The Committee voted to adopt AAQPS Recommendation 5, with 13 Committee members voting in favor, none opposed, and one abstaining. The Committee voted to adopt AAQPS Recommendation 6, with 12 Committee members in favor, none opposed, and two abstaining.

AAQPS Recommendation 5

HHS should issue guidance to hospitals and air ambulance providers clarifying that the Health Insurance Portability and Accountability Act (HIPAA) does not prevent sharing patient clinical data for quality improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.

AAQPS Recommendation 6

Congress should provide additional funding to bolster existing state and federal efforts to develop and promote health information exchange. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.

Chapter 3: Recommendation on Clinical Triage Criteria for Air Ambulances

Section 106(g)(4)(E) of the No Surprises Act directs the AAQPS Committee to study and make recommendations, as appropriate, to Congress regarding clinical triage criteria for air ambulances.

Clinical triage is essential to ensure that patients with time-sensitive, life-threatening medical conditions receive the most effective and timely care possible. The decision to transfer a patient from a rural hospital or a trauma or medical scene using air transport services is based on a number of factors including the severity and time-sensitive nature of the patient's condition, the extent of local healthcare system capabilities, the availability or capabilities of other transport services, and extenuating circumstances such as terrain or weather.[32] Beyond clinical criteria, a

[31] Following the AAQPS meeting, HHS provided clarification that the Data Blocking provision of the 21st Century Cures Act prevents healthcare providers and systems from unreasonably interfering with patient access to their own health data. More information can be found at HHS.gov/HIPAA/for-professionals.
[32] Isakov, A. (2009). Urgent air-medical transport: Right patient, place and time. CMAJ, 181(9), 569–570. https://doi.org/10.1503/cmaj.091258

number of complex factors, like geography and time sensitivity, can influence triaging decisions between air and ground transport. The Committee asserted that the burden of proof for denying claims based on medical necessity should fall to insurers, rather than to the providers and first responders who make rapid decisions in the best interest of the patient based on complex factors in emergency environments.

3.1 Medical Necessity Determinations

Background

The decision to order air medical transport is complex, and how patients are triaged to air medical transport (vs. ground transport or local care) factors in not only the patient's immediate clinical condition, but the relative availability and geography of clinical resources to treat that condition. Moreover, due to patient acuity and the emergent nature of such conditions, the ordering provider is often required to make rapid decisions with incomplete information. The ordering provider must exercise their best clinical judgment to determine the most effective course of action for the patient given the information they have available at the time. Air ambulance operators on the Committee reported that there are instances in which determinations of medical necessity are questioned after the fact, when additional information about the patient's condition or alternative options might be available- information that was not accessible to the ordering provider at the time the transport decision was made.

Air ambulance operators have reported that fear of claim denials can negatively affect the willingness of providers and patients to seek medically indicated air transport, presenting a risk to patient safety and potentially negatively affecting outcomes. Denied claims cause financial hardship for air ambulance operators and hospitals, resulting in lost revenue and opportunity costs associated with pursuing claims. Claims can be denied due to medical necessity based on information collected after the transport has occurred or without proper context regarding geography and the availability of local resources, even when the determination for air transport met triage standards (scene calls) or was certified by physician for air transport (interfacility transport) at the time of call.

Subcommittee Recommendation

In its 2022 report, the AAPB Committee made a recommendation to address the process for determining medical necessity. Specifically, the recommendation suggested that a physician's decision to order air transport should be presumed medically necessary under certain conditions, rather than defining clinical criteria for medical necessity that could apply to a wide range of conditions, populations, and scenarios. While the AAPB's recommendation primarily targets out-of-network claims, it importantly leverages an existing federal mechanism to address these issues. The No Surprises Act created an Independent Dispute Resolution (IDR) process that creates recourse for providers negotiating out-of-network claim denials. The AAPB Committee recommended that if a physician certifies the patient for air transport at the time of the call and the claim is later denied on grounds of medical necessity, the IDR process should include a "rebuttable presumption" of medical necessity, essentially putting the burden on the insurer to prove the transport was not medically necessary.

AAPB Committee's recommendation, modeled after Medicare's approach to medical necessity in the context of rural air ambulance service,[33] recognized that "… many air ambulance billing disputes result from determinations about the medical necessity of the transport. Based on concerns about requiring the arbitrator (who likely is not trained in medicine) to resolve complex questions about medical necessity, the Subcommittee recommended incorporating a provision establishing as a rebuttable presumption that a transport is medically necessary, provided that certain typical conditions are met (e.g., that the decision to order the transport was made by a financially neutral medical provider who reasonably determined that the time necessary to complete emergency transport by land would endanger the patient's health). To rebut the presumption, the payor may present evidence that the conditions were not met."[34]

The Subcommittee proposed to the Committee to adopt the AAPB recommendation to accept a physician order for air transport focusing on the process for determining medical necessity (specifically, indicating the conditions under which air transport ordered by a physician should be presumed to be medically necessary), rather than defining specific clinical criteria for medical necessity given the urgency, complexity, and clinical and operational judgment required for this type of critical decision-making. The Subcommittee felt that implementation of this recommendation would support air ambulance operators in addressing unpaid claims through the IDR process by shifting the burden of proof to insurers denying claims based on medical necessity, which could increase provider confidence when ordering medically indicated air transport.

> **Subcommittee Recommendation**: Congress should direct HHS to implement the AAPB recommendation* clarifying that there should be a "rebuttable presumption" in the No Surprises Act Independent Dispute Resolution (IDR) process that the air ambulance service was medically necessary for purposes of adjudicating payment disputes for out of network services.
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> *AAPB Recommendation #12: The Advisory Committee recommends that HHS should issue a regulation addressing medical necessity within the IDR process. Specifically, within the IDR process, there should be a rebuttable presumption that the air ambulance service was medically necessary, but an insurer can overcome that presumption by first presenting evidence that either the third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith.

The Subcommittee recognized that claim denials are not limited to out-of-network claims but noted that out-of-network claims may represent a substantial proportion of denials. This is consistent

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[33] PROVIDING APPROPRIATE COVERAGE OF RURAL AIR AMBULANCE SERVICES 42 U.S.C. § 1395m(l)(14)(B) (B) SATISFACTION OF REQUIREMENT OF MEDICALLY NECESSARY.—The requirement of subparagraph (A)(i) is deemed to be met for a rural air ambulance service if— (i) subject to subparagraph (D), such service is requested by a physician or other qualified medical personnel (as specified by the Secretary) who reasonably determines or certifies that the individual's condition is such that the time needed to transport the individual by land or the instability of transportation by land poses a threat to the individual's survival or seriously endangers the individual's health; or (ii) such service is furnished pursuant to a protocol that is established by a State or regional emergency medical service (EMS) agency and recognized or approved by the Secretary under which the use of an air ambulance is recommended, if such agency does not have an ownership interest in the entity furnishing such service.

[34] U.S. Department of Transportation. (2022). A Report of the Air Ambulance and Patient Billing Advisory Committee

with a GAO report that approximately 69 percent of air ambulance transports in 2017 were out-of-network.[35] Therefore, it recommended leveraging the existing IDR mechanism authorized under the No Surprises Act and the AAPB Committee's recommendation on this topic. The Subcommittee did not identify a corresponding federal mechanism to address in-network claim denials but acknowledged this as an area where further exploration and input from the broader Committee would be of value.

Committee Discussion and Voting

The Committee engaged in a substantive discussion about the recommendation's focus on billing issues and post-transport processes as opposed to specific triage criteria and how this aligns with the statutory charge for the Committee to study clinical triage criteria. The Subcommittee reiterated concerns about defining specific triage criteria that may not be suited for all specific markets and geographic areas and emphasized the importance of addressing the impact of post-hoc claim denials on medical decision-making regarding appropriate and safe use of air ambulance services.

Committee members generally agreed about the complexity and potential unintended consequences of creating a national triage standard that would reflect the wide variation in clinical, regional, geographical, and resource issues in the United States. They also agreed that triage decisions, which are generally made in good faith by providers and first responders trained in triage, should be honored as part of the payment process. Several members advocated for decentralized decision-making that relies on physician and EMS provider expertise, which can be improved by using nationally validated triage criteria and scoring mechanisms. Another suggestion was made to modify the recommendation to focus on developing guidelines for triaging through an HHS advisory group, which could provide a framework for state regulators to reference when addressing medical necessity disputes or taking enforcement actions, making the recommendation more actionable and aligned with existing processes.

The Committee discussed the IDR process at length, noting that it specifically excludes considerations of medical necessity and focuses solely on out-of-network billing disputes. Patients denied coverage due to medical necessity determinations undergo separate appeals processes outside the IDR framework. While some supported the recommendation of establishing a "rebuttable presumption" of medical necessity as a way to strengthen the credibility of triage decisions, others noted that courts have struck down similar provisions in the past. Section 415 of the Medicare Modernization Act of 2003[36] and Medicare regulations provide a national standard for medical necessity that incorporates considerations of rurality, geography, and state protocols. Members reinforced the importance of accounting for geographical and resource constraints in rural and frontier areas when determining medical necessity, clarifying that these factors are inherently tied to clinical circumstances. Some members raised further concerns about the procedural aspects of the recommendation as written, including the circular nature of directing HHS to act on a recommendation that the Department did not implement because the IDR process

[35] Government Accountability Office. (2019). Air Ambulance: Available Data Show Privately-Insured Patients Are at Financial Risk

[36] Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Pub. L. No. 108-173, 117 Stat. 2066

explicitly excludes determinations of medical necessity and claim denials. The Committee modified the recommendation to better reflect the intent behind the original AAPB Committee's recommendation, about establishing a rebuttable presumption of medical necessity, without focusing specifically on the IDR process.

Committee members requested that the recommendation reflect the importance of adhering to triage decisions made on the ground and focusing specifically on emergency (versus non-emergency) air ambulance transports. They discussed the importance of preventing overuse or misuse of air ambulance services, particularly in cases where membership programs or incentives might lead to unnecessary transports. The Committee worked collaboratively to refine the recommendation to address these concerns and reinforced the importance of addressing geographic and resource-based challenges and preserving existing state authority on medical necessity determinations. Furthermore, the Committee removed the reference to the IDR process.

The Committee voted to adopt AAQPS Recommendation 7, with 10 Committee members in favor, none opposed, and three abstaining.

AAQPS Recommendation 7

Congress should mandate implementation of the Air Ambulance and Patient Billing Advisory Committee recommendation* clarifying that there should be a "rebuttable presumption" that an emergency air ambulance service was medically necessary, if consistent with provisions of Section 415 of the Medicare Modernization Act of 2003, but an insurer can overcome that presumption by presenting evidence that clinical circumstances known at time of transport did not support medical necessity for the transport, third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith.

*AAPB Recommendation #12**:** The Advisory Committee recommends that HHS should issue a regulation addressing medical necessity within the IDR process. Specifically, within the IDR process, there should be a rebuttable presumption that the air ambulance service was medically necessary, but an insurer can overcome that presumption by first presenting evidence that either the third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith.

Chapter 4: Recommendations on Options for Improving Service Reliability During Poor Weather, Night Conditions, or Other Adverse Conditions

Section 106(g)(4)(C) of the No Surprises Act directs the AAQPS Committee to study and make recommendations, as appropriate, to Congress regarding options for improving service reliability during poor weather, night conditions, or other adverse conditions.

Many air ambulances operate in low-altitude environments and in uncontrolled airspace that is not serviced by radar or air traffic control.[37] Therefore, the Committee focused recommendations on addressing the infrastructure, standards, and technology needs specific to this operating environment.

4.1 Enhancing Weather Reporting and Infrastructure in Non-Terminal Areas

Background

Adverse weather creates significant challenges for smaller aircraft, especially helicopters that take off and land at small, private, hospital helipad and scene locations (non-terminal areas) rather than large, well-equipped airports with full weather forecasts. Weather information for flights close to the ground – below 5,000 feet – is often incomplete or unavailable, particularly in non-terminal areas where there are fewer weather stations and limited access to approved weather sources.

Aviation weather services are primarily designed for aircraft operating between airports. Pilots are frequently unable to accept or complete patient transport requests by helicopter due to the lack of highly detailed, approved weather sources in areas that are not near airports. This lack of detailed and reliable weather data can make it difficult for helicopter crews to safely complete missions. Pilots must evaluate the available approved weather sources to make go/no-go decisions. The lack of comprehensive weather data, particularly for scene locations, increases the risk of aircraft encountering poor visibility, dangerous weather conditions, or inadvertent instrument metrological conditions (IIMC). IIMC encounters can disrupt the flight and put crew and patients at risk[38] and are often difficult for lower-altitude operations to avoid due to an inability to fly above adverse weather. This vulnerability to IIMC is one of the leading contributors to air ambulance accidents.

Furthermore, most low-altitude or area specific sensors, including Automated Surface Observing Systems (ASOS), Automated Weather Observing Systems (AWOS), and Terminal Doppler Weather Radar (TDWR) are located at airports.[39,40] This leads to reliance on regional forecasts that may not accurately reflect the weather conditions at specific locations within the region. Weather cameras and other visual weather observation systems can provide lower-cost enhanced weather information in non-terminal areas, which would support safer air ambulance operations during all phases of flight.

The National Airspace Data Interchange Network (NADIN) receives, processes, and distributes approved weather observations and forecasts, including those from the National Weather Service (NWS) and the FAA,[41] ensuring pilots have reliable information for flight planning. However, historic limitations on the types of weather sensor technologies permitted within NADIN have slowed the

[37] FAA (n.d.) Air Traffic Publications Glossary
[38] For example, the NTSB found that IIMC contributed to a helicopter air ambulance collision with terrain near Zaleski, Ohio in 2019. Helicopter Air Ambulance Collision with Terrain, Survival Flight Inc., Bell 407 Helicopter, N191SF, near Zaleski, Ohio, January 29, 2019
[39] FAA (2024). Aviation Weather Handbook
[40] FAA (2024). Terminal Doppler Weather Radar (TDWR)
[41] FAA (n.d.). Terms of Reference

integration of advancements in sensor technology and the adoption of lower-cost sensors that have become more widely available in recent decades. The FAA Weather Center forecasts are tied to the NADIN which limits the information from which tools like the Graphical Forecast for Aviation-Low Altitude (GFA-LA) can draw for observational data, forecasts, and warnings.

Subcommittee Recommendation

Flight Safety Subcommittee members stated that enhanced weather reporting systems can reduce the risk of accidents caused by unexpected weather changes. Real-time, localized weather data would equip pilots with essential information about conditions along flight routes and at departure and landing zones and enable better aeronautical decision making. In addition to improving safety, pilot access to more accurate weather data and approved sources can also improve the efficiency of air ambulance services, ensuring timely and reliable medical assistance.

To address gaps in weather reporting and enhance operational safety while fostering innovation in weather reporting technologies, the Flight Safety Subcommittee proposed the following recommendation:

> **Subcommittee Recommendation:** Congress should allocate funding to expand weather services in non-terminal areas and invest in the research and development of new and innovative weather reporting and forecasting technologies through targeted grants and initiatives. Congress should direct the FAA to expand access to FAA-approved sources of real-time weather data and advanced predictive capabilities, prioritizing non-terminal areas. This effort should prioritize:
>
> - Deploying additional new Visual Weather Observation Systems (VWOS).
> - Installing weather cameras to enable real-time monitoring across the United States.
> - Increasing access to Terminal Doppler Weather Radar (TDWR) systems.
> - Enhancing surface detection capabilities, improving forecasting accuracy, and advancing predictive analysis tools.
> - Integrating approved weather sources into the National Airspace Data Interchange (NADIN) for Graphical Forecasts for Aviation – Low Altitude (GFA-LA).

Funding would be required, including funding for the NWS. The NWS provides meteorological expertise and forecasts, while the FAA uses this information to make operational decisions and manage air traffic. Both agencies collaborate on research and development to improve aviation weather forecasting. Furthermore, deploying weather tools, including sensors and cameras, may be more difficult in some geographical areas. However, while the Subcommittee's recommendation focuses on air ambulance operations, an investment in weather reporting capabilities would benefit all low-altitude and non-terminal aviation operations that utilize the National Airspace System (NAS).

Committee Discussion and Voting

Members of the Flight Safety Subcommittee emphasized the need to expand the network of sensors and to integrate data from these sensors into the NADIN. The Subcommittee stated that

VWOS, cameras, TDWS, and graphical forecasts are especially important for low-altitude operations. Expanding access to additional approved sources of real-time weather data and advanced predictive capabilities would require investment in research and development of emerging technologies and FAA-approval for integration into the NADIN.

Members of the Committee voiced their support for this recommendation, recognizing it as a fundamental issue to improve safety. An FAA representative cited FAA data showing approximately 370,000 patient transports and 330,000 flight requests declined in 2024[42] with many of those denials due to insufficient weather data for informed decision making. Another Committee member agreed that expanding access to weather reporting technology would improve safety and accessibility.

The Committee voted to adopt AAQPS Recommendation 8, with 12 Committee members in favor, none opposed, and two abstaining.

AAQPS Recommendation 8

Congress should allocate funding to expand weather services in non-terminal areas and invest in the research and development of new and innovative weather reporting and forecasting technologies through targeted grants and initiatives. Congress should direct the Federal Aviation Administration (FAA) to expand access to FAA-approved sources of real-time weather data and advanced predictive capabilities, prioritizing non-terminal areas. This effort should prioritize:

- Deploying additional new Visual Weather Observation Systems (VWOS).
- Installing weather cameras to enable real-time monitoring across the United States.
- Increasing access to Terminal Doppler Weather Radar (TDWR) systems.
- Enhancing surface detection capabilities, improving forecasting accuracy, and advancing predictive analysis tools.
- Integrating approved weather sources into the National Airspace Data Interchange (NADIN) for Graphical Forecasts for Aviation – Low Altitude (GFA-LA).

4.2 Improving Low-altitude IFR Infrastructure

Background

Instrument flight rules (IFR) are regulations established by the FAA to govern aircraft operations when flying by reference to instruments. Aircraft are required to operate under IFR during instrument meteorological conditions – when visibility and cloud clearance are below the minimums required for visual flight rules (VFR) – and in Class A airspace, which extends from 18,000 feet MSL (above mean sea level) up to and including Flight Level 600 (60,000 feet).[43] IFR operations are the standard under which commercial airline operations are conducted, and the

[42] FAA (2025). Helicopter Air Ambulance (HAA) Operations Data
[43] FAA (2012). Instrument Flying Handbook

FAA requires pilots to maintain IFR proficiency to operate in the IFR system. Air Traffic Control (ATC) provides standard separation between aircraft operating under IFR.[44] Despite many Helicopter Air Ambulance (HAA) operators having IFR capable aircraft, the lack of necessary IFR infrastructure hinders IFR adoption in the HAA industry. Specifically, many heliports do not have instrument approaches and departures, which would be required for HAA to operate into or out of these locations under IFR. Furthermore, there are relatively few IFR routes available for the altitudes at which helicopters operate.

HAA operations face significant limitations due to the lack of low-altitude IFR infrastructure, including IFR approaches to helipads. This restricts operations during poor weather, delays patient transport, and increases safety risks. The complexity of accessing the IFR system and the absence of mandated standards for helipad design exacerbate these challenges, hindering reliable and timely emergency medical services. Additionally, the rapid growth of low-altitude aviation, including drones/unmanned aircraft system (UAS) and advanced air mobility (AAM) vehicles, is increasing airspace congestion near hospitals and airports, potentially delaying critical life-saving missions. While many of these limitations are focused on HAA, fixed-wing aircraft, traversing low-altitude airspace during take-off and landing, will also be impacted by UAS and airspace congestion.

Expanding low-altitude IFR infrastructure is vital for improving HAA operations, enhancing safety, and ensuring reliable patient transport during poor or low-visibility weather conditions. Furthermore, this expansion would improve access to air ambulance services in rural areas which currently have little IFR infrastructure.

With the introduction of UAS and future AAM vehicles, low-altitude aviation has become the fastest growing sector in the national airspace. HAA are particularly vulnerable to the potential impacts of airspace congestion resulting from this growth. The rising congestion underscores the importance of encouraging low-altitude traffic to operate under IFR, which facilitates standard aircraft separation. Developing a comprehensive traffic management framework for all low-altitude operations would enable more coordinated and efficient operations in an increasingly crowded airspace. Even where IFR routes are in use, some Global Positioning System (GPS) routes are independently developed and proprietary. This can lead multiple operators to use separate procedures for similar operations, which can complicate ATC oversight.

Subcommittee Recommendation

Access to a dedicated low-altitude IFR infrastructure reduces VFR reliance, thereby reducing weather-related risks and facilitating more reliable patient transport, improving safety and access. A traffic management framework for UAS drones and AAM would reduce potential airspace conflicts and ensure safe integration of emerging technologies and air ambulance operations. Modernizing helipad capabilities and establishing a traffic management framework for UAS and AAM vehicles would improve the resiliency of the airspace and support coordinated operations. Taken together, IFR investments would strengthen rural healthcare access and address the evolving needs of emergency medical transport.

[44] FAA (n.d.). ATC Clearances and Aircraft Separation

To address the limitations of low-altitude IFR infrastructure, the Flight Safety Subcommittee proposed the following recommendation:

Subcommittee Recommendation: Congress should:

- Direct the FAA to develop low-altitude IFR routes and enhance air traffic control (ATC) capabilities.
- Increase Helicopter Air Ambulance (HAA) use of the IFR system by funding the required infrastructure and directing the FAA to adopt policies and procedures to support its use by all low-altitude aircraft, crewed and uncrewed.
    - Infrastructure needs include adding additional Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters,[45] radar systems, controller–pilot data link communications (CPDLC),[46] and communication equipment and incentivizing hospitals and operators to adopt IFR-compatible infrastructure.
    - Necessary policies and procedures include expansion of low-altitude IFR routes and approaches, including an HAA Performance-Based IFR route structure.
- Direct the FAA to develop a traffic management framework to mitigate risks associated with the growth of unmanned aircraft system (UAS) and advanced air mobility (AAM) operations.

Involving the FAA in standardizing independently developed routes would help streamline procedures and improve coordination. However, some challenges to improving low-altitude IFR infrastructure exist. There are logistical and regulatory complications to developing IFR routes and upgrading infrastructure. Hospitals and air ambulance operators may find IFR-compatible upgrades to be cost prohibitive, even with funding incentives. Furthermore, without increased funding the FAA may not have adequate resources for the added oversight and support necessary to improve low-altitude IFR functions.

Committee Discussion and Voting

Several Committee members requested clarification on proprietary routes. Proprietary routes are developed and maintained by private organizations and may have proprietary special criteria, including aircraft performance or equipment criteria or special crew training. These Special Instrument Flight Procedures (Special IFPs) are not published in the Federal Register or printed in government Flight Information Publications. Many helicopter procedures are proprietary, and the number of available procedures has increased approximately ten-fold since 2007. Consequently,

[45] ADS-B is the current preferred system for tracking aircraft, with more frequent sampling than terminal radar and easier deployment. However, there are gaps in ADS-B coverage, especially at low-altitude. Source: FAA Ins and Outs | Federal Aviation Administration

[46] CPDLC is a system that allows air traffic controllers and pilots to communicate via text-based messages rather than traditional voice communications over VHF or HF radio frequencies. CPDLC is part of the broader move toward modernizing air traffic management systems and improving communication efficiency, especially in congested or remote areas.

there are regions where separate HAA organizations conduct operations on independently developed procedures, sometimes using different proprietary approaches to the same hospital. Committee members stated that FAA oversight is of increasing significance as low-altitude traffic continues to grow. Currently, the majority of public IFR investment supports Part 121 operations,[47] and the Committee expressed a need for similar investment and oversight for low-altitude operations. The benefits of greater FAA involvement in managing low-altitude airspace underscores the need for a Congressional mandate, which would provide the investment and authority necessary to equip the FAA with adequate resources and clear directives.

Another Committee member discussed other examples of infrastructure that could be expanded to improve service reliability. The first example was CPDLC, which is a system that allows air traffic controllers and pilots to communicate via text-based messages rather than traditional voice communications over very high frequency (VHF) or high frequency (HF) radio frequencies. Expanding CPDLC to helicopters would facilitate faster issuance of IFR clearances and provide access in areas with poor radio communications. The second example of infrastructure investment was provided from the Northeast, involving an FAA program using low-level ZK routes[48] for helicopters to avoid icing conditions. While national implementation would require participation from the aviation, healthcare, and government sectors, increasing such infrastructure would improve crew safety and allow for more frequent patient transport and fewer declined transport requests. One Committee member stated that public investment in infrastructure to support air ambulance services is required because these are essential services for healthcare access and therefore are a public good.

The Committee discussed the cost for hospitals. If a hospital chose to develop privately funded procedures, initial development of each instrument procedure would cost approximately $30,000 and an IFR route would cost from approximately $30,000 to over $100,000 depending on the complexity and size. Maintaining these procedures after initial development would also incur recurring costs, though these would be lower than the initial development costs. However, if these procedures were developed by the FAA, hospitals would not incur development or maintenance costs.

The Committee voted to adopt AAQPS Recommendation 9, with 12 Committee members in favor, none opposed, and two abstaining.

[47] Part 121 operations refers to operations conducted under 14 CFR Part 121 which governs regularly scheduled air carriers, including most commercial airlines.

[48] Low-level ZK routes are specific flight paths designed for aircraft flying at lower altitudes, typically below 18,000 feet, and are part of the "ZK" system, a network of low-altitude enroute performance-based navigation (PBN) routes managed by the FAA. These routes help pilots follow predefined paths, which avoid obstacles or restricted areas, and are used for safe and organized air traffic management.

AAQPS Recommendation 9

Congress should:

- Direct the Federal Aviation Administration (FAA) to develop low-altitude Instrument Flight Rules (IFR) routes and enhance air traffic control (ATC) capabilities.
- Increase Helicopter Air Ambulance (HAA) use of the IFR system by funding the required infrastructure and directing the FAA to adopt policies and procedures to support its use by all low-altitude aircraft, crewed and uncrewed.
    - Infrastructure needs include adding additional Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters, radar systems, controller–pilot data link communications (CPDLC), and communication equipment and incentivizing hospitals and operators to adopt IFR-compatible infrastructure.
    - Necessary policies and procedures include expansion of low-altitude IFR routes and approaches, including a Helicopter Air Ambulance (HAA) Performance Based IFR route structure.
- Direct the FAA to develop a traffic management framework to mitigate risks associated with the growth of unmanned aircraft system (UAS) and advanced air mobility (AAM) operations.

4.3 Modernizing Helipad Data, Infrastructure, and Safety Standards

Background

Many hospital helipads, critical for air ambulance operations, are not listed in the FAA's Airport Data and Information Portal (ADIP) database. This lack of comprehensive data, combined with voluntary heliport design standards and inconsistent oversight, results in safety risks such as airspace conflicts, substandard facilities, and inadequate disaster management capabilities. Additionally, the absence of standardized markings and unclear weight and size limitations further complicates safe operations.

The FAA does not have jurisdiction to enforce certification standards or require reporting of operational capabilities for private facilities, including many hospital heliports. Heliport operators are not required to comply with standards set forth in 14 CFR Part 139, which require certification of takeoff and landing sites. As a result, FAA standards on heliport planning, design, and construction are non-regulatory advisory guidelines that are not enforceable unless a heliport receives federal funding, which most do not.[49,50] This has led to heliports having shortcomings in fire protection, obstacle clearance, approach and departure path clearance, adequate safety areas, lighting, and

[49] Five-Alpha LLC (2019). Deficiencies in U.S. Helicopter Infrastructure Reporting System.
[50] FAA (2023). AC150/5390-2D Heliport Design

markings. Standardizing hospital helipads through FAA and industry collaboration would generate long-term improvements in safety.

A 2019 assessment estimated between 1,600 and 1,800 heliports were not included in the FAA's Airport Master Record, leaving them unseen to other aircraft, which are required to avoid takeoff and landing airspace.[51] In 2023, the FAA introduced the ADIP, improving upon the previous Airport Master Record process. This update will improve the incorporation of data for newer facilities; however, older heliport data still contain errors or missing information. As an example of missing information, many heliport locations do not have location identifiers. This presents an opportunity for industry stakeholders and the FAA to work together to improve the completeness and accuracy of heliport data in the ADIP, improving safety and route planning and reducing delays during critical missions.

Subcommittee Recommendation

Upgrading facilities and improving the accuracy and completeness of the ADIP would improve the safety of helipads and improve information available for pilots to make decisions, according to members of the Flight Safety Subcommittee. This would improve airspace safety and route planning, and reduce delays during critical missions, especially in congested areas with significant low-altitude operations. Additionally, investing in hospital helipad standardization and collaboration between the FAA and industry stakeholders would drive long-term improvements in safety and functionality.

The Flight Safety Subcommittee, focusing on the quality of heliport data and design standards, developed the following recommendation with a goal of improving oversight and diminishing safety risks.

> **Subcommittee Recommendation:** Congress should authorize funding and establish initiatives to modernize and digitize the Aeronautical Data Information Portal (ADIP) in collaboration with the FAA and industry stakeholders. This effort should ensure accurate and comprehensive data on heliports, helipads, and landing zones, including critical information such as weight limits, markings, and Instrument Flight Rules (IFR) compatibility. This effort should prioritize:
>
> - Integrating updated helipad and heliport data into commercially available pilot navigation tools.
> - Establishing competitive grants to upgrade substandard helipads and heliports to meet FAA design standards (e.g., Advisory Circular 150/5390-2D).
> - Including maintenance of hospital helipad data in the ADIP as a Condition of Participation (CoP) to be evaluated by hospital accreditation organizations.
> - Adding IFR-compatible infrastructure to improve safety and reliability, especially in rural and underserved areas (non-terminal areas).

[51] Five-Alpha LLC (2019). Deficiencies in U.S. Helicopter Infrastructure Reporting System

- Incorporating locations with medical services into the United States Notices to Airmen (NOTAM) system.

The Flight Safety Subcommittee highlighted benefits of this recommendation including enhanced air ambulance operations, improved airspace awareness, streamlined processes, stronger collaboration, proactive data maintenance, and enhanced disaster response. Specifically, the Subcommittee noted that:

- Accurate and updated heliport data would improve operational safety and route planning, reduce delays, and support critical medical missions.
- Better oversight of areas near helicopter approach and departure paths, including updates to FAA tools like the "Know Before You Fly" app (B4UFly), would help notify drone operators of potential safety risks and reduce the likelihood of aircraft collisions.
- Simplified submission forms and faster FAA reviews would encourage facilities to update data, keeping the database reliable.
- Improved communication between the FAA, hospitals, and the aviation industry would enhance coordination and problem-solving.
- Mandating updates and raising awareness would ensure facilities maintain accurate and comprehensive information.
- Improved helipad infrastructure and data would improve safety and efficiency in emergency responses to multi-patient incidents and disaster events at regional or national levels.

Committee Discussion and Voting

The Flight Safety Subcommittee clarified that this recommendation is associated with AAQPS Recommendation 9 (see Section 4.2) because this recommendation would ensure complete and accurate information about takeoff and landing areas is available to aircraft operating in the low-altitude network. A Committee member stated that in studies of helipad safety many National Transportation Safety Board (NTSB) reports attribute accidents to pilot error without recognizing that many helipads fail to meet recommended design standards because compliance with these standards is not mandatory.

The Committee voted to adopt AAQPS Recommendation 10, with 11 Committee members in favor, none opposed, and three abstaining.

AAQPS Recommendation 10

Congress should authorize funding and establish initiatives to modernize and digitize the Aeronautical Data Information Portal (ADIP) in collaboration with the Federal Aviation Administration (FAA) and industry stakeholders. This effort should ensure accurate and comprehensive data on heliports, helipads, and landing zones, including critical information such as weight limits, markings, and Instrument Flight Rules (IFR) compatibility. This effort should prioritize:

- Integrating updated helipad and heliport data into commercially available pilot navigation tools.
- Establishing competitive grants to upgrade substandard helipads and heliports to meet FAA design standards (e.g., Advisory Circular 150/5390-2D).
- Including maintenance of hospital helipad data in the ADIP as a Condition of Participation (CoP) to be evaluated by hospital accreditation organizations.
- Adding IFR-compatible infrastructure to improve safety and reliability, especially in rural and underserved areas (non-terminal areas).
- Incorporating locations with medical services into the United States Notices to Airmen (NOTAM) system.

4.4 Enhancing Safety and Technology for Single-pilot Operations

Background

Single-pilot operations dominate U.S. air ambulance services and may be preferred to address challenges related to an aircraft's useful load (total weight carried), costs, and pilot shortages. However, the Flight Safety Subcommittee acknowledged that having only one pilot can increase cockpit workload, especially during adverse weather.[52] Air ambulance operations face significant safety challenges due to high pilot workload in demanding conditions like adverse weather, low visibility, and night flights, which can impact situational awareness and decision-making. The rapid growth of low-altitude aviation, including UAS and AAM vehicles, is increasing airspace congestion, which also increases pilot workload near hospitals and airports, potentially interfering with critical life-saving missions.

Technologies like trim control, Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) can reduce pilot workload. Though most fixed-wing aircraft certified by FAA are designed with such systems, they are less common on rotorcraft.[53] In 2009, the NTSB issued a recommendation to the FAA to require EMS transportation helicopters to be equipped with

[52] Speirs, A.; Ramee, C.; Payan, A.P.; Mavris, D.; Feigh, K. (2021). Impact of Adverse Weather on Helicopter Pilot Decision-Making. https://doi.org/10.2514/6.2021-2771

[53] United States Helicopter Safety Team (2021). Helicopter Safety Enhancement No. 70 Output No. 3

autopilots and to require autopilot training for pilots operating as single pilots.[54] However, this action was closed in 2014 after not being accepted by the FAA due to concerns regarding costs, availability, and weight and space limitations for equipping existing helicopters (79 FR 9958).

Subcommittee Recommendation

The Flight Safety Subcommittee discussed that investments in advanced simulation tools and workload reduction systems would reduce pilot workload and improve situational awareness in complex, high-workload situations, improving safety for crew and patients. By simulating complex scenarios, advanced simulation tools, which may include virtual reality (VR) training, enhance situational awareness and aeronautical decision-making and prepare pilots for real-world challenges. Adopting pilot workload reduction systems (such as SAS or AFCS) would allow pilots to focus attention on situational awareness and decision making. Innovative solutions can also be promoted through the funding to update existing equipment with pilot workload reduction systems and supporting FAA research.

To help reduce air ambulance pilot workload for single-pilot operations, the Subcommittee proposed the following recommendation:

> **Subcommittee Recommendation:** Congress should mandate that new air ambulance helicopters be equipped with Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) and require pilot training on their use. Additionally, Congress should provide funding incentives to retrofit existing helicopters and support FAA research into enhanced vision technologies, workload reduction systems, and advanced simulation tools (including virtual reality), with expedited development through industry collaboration.

There may be cost and regulatory challenges because retrofitting helicopters and implementing new technologies may strain budgets for smaller operators, and expanding VR training authorization may require updates to existing regulations and standards, which could delay widespread adoption. The certification process to incorporate new technologies is neither timely nor efficient and can be cost prohibitive.

Although this recommendation focuses on air ambulance helicopters, the Committee also recommends exploring opportunities to support new technology for fixed-wing air ambulances.

Committee Discussion and Voting

Flight Safety Subcommittee members discussed that training would be an important part of the implementation of this recommendation while clarifying that the focus of the recommendation is on equipping pilots with advanced technology.

The Committee voted to adopt AAQPS Recommendation 11, with 11 Committee members in favor, none opposed, and three abstaining.

[54] 14 CFR Part 135 requires training on the autopilot for aircraft equipped with an autopilot.

AAQPS Recommendation 11

Congress should mandate that new air ambulance helicopters be equipped with Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) and require pilot training on their use. Additionally, Congress should provide funding incentives to retrofit existing helicopters and support Federal Aviation Administration (FAA) research into enhanced vision technologies, workload reduction systems, and advanced simulation tools (including virtual reality), with expedited development through industry collaboration.

Chapter 5: Recommendations on Differences Between Air Ambulance Vehicle Types, Services, and Technologies, and Other Flight Capability Standards, and the Impact of Such Differences on Patient Safety

Section 106(g)(4)(D) of the No Surprises Act directs the AAQPS Committee to study and make recommendations, as appropriate, to Congress regarding differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

In discussions of different flight capability standards and the impact of such differences on patient safety, the Committee made an intentional effort to review and utilize outstanding recommendations from bodies like the NTSB and the FAA's Aviation Rulemaking Advisory Committee (ARAC) Rotorcraft Occupant Protection Working Group (ROPWG). Reviewing these recommendations led the Committee to focus on closing gaps in regulatory safety standards and streamlining certification of emerging technologies. Alignment with proven safety standards under streamlined and consistent certification requirements would modernize the air ambulance industry, reduce the risk of preventable harm during accidents, and maximize life-saving capabilities on-board.

5.1 Mandating Critical Safety Standards for Air Ambulance Occupant Protection

Background

FAA airworthiness regulations (14 CFR Parts 27 and 29) set technical safety standards for rotorcraft, including HAA. These regulations detail requirements for occupant protection, including crash-resistant fuel systems (CRFSs), and seats and restraints to protect occupants in the event of a crash. Standards in these regulations require any rotorcraft issued a Type Certification[55] after 1994

[55] Type certification is the approval of the design of the aircraft and all component parts (including propellers, engines, control stations, etc.). It signifies the design is in compliance with applicable airworthiness, noise, fuel venting, and exhaust emissions standards. Certification | Federal Aviation Administration

feature a CRFS that meets specific requirements for fuel cell drop tests and puncture resistance.[56] The regulations also require installation of occupant seats that pass vertical and horizontal dynamic seat tests,[57] and restraint of occupants and items of mass that could injure occupants in the cabin at the g-levels required for newly certified helicopters.[58] Equipping aircraft to meet these certification requirements would reduce injuries and fatalities for occupants of helicopters.[59] Section 317(a) of the FAA Reauthorization Act of 2018 (49 U.S.C. § 44737) built on the FAA's existing safety regulations, mandating all helicopters produced after April 5, 2020, comply with fuel system safety standards defined in CFR Parts 27 and 29, regardless of the date of Type Certification.

Despite this progress in occupant safety, a regulatory gap still exists, allowing certain helicopters with Type Certificates issued before 1994 and manufactured before 2020 to operate without meeting safety standards outlined in CFR 14 Parts 27 and 29.[60] This gap was addressed by ARAC's ROPWG in 2018. In its final report, the ROPWG acknowledged that many aircraft do not meet current occupant safety standards because they were type-certified prior to implementation of modern requirements. The working group proposed 20 key recommendations to the FAA, among which were proposals that FAA make installation of CRFS and upper torso restraints mandatory in all rotorcraft. These recommendations were marked by the ROPWG as a high priority for the FAA to address.[61]

Allowing air ambulance helicopters to continue operating in the absence of mandatory adherence to updated safety standards heightens the likelihood of preventable injuries and fatalities in the event of an accident.[62] HAA adherence to these safety measures is essential because of the dynamic environments in which HAA operate and because of the need for the public to have confidence in the safety of helicopters operating as air ambulances. In summary, a regulatory gap exists that allows certain helicopters with Type Certificates issued prior to 1994 and manufactured prior to 2020 to operate without meeting current safety and certification standards outlined in CFR 14 Parts 27 and 29. These certification requirements have been proven to reduce injuries and fatalities for occupants of helicopters. Allowing these helicopters to continue to operate in the absence of mandatory adherence to updated safety standards – such as crash-resistant fuel systems, enhanced occupant protection, and structural integrity requirements – heightens the likelihood of preventable injuries and fatalities in the event of an accident.

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[56] 14 CFR 27.952(a)(1)-(6), 14 CFR 27.952(f), 14 CFR 27.963(g), 14 CFR 29.952(a)(1)-(6), 14 CFR 29.952(f), and 14 CFR 29.963(b)

[57] 14 CFR 27.562, 14 CFR 27.785(c) and (g), 14 CFR 29.562, and 14 CFR 29.785(c) and (g)

[58] 14 CFR 27.561 and 14 CFR 29561

[59] National Transportation Safety Board (2015). Crash-Resistant Fuel Systems on Airbus Helicopters

[60] The FAA recommends owners and operators ensure helicopters are compliant with the CRFS standards. The FAA outlined the implementation process for CRFS in FAA Safety Alert for Operators 19006 (SAFO 19006) and a Special Airworthiness Information Bulletin SW-17-31R2. SAFO 19006 recommends that aircraft owners and operators ensure their aircraft are compliant with the CRFS standards when utilizing helicopters certificated with November 2, 1994, and later type designs, that were also manufactured between November 2, 1994 but prior to April 5, 2020.

[61] Rotorcraft Occupant Protection Working Group (2018). Task 6 Final Report Revised 2018-09-27

[62] National Transportation Safety Board (2015). Crash-Resistant Fuel Systems on Airbus Helicopters

Subcommittee Recommendation

The Flight Safety Subcommittee discussed aligning industry practices with established safety benchmarks to ensure better consistency, quality, and safety for air ambulance patients. This recommendation is supported by data demonstrating the effectiveness of technologies like energy-attenuating seats, helmets, and aramid fiber flight suits in improving safety outcomes.[63]

With a goal of ensuring critical safety standards for protection in all rotorcraft air ambulances, the Flight Safety Subcommittee proposed the following recommendation to the Committee:

> **Subcommittee Recommendation:** Congress should mandate the implementation of FAA Rotorcraft Occupant Protection Working Group (ROPWG) Part 135 Aviation Rulemaking Advisory Committee (ARAC) recommendations on helicopter air ambulance occupant protective technologies, including crashworthy fuel systems, crash-resistant seating, and crash-resistant interiors. Legislative action is necessary to ensure industry-wide compliance with proven safety standards, protect passengers and crew from preventable injuries and fatalities, and reduce the human and economic impact of rotorcraft accidents.

Despite its potential to affect safety outcomes, the Subcommittee acknowledged potential challenges associated with its implementation, including:

- Operators may incur costs to upgrade existing aircraft or purchase compliant models. Upgrading aircraft could temporarily disrupt air ambulance services, especially in underserved areas.
- Operators and manufacturers may resist due to cost concerns or perceived regulatory overreach, potentially delaying compliance.
- Enforcing the mandate will require coordination between Congress, the FAA, and stakeholders, potentially leading to lengthy processes and oversight complexity.

Committee Discussion and Voting

The Flight Safety Subcommittee members emphasized the importance of aligning industry practices with proven safety standards to reduce the human and economic toll of rotorcraft accidents. Implementing mandatory standards for protective technologies would enhance survivability during accidents and bolster public confidence in the industry. Furthermore, adherence to established safety standards fosters a safer operational environment while mitigating the financial and societal impacts of preventable injuries and fatalities. The Committee stated that legislative action is necessary to ensure industry-wide compliance with proven safety standards and to reduce the human and economic impact of rotorcraft accidents. The Committee discussed the history of crash-resistant fuel cell regulations, including economic and other analyses. They stated that motivation for action shifts when there is a statutory requirement beyond the thorough evaluations typically conducted during the rulemaking process. While direction from Congress might not remove all barriers, it would facilitate action to improve the safety standpoint.

[63] Rotorcraft Occupant Protection Working Group (2018). Task 6 Final Report Revised 2018-09-27.pdf

The Committee discussed additional cost data that did not exist when the ROPWG analyzed the costs of CRFS and energy attenuating seats. In a 2015 accident in Colorado, a flight nurse sustained burns over 90% of his body and survived, leading to lifetime medical expenses in the tens of millions of dollars, a critical piece of information that should be factored into any future cost-benefit analyses.[64]

The Committee acknowledged the possibility that some rotorcraft may become obsolete because they cannot be upgraded to meet current safety standards. The ARAC ROPWG final report determined that the majority of existing rotorcraft can be cost-effectively upgraded with crash resistant fuel bladders and upper torso restraints. Furthermore, a statutory mandate to upgrade existing aircraft could encourage manufacturers to develop the equipment needed to upgrade aircraft for which upgrades are not currently possible. The Committee emphasized the importance of a Congressional mandate because of Congress's ability to focus on the safety impacts without the distraction of associated economic, environmental, or other analyses.

This recommendation is specific to rotorcraft because it stems from the ARAC ROPWG, which was formed to research rotorcraft safety issues. The working group developed many recommendations, including those pertaining to CRFS and energy attenuating seats. Legislation resulting from the ROPWG's recommendations addressed requirements for newly manufactured helicopters but did not address helicopters already in operation. The Committee noted that a second ROPWG is currently being formed to specifically look at CRFS. The Committee requested updates to clearly state that the recommendation would only apply to rotorcraft, and the Flight Safety Subcommittee proposed a revised version at the July 10 meeting.

The Committee voted to adopt AAQPS Recommendation 12, with 12 Committee members voting in favor, none opposed, and one abstaining.

AAQPS Recommendation 12

Congress should mandate the implementation of the Federal Aviation Administration (FAA) Part 135 Aviation Rulemaking Advisory Committee (ARAC) recommendations on Helicopter Air Ambulance occupant protective technologies, including crashworthy fuel systems as referenced in Safety Alert for Operators (SAFO) 19006. Legislative action is necessary to ensure industry-wide compliance with proven safety standards, and bring all helicopters utilized for air ambulance operations into compliance with Code of Federal Regulations (CFR) 14 Part 27 and 29 in the following areas:

- CFR 27/29.952(a)(1)(2)(3)(5)(6), 27/29.952(f), and 27.963(g)/29.963(b)
- CFR 27/29.562, 27/29.785(c) and (g)
- CFR 27/29.561

[64] Head, E. (2018, July 10). Against all odds: Dave Repsher's helicopter crash survival story. Vertical Magazine

5.2 Streamlining Certification and Expediting Approval Pathways for Air Ambulance Technologies

Background

The complex regulatory system surrounding air ambulance certification often results in costly delays and obstacles to adopting new technologies and equipment. This certification process is governed by stringent airworthiness standards that involve lengthy application procedures. Additionally, the presence of multiple FAA certification offices across the U.S. can lead to inconsistencies in how standards and requirements are interpreted. Current certification requirements restrict the timely adoption of advanced aircraft systems, medical equipment, and safety technologies. Delays in adoption of effective technologies can limit the ability to enhance patient care and improve operational efficiency in emergency medical services.

The 2012 FAA Modernization and Reform Act (Public Law 112-95) sought to streamline and modernize FAA processes, including those related to certification, directing the agency to address regulatory inconsistencies hindering operational improvements.[65] The FAA subsequently established a Consistency of Regulatory Interpretation Aviation Rulemaking Committee (ARC) to advise on certification and approval processes and published a detailed implementation plan to guide its actions in response to the 2012 FAA Modernization Act and the ARC's findings.[66]

The FAA has since made progress in addressing certification. For example, an update to airworthiness standards for normal category airplanes under 14 CFR Part 23 introduced performance-based requirements, which focus on achieving specific safety outcomes rather than prescribing rigid design specifications, allowing for greater flexibility.[67] However, for categories not included in the performance-based requirements, like rotorcraft, and for cutting-edge technologies that do not fit neatly into existing regulatory frameworks, barriers to certification continue.

Subcommittee Recommendation

The Flight Safety Subcommittee discussed how modernizing certification processes is essential to keep pace with rapid advancements in technology and meet the evolving needs of emergency medical services. Streamlined and standardized certification systems would enable faster integration of innovative solutions, ensuring patients benefit from cutting-edge medical equipment and safer aircraft systems. Additionally, reducing barriers to innovation would support operational efficiency, allowing providers to deliver higher-quality care while optimizing resources in critical, time-sensitive situations. Establishing a dedicated liaison team would enhance communication between regulators, operators, and manufacturers, providing clear guidance and simplifying implementation of critical technologies.

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[65] FAA (2015). Aircraft Certification Process and Review ARC Section 312 Implementation Plan

[66] FAA (2012). Recommendations on Improving Consistency of Regulatory Interpretation; FAA (2015). Aircraft Certification Process and Review ARC Section 312 Implementation Plan

[67] Federal Register: Revision of Airworthiness Standards for Normal, Utility, Acrobatic, and Commuter Category Airplanes

To promote more efficient certification processes while maintaining the quality and safety of new products, the Flight Safety Subcommittee proposed the following recommendation:

> **Subcommittee Recommendation:** Congress should mandate that the FAA develop performance-based standards and establish standardized policies and procedures, across all offices, to streamline the certification process for advanced aircraft systems and medical equipment. Congress should also mandate the development of expedited approval pathways for technologies critical to patient care and operational safety, ensuring timely certification of innovations that enhance emergency medical services to include a dedicated liaison team within the FAA Aircraft Certification Branch to improve communication with operators and manufacturers, expedite approvals, and provide regulatory guidance.

Members of the Flight Safety Subcommittee noted that this recommendation impacts both fixed-wing and helicopter air ambulances. The goal is to achieve regulatory alignment and optimize certification without reducing quality or safety. However, some challenges to adopting this recommendation are the need to balance expedited approvals with rigorous safety assessments. Establishing expedited pathways, a dedicated liaison team, reviewing existing regulations, and transitioning to performance-based measures for rotorcraft may require significant funding and staffing, straining FAA resources and requiring time.

Committee Discussion and Voting

A member of the Committee shared an example of a critical, time-sensitive situation involving the increased need for oxygen at the height of the COVID-19 pandemic. In this example, an air ambulance operator opted to obtain a supplemental type certificate to get liquid oxygen aboard a fixed-wing aircraft, which was necessary due to increased oxygen use. The operator waited for one year to get FAA approval for this supplemental type certificate, during which time the aircraft was unable to serve patients, underscoring the importance of expedited certification to patient safety.

The Committee voted to adopt AAQPS Recommendation 13, with 13 Committee members voting in favor, none opposed, and 1 abstaining.

AAQPS Recommendation 13

Congress should mandate that the Federal Aviation Administration (FAA) develop performance-based standards and establish standardized policies and procedures, across all offices, to streamline the certification process for advanced aircraft systems and medical equipment. Congress should also mandate the development of expedited approval pathways for technologies critical to patient care and operational safety, ensuring timely certification of innovations that enhance emergency medical services to include a dedicated liaison team within the FAA Aircraft Certification Service to improve communication with operators and manufacturers, expedite approvals, and provide regulatory guidance.

Future Considerations

Over the course of developing recommendations in response to the statutory requirements for this report, the Committee spoke at length about the impact of the ADA on clinical care. The ADA preempts state authority to regulate anything that impacts "routes, prices, or services" for an air carrier, including air ambulance operators. Because the clinical components of air ambulance, including clinical licensure and standards, are largely regulated by states, there is some ambiguity regarding which clinical aspects of air ambulance services are subject to state regulation and which may be preempted by the ADA. Such authorities are commonly used by states to regulate healthcare providers and establish and enforce clinical standards for patient safety. While recognizing the importance of regulations around clinical standards to ensure safe and appropriate care, Committee members also referenced the complexity of operating a business that often crosses state lines, which can require complying with a patchwork of state requirements for a single transport.

In its 2022 report, the AAPB Committee offered a number of recommendations around the ADA and how it might be modified to address these challenges. As Congress has not acted on the AAPB recommendations concerning ADA preemption, the Clinical Standards Subcommittee discussed at length whether to bring forward a recommendation to address this ambiguity, either through FAA guidance or Congressional action. The Subcommittee discussed the merits of whether such a recommendation could provide clarity on the respective regulatory authorities of state vs. federal governments to ensure clear and appropriate oversight over healthcare services. Upon further reflection with Subcommittee members and the AAQPS Committee Chair, the Subcommittee decided not to put that recommendation forward to the full Committee.

Proponents of further exploring the ADA's impact on clinical care expressed concerns that the ADA has had a significant effect on the industry, particularly on pricing, operational growth, costs, and aviation safety in HAA. Further, they flagged gaps in state-level oversight due to ADA preemption that may result in conflicting clinical standards and insurance disputes. One illustrative example pertained to the need for appropriate temperature controls during medical transports and whether this would be considered a clinical standard subject to state regulation, or an aviation standard subject to federal regulation. Opponents of further clarification of the ADA expressed concerns about unintended consequences, such as increased regulatory complexity, state-by-state variability, and potential disruptions to interstate air ambulance operations.

Debate emerged over whether the recommendation to evaluate the ADA was within the Committee's scope. While some members believed it to be relevant to the Committee's charge, others felt it ventured into broader federal versus state regulatory issues. Procedural limitations and time constraints prevented the recommendation from being sent back to the Subcommittee for further refinement, but the Committee agreed that this is an important area for future research.

Appendix A: Applicable Text of the No Surprises Act (H.R. 133, P.L. 116-260)

The Advisory Committee is mandated by section 106(g) of the No Surprises Act, which was enacted in div. BB, tit. I of the Consolidated Appropriations Act, 2021, P.L. 116-260 (Dec. 27, 2020). The Advisory Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

Sec. 106. Reporting requirements regarding air ambulance services.

Within 60 days of enactment, the HHS Secretary and the Secretary of Transportation are required to establish an Advisory Committee on Air Ambulance Quality and Patient Safety for the purpose of reviewing options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The committee is required to hold its first meeting within 90 days of enactment and submit a report to Congress within 180 days of the first meeting. (New PHSA sec. 2799A-8).

(g) ADVISORY COMMITTEE ON AIR AMBULANCE QUALITY AND PATIENT SAFETY—

(1) ESTABLISHMENT—Not later than the date that is 60 days after the date of the enactment of this Act, the Secretary of Health and Human Services and the Secretary of Transportation, shall establish an Advisory Committee on Air Ambulance Quality and Patient Safety (referred to in this subsection as the "Committee'') for the purpose of reviewing options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances.

(2) MEMBERSHIP—The Committee shall be composed of the following members:

(A) The Secretary of Health and Human Services, or a designee of the Secretary, who shall serve as the Chair of the Committee.

(B) The Secretary of Transportation, or a designee of the Secretary.

(C) One representative, to be appointed by the Secretary of Health and Human Services, of each of the following:

(i) State health insurance regulators.

(ii) Healthcare providers.

(iii) Group health plans and health insurance issuers offering group or individual health insurance coverage.

(iv) Patient advocacy groups.

(v) Accrediting bodies with experience in quality measures.

(D) Three representatives of the air ambulance industry, to be appointed by the Secretary of Transportation.

(E) Additional three representatives not covered under subparagraphs (A) through (D), as determined necessary and appropriate by the Secretary of Health and Human Services and Secretary of Transportation.

(3) FIRST MEETING—Not later than the date that is 90 days after the date of the enactment of this Act, the Committee shall hold its first meeting.

(4) DUTIES—The Committee shall study and make recommendations, as appropriate, to Congress regarding each of the following with respect to air ambulance services:

H. R. 133—1677

(A) Qualifications of different clinical capability levels and tiering of such levels.

(B) Patient safety and quality standards.

(C) Options for improving service reliability during poor weather, night conditions, or other adverse conditions.

(D) Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

(E) Clinical triage criteria for air ambulances.

(5) REPORT—Not later than the date that is 180 days after the date of the first meeting of the Committee, the Committee, in consultation with relevant experts and stakeholders, as appropriate, shall develop and make publicly available a report on any recommendations submitted to Congress under paragraph (4). The Committee may update such report, as determined appropriate by the Committee.

(h) DEFINITIONS—In this section, the terms “group health plan’’, “health insurance coverage’’, “individual health insurance coverage’’, “group health insurance coverage’’, and “health insurance issuer’’ have the meanings given such terms in section 2791 of the Public Health Service Act (42 U.S.C. 300gg–91).

Appendix B: AAQPS Advisory Committee Charter

CHARTER

ADVISORY COMMITTEE ON AIR AMBBULANCE QUALITY AND PATIENT SAFETY

COMMITTEE'S OFFICIAL DESIGNATION

Advisory Committee on Air Ambulance Quality and Patient Safety

AUTHORITY

The Advisory Committee on Air Ambulance Quality and Patient Safety (the Committee) is mandated by section 106(g) of the No Surprises Act, which was enacted in div. BB, tit. I of the Consolidated Appropriations Act, 2021, P.L. 116-260 (Dec. 27, 2020). The Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

OBJECTIVES AND SCOPE OF ACTIVITIES

The Committee will make recommendations to the Secretary of Health and Health and Human Services and the Secretary of Transportation (the Secretaries) on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The Committee, in consultation with relevant experts and stakeholders, as appropriate, shall develop and make publicly available a report on any recommendations submitted to Congress. The report must be developed and made publicly available no later than 180 days after the date of the Committee's first meeting.

DESCRIPTION OF DUTIES

The Committee shall study and make recommendations, as appropriate, to Congress regarding each of the following with respect to air ambulance services:

(a) Qualifications of different clinical capability levels and tiering of such levels.

(b) Patient safety and quality standards.

(c) Options for improving service reliability during poor weather, night conditions, or other adverse conditions.

(d) Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

(e) Clinical triage criteria for air ambulances.

AGENCY OR OFFICIAL TO WHOM THE COMMITTEE REPORTS

The Committee advises the Secretaries.

SUPPORT

Management and support services for the Committee will be provided by the Department of Health and Human Services, Centers for Medicare & Medicaid Services' Center for Clinical Standards and Quality.

ESTIMATED ANNUAL OPERATING COSTS AND STAFF YEARS

The estimated operating cost per fiscal year is $1.4 million and includes contractor administration and operation support; and the associated portion of staffing cost for one full-time equivalent (FTE).

DESIGNATED FEDERAL OFFICER

The Center for Clinical Standards and Quality will select a full-time or permanent part-time federal employee to serve as the Designated Federal Officer (DFO) to attend each Committee meeting and ensure that all policies and procedures comply with applicable statutory and regulatory requirements, including those under FACA. The DFO will approve and prepare all meeting agendas, call all the Committee and subcommittee meetings, adjourn any meeting when the DFO determines adjournment to be in the public interest, and chair meetings when directed to do so by the official to whom the Committee reports. The DFO will be present at all meetings of the Committee and any subcommittees. In the event the DFO cannot fulfill the assigned duties of the committee, one or more full-time or permanent part-time employees will be assigned as DFO and carry out these duties on a temporary basis.

ESTIMATED NUMBER AND FREQUENCY OF MEETINGS

The Committee will meet at least twice or as such intervals as are necessary to carry out its duties. The Committee Chair shall facilitate meetings and the DFO shall be present at all meetings. Meetings are open to the public, except as determined otherwise by the Secretary of Health and Human Services, or a designee of the Secretary. HHS will publish a notice of the agenda, date, time, location, and purpose of the meeting in the Federal Register at least 15 calendar days prior to the date of the meeting as well as publish meeting notices on the Department of Health and Human Services' website.

In order to conduct the business of the Committee, a quorum is required. A quorum exists when a majority of currently appointed members is present at Committee or subcommittee meetings.

DURATION

In accordance with section 106(g) of the No Surprises Act, enacted as part of the Consolidated Appropriations Act, 2021, div. BB, tit. I, P.L. 116-260 (Dec. 27, 2020), the Committee shall remain in existence from the time of its convention until it develops and makes publicly available a report on any recommendations it submitted to Congress.

TERMINATION

Unless renewed by appropriate action prior to expiration, the charter for the Advisory Committee on Air Ambulance Quality and Patient Safety will expire two years from the date it is filed.

MEMBERSHIP AND DESIGNATION

The Committee shall be comprised of not more than 13 members. Federal members will be appointed to serve as Regular Government Employees and public members will serve as Special Government Employees. Representative members will also be appointed to serve on the Committee.

- the Secretary of Health and Human Services, or the Secretary's designee, who shall serve as Chair of the Committee;
- the Secretary of Transportation, or the Secretary's designee
- One representative, to be appointed by the Secretary of Health and Human Services, of each of the following:
    - State insurance regulators;
    - Health care providers;
    - Group health plans and health insurance issuers offering coverage group or individual health insurance coverage;
    - Patient advocacy groups;
    - Accrediting bodies with experience in quality measures.
- Three representatives of the air ambulance industry, to be appointed by the Secretary of Transportation.
- Additional three representatives not covered under the above four sections, as determined necessary and appropriate by the Secretary of Health and Human Services and the Secretary of Transportation.

SUBCOMMITTEES

The DFO may establish subcommittees composed of members and nonmembers of the Committee to perform specific assignments. Subcommittees shall not work independently of the chartered Committee and shall report all of their recommendations and advice to the Committee for deliberation and discussion. Subcommittees must not provide advice or work products directly to the Departments or any Federal agency.

RECORDKEEPING

The records of the Committee on Air Ambulance Quality and Patient Safety shall be managed in accordance with applicable provisions of General Records Schedule 6.2, Federal Advisory Committee Records, or other approved agency records disposition schedules. These records will be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. 552.

FILING DATE

August 22, 2023

Appendix C: AAQPS Advisory Committee Tasking Notice

Advisory Committee on Air Ambulance Quality and Patient Safety Task Notice

ACTION: Notice of a new task assignment for the Advisory Committee on Air Ambulance Quality and Patient Safety (AAQPS).

SUMMARY: The Department of Health and Human Services (HHS) in coordination with the Department of Transportation (DOT) proposes a new AAQPS task to make recommendations in response to "The No Surprises Act" (Section 106(g)), as part of the Consolidated Appropriations Act, 2021, Public Law (Pub L.), 116-260.

This notice informs the public of the new AAQPS tasking and subcommittee activities.

BACKGROUND: Congress directed HHS and DOT to establish the AAQPS to provide recommendations to the Secretary of Health and Human Services and the Secretary of Transportation on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. AAQPS is governed by the provisions of the Federal Advisory Committee Act (FACA), as amended, Pub. L. 92-463, 5 United States (US) Code, Ch. 10.

The Committee, in consultation with relevant experts and stakeholders, as appropriate, shall develop and make publicly available a report on any recommendations submitted to Congress. The report must be developed and made publicly available no later than 180 days after the date of the Committee's first meeting.

On December 12, 2024, DOT and HHS assigned to AAQPS, the task to make recommendations regarding options for establishing qualifications of different clinical capability levels and tiering of such levels, patient safety and quality standards, and clinical triage criteria for air ambulances. AAQPS delegated this task to the Clinical Standards Subcommittee. Center for Clinical Standards and Quality (CCSQ) will serve as the Federal government representative to support the Clinical Standards Subcommittee.

THE TASK: The Clinical Standards Subcommittee will provide advice and recommendations pertaining to the most effective way to resolve statutory, regulatory, and guidance gaps for air ambulance clinical standards and quality. The subcommittee will review any relevant materials to assist in achieving their objective.

The subcommittee is tasked with:

1. Identifying any potential statutory, regulatory, guidance, and clinical standards gaps that are applicable to air ambulance clinical standards and quality.
2. Providing recommendations addressing the following but not limited to:
    a. Qualifications for different clinical capability levels and tiering of such levels. This may include considerations related to specialty care verses critical care, regional certification requirements and cross state regulatory rules, specialty certification requirements, and scope of care and crew composition.

b. Patient safety and quality standards. This may include, but is not limited to, considerations related to infection prevention and control, communication and coordination with receiving medical facilities, standards of clinical care in the field, outcomes of care and accountability, and readiness capabilities.

c. Clinical triage criteria for air ambulances. This may include considerations related to the triaging systems currently available and used, overtriaging and undertriaging, and triage standardization.

3. Develop a summary containing recommendations on the findings and results of the tasks explained above.

    a. The preliminary recommendations summary should document both majority and dissenting positions on the findings and the rationale for each position.

    b. Any disagreements should be documented, including the rationale for each position and the reasons for the disagreement.

4. The AAQPS may task the Clinical Standards Subcommittee with additional tasks.

5. The subcommittee may be reinstated to respond to the AAQPS's questions or concerns after the preliminary recommendations have been submitted.

SCHEDULE: The recommendation summary is due May 8, 2024.

SUBCOMMITTEE ACTIVITY: The subcommittee must comply with the procedures adopted by the AAQPS and as follows:

1. Conduct a review and analysis of the assigned tasks and any other related materials or documents.

2. Provide a status report at each AAQPS meeting.

3. Draft and submit recommendation report based on the review and analysis of the assigned tasks.

4. Present the recommendation report at the AAQPS meeting.

PARTICIPATION IN THE SUBCOMMITTEE: CCSQ selected members of the Clinical Standards Subcommittee with consideration for achieving balanced membership that ensures diversity of perspectives for tasking and recommendations being considered and deliberated by the Committee. The subcommittee will solicit and collect stakeholder feedback, provide advice and recommendations on the assigned task, and review and approve submission of their recommendations to the AAQPS for its consideration. The subcommittee may invite subject matter experts to participate in the proceedings and assist the subcommittee's work.

The provisions of the guidance from the Office of Management and Budget, dated August 13, 2014, "Revised Guidance on Appointment of Lobbyists to Federal Advisory Committees, Boards, and Commissions" (79 FR 47482), continues the ban on registered lobbyists participating on agency boards and commissions if participating in their "individual capacity." The revised guidance now allows registered lobbyists to participate on agency boards and commissions in a "representative

capacity" for the "express purpose of providing a committee with the views of a nongovernmental entity, a recognizable group of persons or nongovernmental entities (an industry, sector, labor unions, or environmental groups, etc.) or state or local government." (For further information see Lobbying Disclosure Act of 1995 (LDA) as amended, 2 U.S.C 1603, 1604, and 1605).

The subcommittee shall not work independently of the chartered Committee and shall report all recommendations and advice to the AAQPS for deliberation and discussion.

Roles and Responsibilities

Members of the subcommittee, assigned to this new tasking should actively participate by attending all meetings, and providing written comments when requested. Members should devote the resources necessary to support the subcommittee in meetings and assigned deadlines. Subcommittee members should also keep their organization and the industry segment they may represent advised of subcommittee activities and decisions to ensure the proposed technical solutions do not conflict with the position of those they represent. Once the subcommittee has begun deliberations, members will not be added or substituted without the approval of the subcommittee chair, CCSQ, and the AAQPS Designated Federal Officer.

Confidential Information

All final work products submitted to the AAQPS are public documents. Therefore, those final work products should not contain any nonpublic proprietary, privileged, business, commercial, and other sensitive information (collectively, Confidential Information) that the subcommittee members would not want to be publicly available. With respect to the subcommittee, there may be instances where members will share Commercial Information within the subcommittee for purposes of completing an assigned tasked. Members must not disclose to any third party or use for any purposes other than the assigned task, any and all Confidential Information disclosed to one party by the other party, without the prior written consent of the party whose Confidential information is being disclosed. All parties must treat the Confidential Information of the disclosing party as it would treat its own Confidential Information, but in no event shall it use less than a reasonable degree of care. If any Confidential Information is shared with US government officials it must be properly marked in accordance with relevant agency policy.

The AAQPS meetings are open to the public. However, subcommittee meetings are not open to the public, except to the extent individuals with an interest and expertise are selected to participate.

FOR FURTHER INFORMATION CONTACT: For further information, contact Ashley Spence, Centers for Medicare & Medicaid Services at (410) 786–2000 or by email at AAQPS@cms.hhs.gov.

Appendix D: AAQPS Advisory Committee Members

Jeff Richey – HHS Secretary's Designee/Representative

Robert Reckert – DoT Secretary's Designee/Representative

Ben Clayton – DoT Representative

Colonel Steven L. Coffee – Patient Advocate

Dr. Jordan Pritzker – Group Health Plans and Health Insurance Issuers

Dr. Mark Gamber – HHS Representative

Dr. William Hinckley – Healthcare Provider

Eileen Frazer – Accrediting bodies

Grace Arnold – State Insurance Regulator

Jason Clark – HHS Representative

Jason Quisling – DoT Representative

Jim Houser – DoT Representative

Paul Julander – DoT Representative

Thomas Judge – DoT Representative

Appendix E: AAQPS Advisory Committee Voting Record by Committee Member

The tables in this appendix list the AAQPS Advisory Committee voting record by Committee member.

Table E.1. Recommendations on Qualifications of Clinical Capability Levels and Tiering of Such Levels

Committee Member	Recommendation 1	Recommendation 2	Recommendation 3	Motion to Strike Compulsory Accreditation Recommendation
Com. Grace Arnold	Yes	Yes	Abstain	Yes
Jason Clark	Yes	Yes	Yes	Yes
Ben Clayton	Yes	Yes	Abstain	Yes
Col. Steven Coffee	Yes	Abstain	Yes	Yes
Eileen Frazer	Yes	Yes	Yes	Yes
Dr. Mark Gamber	Yes	Yes	Yes	Yes
Dr. William Hinckley	Yes	Yes	Yes	No
Jim Houser	Yes	Yes	Yes	Abstain
Thomas Judge	Yes	Yes	Yes	Yes
Paul Julander	Not present	Not present	No	Not Present
Dr. Jordan Pritzker	Yes	Yes	Yes	Yes
Jason Quisling	Yes	Yes	No	Yes
Robert Reckert	Abstain	Abstain	Abstain	Abstain
Jeff Richey	Yes	Yes	Yes	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 1** **Not Present: 1**	**Yes: 11** **No: 0** **Abstain: 2** **Not Present: 1**	**Yes: 9** **No: 2** **Abstain: 3** **Not Present: 0**	**Yes: 10** **No: 1** **Abstain: 2** **Not Present: 1**

Table E.2. Recommendations on Patient Safety and Quality Standards

Committee Member	Recommendation 4	Recommendation 5	Recommendation 6
Com. Grace Arnold	Yes	Abstain	Abstain
Jason Clark	Yes	Yes	Yes
Ben Clayton	Yes	Yes	Yes
Col. Steven Coffee	Yes	Yes	Yes
Eileen Frazer	Yes	Yes	Yes
Dr. Mark Gamber	Yes	Yes	Yes
Dr. William Hinckley	Yes	Yes	Yes
Jim Houser	Yes	Yes	Yes
Thomas Judge	Yes	Yes	Yes
Paul Julander	Yes	Yes	Yes
Dr. Jordan Pritzker	Yes	Yes	Yes
Jason Quisling	Yes	Yes	Yes
Robert Reckert	Yes	Yes	Abstain
Jeff Richey	Yes	Yes	Yes
Vote Count	**Yes: 14** **No: 0** **Abstain: 0** **Not Present: 0**	**Yes: 13** **No: 0** **Abstain: 1** **Not Present: 0**	**Yes: 12** **No: 0** **Abstain: 2** **Not Present: 0**

Table E.3. Recommendation on Clinical Triage Criteria for Air Ambulances

Committee Member	Recommendation 7
Com. Grace Arnold	Yes
Jason Clark	Abstain
Ben Clayton	Yes
Col. Steven Coffee	Yes
Eileen Frazer	Yes
Dr. Mark Gamber	Abstain
Dr. William Hinckley	Yes
Jim Houser	Yes
Thomas Judge	Yes
Paul Julander	Not present
Dr. Jordan Pritzker	Yes
Jason Quisling	Yes
Robert Reckert	Abstain
Jeff Richey	Yes
Vote Count	**Yes: 10** **No: 0** **Abstain: 3** **Not Present: 1**

Table E.4. Recommendations on Options for Improving Service Reliability During Poor Weather, Night Conditions, or Other Adverse Conditions

Committee Member	Recommendation 8	Recommendation 9	Recommendation 10	Recommendation 11
Com. Grace Arnold	Abstain	Yes	Abstain	Yes
Jason Clark	Yes	Yes	Yes	Yes
Ben Clayton	Yes	Yes	Yes	Yes
Col. Steven Coffee	Yes	Abstain	Abstain	Abstain
Eileen Frazer	Yes	Yes	Yes	Yes
Dr. Mark Gamber	Yes	Yes	Yes	Yes
Dr. William Hinckley	Yes	Yes	Yes	Abstain
Jim Houser	Yes	Yes	Yes	Yes
Thomas Judge	Yes	Yes	Yes	Yes
Paul Julander	Yes	Yes	Yes	Yes
Dr. Jordan Pritzker	Yes	Yes	Yes	Yes
Jason Quisling	Yes	Yes	Yes	Yes
Robert Reckert	Abstain	Abstain	Abstain	Abstain
Jeff Richey	Yes	Yes	Yes	Yes
Vote Count	**Yes: 12 No: 0 Abstain: 2 Not Present: 0**	**Yes: 12 No: 0 Abstain: 2 Not Present: 0**	**Yes: 11 No: 0 Abstain: 3 Not Present: 0**	**Yes: 11 No: 0 Abstain: 3 Not Present: 0**

Table E.5. Recommendations on Differences Between Air Ambulance Vehicle Types, Services, and Technologies, and Other Flight Capability Standards, and the Impact of Such Differences on Patient Safety

Committee Member	Recommendation 12	Recommendation 13
Com. Grace Arnold	Yes	Yes
Jason Clark	Yes	Yes
Ben Clayton	Yes	Yes
Col. Steven Coffee	Yes	Yes
Eileen Frazer	Yes	Yes
Dr. Mark Gamber	Yes	Yes
Dr. William Hinckley	Yes	Yes
Jim Houser	Yes	Yes

Committee Member	Recommendation 12	Recommendation 13
Thomas Judge	Yes	Yes
Paul Julander	Not Present	Yes
Dr. Jordan Pritzker	Yes	Yes
Jason Quisling	Yes	Yes
Robert Reckert	Abstain	Abstain
Jeff Richey	Yes	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 1** **Not Present: 1**	**Yes: 13** **No: 0** **Abstain: 1** **Not Present: 0**

Appendix F: AAQPS Advisory Committee Public Meeting Summaries

Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee Public Meeting #1 – Meeting Summary December 12, 2024

The Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee met virtually via Zoom.gov on December 12, 2024. The attached appendix identifies the AAQPS Advisory Committee members, agency employees, and others who attended the meeting. In accordance with the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2, the meeting was open to the public. The transcript and slides of the meeting are available at: AAQPS Advisory Committee

The meeting covered several topics: (1) an overview of the air ambulance industry; (2) an overview of the regulatory environment; (3) flight safety data and best practices; (4) the clinical quality environment; and (5) the statutorily required discussion topics for flight safety and clinical standards. Meeting sessions included presentations and opportunities for discussion. The presentation materials are available for public review and comment at AAQPS Advisory Committee. The agenda for the meeting and a list of the AAQPS Advisory Committee members are attached to this summary as an appendix.

Introduction and Background

Welcome

David Wright, Center for Clinical Standards and Quality (CCSQ), Designated Federal Officer

The AAQPS Advisory Committee (Committee) meeting began at 10:00 AM EST on December 12, 2024. Mr. David Wright, the Designated Federal Officer, gave welcoming remarks and shared meeting logistics. Mr. Wright stated that Committee members may participate in any discussions and vote on any matters put to a vote by the Committee Chair. Mr. Wright also stated that the meeting is open to the public and that members of the public may address the Committee with permission from its Chair or submit written material to the Committee at any time.

Introduction of AAQPS Committee Members

Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Jeff Richey introduced himself as the Chair of the Committee and asked members of the Committee to introduce themselves. Members of the Committee offered brief introductions.

Overview of the AAQPS

Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Richey reviewed the tasks assigned to the Committee by the No Suprises Act and stated that the Committee's purpose is to review options to improve quality, patient safety, and clinical

capability standards for each clinical capability of air ambulances. Mr. Richey noted that the Committee's intended outcome is to define innovative approaches to improve quality, accessibility, affordability, and sustainability of air ambulance services for safe, quality healthcare.

Mr. Richey also provided an overview of the Flight Safety Subcommittee and the Clinical Standards Subcommittee, both of which will provide recommendations to the Committee. The Clinical Standards Subcommittee will cover three topics: (1) qualifications of different clinical capability levels and tiering of such levels, (2) patient safety and quality standards, and (3) clinical triage criteria for air ambulances. The Flight Safety Subcommittee will cover two topics: (1) options for improving service reliability during poor weather, night conditions, and other adverse conditions and (2) differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety. Clinical Standards Subcommittee members were selected from those who applied to the Committee. Flight Safety Subcommittee members were selected from DOT appointees on the Committee.

Mr. Richey noted that the Committee will aim to come to consensus on recommendations. If the Committee is unable to reach consensus or time does not allow, the Committee will vote on recommendations. Mr. Richey described the meeting schedule for both the Committee and the two Subcommittees and noted that, at the final Committee meeting on May 8, 2025, the Committee will vote and finalize recommendations for a Report to Congress.

Overview of the Air Ambulance Industry

Jana Williams, Association of Air Medical Services (AAMS)

Jason Quisling, Air Methods, Air Medical Operators Association (AMOA)

Ms. Jana Williams and Mr. Jason Quisling provided the Committee with an overview of the air ambulance industry including the types of services, vehicles, and staffing models utilized. They also noted that, today, 86% of U.S. residents in rural areas live within twenty minutes of an air medical asset. Ms. Williams and Mr. Quisling explained that the air ambulance industry operates within a complex regulatory environment governed by both federal and state requirements. The Federal Aviation Administration (FAA) is responsible for the regulation of aircraft, maintenance, pilot certification, and flight standards, while state and regional authorities are responsible for medical personnel, equipment standards, and licensing. Other federal agencies, including the Department of Transportation (DOT), the Occupational Safety and Health Administration (OSHA), and the Department of Defense (DOD), control medications, licensure, and additional personnel safety requirements. In addition, many providers and industry groups voluntarily engage in safety programs, investing significant resources into developing and utilizing new technologies and safety measures that often exceed FAA requirements. Air ambulances serve as a crucial safety net, particularly in rural areas, but require significant logistical, infrastructure, and environmental considerations when operating.

Patient Perspective

Josh Cools, Association of Critical Care Transport (ACCT), Memorial Hermann Life Flight

Mr. Josh Cools emphasized the importance of patient advocacy and safety in critical care transport, particularly in air ambulances. Mr. Cools explained that ACCT's mission is to be the voice for critically ill and injured patients, advocating for consistent standards and accountability across the critical care transport industry. Mr. Cools outlined ACCT's recommendations for improving service reliability, clinical capability levels, and patient safety standards. He also presented data on air medical accidents, sharing that between 2000 and 2020 there were 87 air ambulance accidents and 239 fatalities, and that human factors were the major contributing factor to fatal accidents. Mr. Cools also discussed the challenges of aligning reimbursement with quality care, stressing the need for investments in aviation safety beyond FAA minimums. Mr. Cools highlighted ACCT's development of critical care standards; they updated their third version in 2022. He emphasized the importance of standardized levels of service capabilities and tiers and discussed the challenges of doing so. He summarized the impact of the No Surprises Act in establishing a platform for reasonable reimbursement and promoting high-quality, safe air transport services. Mr. Cools also highlighted the importance of separating specialty care as a service tier unique from routine Advanced Life Support (ALS) or critical care. In conclusion, Mr. Cools reiterated ACCT's commitment to defining a tiered transport reimbursement structure aligned with vehicle capabilities, clinical scope, and staff training.

Committee Discussion

AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion around the state of the air ambulance industry. The discussion occurred both verbally and via the Zoom chat function. Overall, Committee members focused on the complexity and variability of needs across different regions. Different geographic areas require different levels of care, as noted by Mr. Cools and others. The Committee discussed the tiering model and highlighted the challenges of linking tiering to reimbursement, as costs and service levels vary by region. The Committee also acknowledged the need for specialty care, such as pediatric services, to be addressed in a tiered model.

Mr. Cools noted that, as the population of an area decreases, it becomes challenging to provide industry-standard levels of care. He suggested that changes to the current reimbursement model would be needed to prevent this care from becoming cost prohibitive. However, Mr. Ben Clayton pointed out that Life Flight Network provides the same, standardized, levels of care across all their bases in five states across 500,000 square miles. Mr. Jim Houser discussed the importance of considering both cost and equity as the Committee deliberates on how appropriate services can be provided to all regions.

Mr. Cools explained that existing metrics, such as those from Ground Air Medical Quality Transport (GAMUT) or the Commission on Accreditation of Medical Transport Systems (CAMTS), are used for oversight, but the Committee will need to provide additional recommendations on ensuring quality of care. Mr. Cools also noted that the Committee will need to further discuss reimbursement. Mr. Cools noted that ACCT's initial focus was on establishing tiered quality expectations, but the Committee will need to determine the role reimbursement might play in tiering as well. Mr. Richey stated that the Subcommittees will play a role in answering this question. Dr. William Hinckley expressed concern over basing reimbursement on quality metrics as that might disincentivize the reporting of and learning from medical errors that is essential for improving patient safety.

Mr. Quisling said the lack of FAA regulation of helicopter infrastructure creates challenges. He noted that future Committee and Subcommittee discussions should focus on potential upgrades to the current infrastructure. He also noted the potential for industry use of safety management systems to manage operational risk in uncontrolled or unprepared locations.

Other members of the Committee noted the financial difficulties faced by air ambulance services, including charity care losses and reimbursement challenges, particularly in very rural areas.

Overall, the Committee recognized the need for a nuanced approach to air ambulance services, balancing quality, cost, and access while ensuring robust oversight and equitable service delivery.

Regulatory Environment

Federal Aviation Regulations for Air Ambulance Operations

Nolan Crawford, FAA

Mr. Nolan Crawford focused on the regulatory framework governing air ambulance operations, emphasizing the importance of operational safety for both crews and patients. Mr. Crawford explained the history of air ambulances and described the FAA's role in ensuring safety through regulations, orders, and advisory circulars.

Mr. Crawford provided definitions for air ambulance aircraft, operations, and medical crew members as used in the FAA's regulatory structure. He noted that 70% of air ambulance operations in the U.S. use rotorcraft, primarily used for short-distance, hospital-to-hospital transport, and 30% use fixed-wing aircraft for longer distances. The fixed-wing aircraft are normally multi-use aircraft used for more than air ambulance services. Mr. Crawford described the FAA's regulatory structure, including specific rules under Part 135 for air ambulances. Mr. Crawford emphasized the importance of regulations in enhancing safety, citing the 2014 rule that increased weather minimums for helicopters following a rise in fatalities. Mr. Crawford also discussed the FAA's guidance materials, such as orders, advisory circulars, Information for Operators (InFOs), and Safety Alerts for Operators (SAFOs), which provide information, best practices, and compliance methods for the aviation community. He highlighted the FAA's commitment to operational safety through various tools and procedures, including heliport design guides and safety alerts. In closing, Mr. Crawford shared statistics on air ambulance operations, noting that, in 2023, approximately 528,000 flight hours were logged, transporting about 385,000 patients. He underscored the significance of getting safety regulations right and encouraged collaboration with industry partners like the Air Medical Operators Association (AMOA) and the U.S. Helicopter Safety Team (USHST) to further enhance safety in air ambulance operations.

State Emergency Medical Service Perspective

Joseph House, National Association of State EMS Officials (NASEMSO), Kansas State Emergency Medical Service (EMS) Office

Mr. Joseph House highlighted the critical role of EMS offices in regulating and overseeing EMS systems across the U.S. Mr. House emphasized the importance of air ambulances as essential components of EMS systems, particularly in areas where they are the only means of delivering

timely care. He acknowledged the challenges faced by the Committee in developing recommendations for clinical capability levels, tiering, and triage criteria for air ambulances, stressing the need for patient-centric regulatory functions. Mr. House pointed out that current ground ambulance service models could be adopted by the air ambulance industry. He offered six key suggestions for the Committee's consideration:

1. Maintain flexibility
2. Create a critical care tier distinct from specialty care
3. Balance quality and resources to avoid unintended consequences
4. Encourage or mandate linkage between patient outcomes databases and the National EMS Information System (NEMSIS)
5. Strive for objective clinical triage criteria to ensure consistency and eliminate subjectivity
6. Embrace good over perfect and improve based on ongoing review

Mr. House expressed NASEMSO's readiness to support the Committee's efforts and offered to assist in developing patient-centric, evidence-based recommendations.

Current State of Quality and Patient Safety

Ron Kline, MD, Centers for Medicare & Medicaid Services (CMS)

Dr. Ron Kline provided an overview of how and why CMS measures quality of care and discussed the role of metrics in improving performance. Dr. Kline described CMS's existing quality levers including conditions of participation, the Quality Improvement Organization network, value-based programs, CMS's measure development and implementation process, and the shift towards digital outcome and patient-reported measures. He highlighted the importance of public reporting (e.g., the Care Compare site) in driving provider improvement. Dr. Kline described structural, process, and outcome measures used in quality programs, and the importance and challenges associated with risk adjusting outcome measures. Dr. Kline closed his presentation with a discussion of how to think about air ambulance transport quality measurement. For instance, Dr. Kline suggested structural measures such as ensuring the availability of necessary equipment and trained personnel, process measures, such as clinical activities crucial for optimal outcomes, and outcome measures like all-cause mortality and preventable complications during transport, with a focus on risk adjustment to account for varying transport risks.

Committee Discussion

AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the regulatory environment.

Commissioner Grace Arnold raised a question about the applicability of CMS quality measures to air ambulance services and the Committee discussed the challenges of aligning CMS measures with private payer incentives. Mr. Tom Judge noted that the Medicare ambulance transport benefit was originally designed for transport rather than medical care, which presents challenges in establishing quality measures and conditions of participation for air ambulances.

Several public commenters expressed via the chat that they were interested in additional oversight around quality and patient safety in air ambulances. One public commenter noted that CMS and private payers pay far too much money for air medical transport not to have conditions of participation, which require safe patient care and high-quality clinical standards. Another public commenter agreed that there should be a standardized way of measuring quality in all aspects of medical transport to incentivize quality.

The discussion by Committee members highlighted the need for a thoughtful approach to implementing conditions of participation, given their stringent nature. Committee members emphasized the importance of developing quality measures that are patient-centric and do not inadvertently lead to market-driven decisions that could compromise patient care. Commissioner Arnold requested more data on the breakdown of flight payments by payer type to better understand the financial landscape of air ambulance services, and Dr. Sean Michael shared a report by the Department of Health and Human Services (HHS) Assistant Secretary for Planning and Evaluation (ASPE) that addresses this question. Mr. House also offered to provide additional data on payers if it is of interest to the Committee.

Committee members raised concerns about the balance between maintaining high-quality care and ensuring access to air ambulance services, particularly in rural areas. The Committee acknowledged that the low volume of air ambulance operations can impact provider proficiency and safety. Committee members also discussed the need for transparency and patient choice in air ambulance services, with a suggestion to develop a system similar to hospital Star Ratings to inform patients and regulators. Colonel Steven Coffee expressed the importance of public messaging, stressing that safety and quality is the highest priority when it comes to air ambulance transport, as patients do not typically have a choice in how they are being transported.

One public commenter requested air ambulance statistics for fixed-wing flights, and Mr. Crawford noted that although this data is mandated for helicopters, it is not for fixed-wing ambulances and thus the data is less available. Mr. Quisling also explained that this data is more complex as fixed-wing aircraft are typically multi-use.

Committee members also discussed crew member duty time limitations, with a suggestion by an anonymous public commenter to consider extending similar regulations to clinical crew members as are applied to pilots. Mr. Crawford noted this is an important discussion, as medical personnel are an important part of the flight crew.

In response to a public commenter's question in the chat about the goals of the Committee, Mr. Richey and Mr. Wright noted the Committee will make recommendations to Congress on improving quality and patient safety in air ambulances. Mr. Richey noted the importance of robust discussions in Committee and Subcommittee meetings to ensure that this goal is met without creating new unintended challenges.

Overall, the Committee discussion underscored the complexity of balancing quality, safety, access, and financial considerations in the air ambulance industry, with a focus on developing patient-centered solutions and recommendations for Congress.

Flight Safety Data and Best Practices

Air Ambulance Industry Safety Statistics and Initiatives

Lee Roskop, FAA

Mr. Lee Roskop provided an analysis of air ambulance industry accident data, focusing on Helicopter Air Ambulance (HAA) operations under Part 135. He began by discussing the growth of the HAA Part 135 sector, with a 23% increase in HAA flight hours from 2016 to 2023. HAA Part 135 operations accounted for a significant portion of U.S. helicopter Part 135 flight hours, surpassing other segments like offshore oil and gas and air tours. Mr. Roskop presented accident metrics from 2016 to 2024, highlighting that HAA Part 135 has a lower accident rate than the overall U.S. helicopter industry. He detailed the counts and rates of accidents, fatal accidents, and fatalities.

Mr. Roskop shared observations from fatal accident data between 2009 and 2018, using findings from the USHST and the National Transportation Safety Board (NTSB). Key accident categories included unintended flight into instrument meteorological conditions (IMC), collisions with obstacles or terrain, and loss of control during flight. The NTSB findings frequently cited environmental and personnel issues in helicopter fatal accidents from 2016 to 2024, as well as organizational and aircraft factors.

Lastly, Mr. Roskop highlighted USHST initiatives aimed at improving safety in HAA Part 135 operations, including training, policy, outreach, and technology enhancements. Notable projects included the "56 Seconds to Live" initiative focused on preventing unintended IMC. He also described current initiatives including promoting conservative decision-making and improving fatigue awareness.

Air Ambulance Flight Safety Practices

Ben Clayton, Life Flight Network

Mr. Clayton provided an overview of safety management systems (SMS) in the air ambulance industry, focusing on the role of these systems in ensuring crew and patient safety. Mr. Clayton explained that SMS are structured around four pillars defined by the FAA: policy, risk assessment, safety assurance, and safety promotion. These pillars guide organizations in maintaining a high standard of safety.

Mr. Clayton described the importance of clear safety policies in preventing organizational drift and ensuring standardized operations. He emphasized the role of employees in identifying and reporting risks, which are then mitigated through formalized procedures. He explained that safety assurance involves monitoring and evaluating safety performance, using tools like flight data monitoring to ensure operations align with expectations.

Mr. Clayton highlighted the significance of safety promotion, where leaders actively support and invest in safety initiatives. He noted that the air ambulance industry widely uses technologies such as night vision goggles, terrain awareness systems, and flight data monitoring (FDM) to enhance safety. These technologies help pilots maintain situational awareness and improve their flying skills.

Mr. Clayton discussed the FAA's oversight of air ambulance operations under Part 135, noting that the FAA provides dedicated personnel to manage safety certificates and ensure compliance. He

mentioned programs like the Aviation Safety Action Program and Line Operations Safety Audits, which allow personnel to self-report issues and receive feedback. Finally, Mr. Clayton described the collaborative nature of the air ambulance industry, with organizations like the USHST and the Air Medical Operators Association working together to share information and improve safety practices. He emphasized the industry's commitment to learning from each other to enhance overall safety.

Committee Discussion

AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the flight safety data and best practices.

Mr. Robert Reckert highlighted that some of the programs from Mr. Clayton's presentation, including the Aviation Safety Action Program and the Flight Operations Quality Assurance program, are voluntary. However, FAA data indicates these programs are successful when implemented by air carriers. Therefore, the Committee might consider recommending their adoption.

Committee members noted it would be important to understand additional details of the data, such as the impact on accident data when specific technologies are introduced. However, Committee members discussed that the data is not always coded correctly and may not make clear what technologies were used during flights. The Committee might want to address data collection requirements.

Mr. Judge shared that although there are many technologies available to an operator, not all are mandated by the FAA. Mr. Judge also explained that the NTSB issued several recommendations in their 2009 report on air ambulances, including for the HHS to pay for quality and safety. He suggested that the Committee revisit these recommendations.

An anonymous public commenter asked in the chat if there is a standard against "helicopter shopping" where a hospital contacts multiple air ambulance services to find one that will transport a patient during bad weather if other services decline to do so. Ms. Eileen Frazer noted CAMTS standards do address this and "helicopter shopping" has declined in the past decade. However, Committee members noted that there are geographical variances in weather, so requesting air services from a different location that might have more favorable weather is reasonable. In these situations, communication between operators in similar areas is essential. Operators also need to communicate to hospitals their processes for accepting or declining services.

Mr. Reckert explained that there are also technologies, like the FAA's weather camera program, that have been successful at preventing accidents, and Committee members should discuss what infrastructure investments could be made in partnership with the FAA. Mr. Judge reiterated a concern discussed throughout the day that there is not the same level of investment in low altitude infrastructure as there are in airports.

Lastly, a public commenter recommended that, in the interest of quantifying the safety impact of infrastructure, the Committee recommend that the NTSB add a code for substandard infrastructure as a cause of accidents.

Clinical Quality Environment

Voluntary Certification and Standards

Eileen Frazer, RN, CMTE, Commission on Accreditation of Medical Transport Systems (CAMTS)

Ms. Frazer provided an overview of CAMTS, highlighting its mission to improve the quality of patient care and transportation safety. Ms. Frazer explained that CAMTS is a nonprofit organization which accredits various transport services, including rotor-wing, fixed-wing, ground, and other medical transport services.

Ms. Frazer provided the history of CAMTS, which was originally formed in the 1980s in response to a lack of published standards for civilian medical transport. She highlighted the role of CAMTS in developing guidelines and standards to address safety concerns, such as night vision goggles, patient restraint protocols, and communication protocols. Ms. Frazer emphasized the importance of standards that are specific, measurable, and adaptable to different environments and resources. She explained that CAMTS reviews accidents and incidents from accredited programs to continuously learn and improve standards.

Ms. Frazer discussed the dynamic nature of CAMTS standards, which are reviewed and revised every two to three years to incorporate new technologies and practices. She highlighted the organization's focus on safety culture, fatigue risk management, and quality management. She also noted CAMTS accreditation requires the collection of GAMUT data, though there is not a reporting requirement, and CAMTS also administers a safety culture survey developed by the Agency for Healthcare Research and Quality (AHRQ).

Ms. Frazer outlined the accreditation process, which includes evaluating patient care protocols, medical direction, equipment use, and pilot qualifications. She noted that CAMTS can set standards above regulatory requirements, and that CAMTS offers flexibility in pilot qualifications through an operator risk tool which is reviewed by the Aviation Advisory Committee.

Finally, Ms. Frazer mentioned the challenges posed by the COVID-19 pandemic, which required CAMTS to adapt its accreditation process through virtual assessments and conditional accreditation.

NEMSIS Overview and Report-Out on Current Data and Gaps in Data

Eric Chaney, MS, MBA, NREMTP, National Highway Traffic Safety Administration (NTHSA), Office of Emergency Medical Services (OEMS)

Clay Mann, PhD, MS, MBA, National EMS Information System (NEMSIS) Technical Assistance Center (TAC)

Mr. Eric Chaney and Dr. Clay Mann provided an overview of the NEMSIS, focusing on its role in standardizing EMS documentation and data collection across the U.S. Mr. Chaney explained that NEMSIS is a system designed to facilitate data sharing at national and local levels, offering a comprehensive palette of approximately 600 standard data elements for EMS services to select from based on their operational needs. Mr. Chaney then described how data flows through NEMSIS, starting from local EMS services and moving up to state and national levels. He highlighted that all

50 states, three territories, and the District of Columbia participate in NEMSIS, making it a near-census of pre-hospital healthcare data.

Mr. Chaney presented specific data on aeromedical services within NEMSIS, noting that in 2023, there were 272,790 helicopter responses and 48,991 fixed-wing responses documented. However, Mr. Chaney noted that, if a state does not require the air medical services to report to the state EMS services, NEMSIS does not get that data.

Mr. Chaney detailed the types of services tracked by NEMSIS, including emergency responses, hospital-to-hospital transfers, and public assistance. He emphasized the system's capability to provide granular data, such as incident location types and the level of care provided during transport.

Mr. Chaney shared state-specific data on air ambulance usage, illustrating the variability in service use across states. He also highlighted NEMSIS's ability to analyze various aspects of air ambulance operations, such as transport times and patient care levels. Mr. Chaney invited the Committee to specify their data needs, offering to collaborate with the NASEMSO to provide detailed operational and clinical data to support the Committee's work.

Committee Discussion

AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the clinical quality environment.

Colonel Coffee inquired about the collaboration between CAMTS and the DOD, specifically the United States Transportation Command (USTRANSCOM), and how CAMTS could utilize lessons learned from the DOD. He also asked about the use of virtual CAMTS accreditation during the COVID-19 pandemic. Ms. Frazer clarified that CAMTS accredits the medical service provided and not the operator, and that while Zoom was used for CAMTS re-accreditations, all new program site visits were delayed until in-person audits could be conducted.

Mr. Judge asked about the percentage of air ambulance programs accredited by CAMTS. Ms. Frazer estimated that CAMTS accredits about 75-80% of programs in the U.S., noting the complexity of measuring this due to programs having multiple named services. Mr. Judge discussed that accreditation is not required for air ambulances but is required for other healthcare facilities, which should be discussed further among the Committee.

Mr. Richey asked if there were other accrediting bodies for air ambulance services. Ms. Frazer replied that other accrediting bodies include the National Accreditation Alliance of Medical Transport Applications (NAAMTA) and the European Aero-Medical Institute (EURAMI), for accreditation in Europe.

An anonymous public commenter asked a question in the chat that highlighted gaps in critical care transport data in NEMSIS (e.g., vehicle change, procedure specificity) and asked if there was consideration for expanded reporting. Mr. Chaney explained that NEMSIS was initially developed for ground ambulance service response and has expanded over time and there are areas where it might be expanded further if requested. Dr. Mann added that procedures are documented using

specific codes, so if a critical care procedure is captured by a specific code, it would be included in NEMSIS data, but codes are not aggregated at the national and state level.

Following an inquiry from Dr. Hinckley, Ms. Frazer stated that defining critical care levels proved too difficult, and in consultation with critical care nurses, CAMTS has currently set aside the idea of tiered accreditation.

Mr. Richey noted in the chat that the Rotorcraft Occupant Protection Working Group (ROPWG) Task 6 Report might be valuable for Subcommittee deliberations.

Mr. Judge questioned the discrepancy between NEMSIS data and FAA data on rotorcraft transports. Mr. Chaney acknowledged the gap and emphasized the need for collaboration with state EMS offices to improve data accuracy, noting that some interfacility transports and healthcare system-owned aeromedical assets might not be counted.

An anonymous public commenter asked via the chat about the costs and benefits of CAMTS accreditation. Ms. Frazer detailed the initial and ongoing costs, noting that while accreditation does not directly impact reimbursement, it can lead to savings on aviation insurance and medical malpractice premiums.

Public Comments

The public was offered an opportunity to provide comments to the Committee. There were no public commenters, although the public provided comments via the chat on Zoom and email, which were answered throughout the Committee meeting.

Flight Safety Discussion

Overview of Statutorily Required Flight Safety Discussion Topics

Nolan Crawford, FAA

Mr. Crawford outlined the tasking for the Committee and the Flight Safety Subcommittee. Mr. Crawford explained that the FAA, in coordination with DOT and HHS, established the AAQPS to make recommendations as required by the No Surprises Act. The goal of the Committee is to develop quality, patient safety, and clinical capability standards for air ambulance services.

Mr. Crawford described the FAA's tasking notice for the advisory Subcommittee, which will be available on the AAQPS website. The Subcommittee is tasked with identifying potential regulatory guidance and operational gaps in air ambulance operations. This includes analyzing integrated weather operations, special technologies, and existing regulations under Part 135, as well as reviewing NTSB data and USHST initiatives. Mr. Crawford explained that the Subcommittee is encouraged to think creatively and explore areas for improvement in flight safety and patient care. Mr. Crawford provided examples such as weather reporting, landing zones, maintenance reliability, and helicopter availability. He noted the Subcommittee should also consider differences in air ambulance vehicle types and technologies, including fixed-wing, helicopters, and powered lift, and assess Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) capabilities.

Mr. Crawford emphasized the importance of collaboration between the flight safety and clinical standards Subcommittees to enhance safety and service reliability. He asked the Subcommittee to provide clear recommendations on whether changes should be made through policy, rulemaking, guidance material, or specialized training. In conclusion, Mr. Crawford highlighted the need for critical thinking and interdependency among experts to ensure a safe environment for crews and patients, fulfilling the Congressional mandate and the FAA's objectives.

Committee Discussion

AAQPS Committee Members

Committee members were invited to engage in a discussion following Mr. Crawford's presentation. Committee members emphasized the importance of considering future advancements in aviation and clinical technology, particularly the complexity of managing airspace in urban areas and the need for aircraft capable of precision flying. The potential for public and private investments to improve rural runways and weather systems was also highlighted as an area for further exploration.

Committee members raised concerns about pilot shortages and the challenges of recruiting and retaining pilots in the air ambulance industry. The discussion touched on how industry can compete with Part 121 airlines offering higher salaries and how qualification minimums can be balanced with safety. Pay and reimbursement were cited as critical factors in attracting pilots, and the industry needs to compete financially with airlines to address shortages.

Improving service reliability in poor weather was also discussed. Dr. Hinckley mentioned that if air travel is not possible, ground transportation should be considered, but there are often not financial incentives to do so. Committee members mentioned additional challenges with ground transportation, including securing ground units for transport, particularly in rural areas where resources are limited. Other members of the Committee emphasized the fragility of rural ground services and the impact of reimbursement on service availability. They noted that the complexity of the pre-hospital environment requires careful consideration of air ambulance resources utilization. The Committee should consider discussing these issues further.

Overall, the discussion underscored the interconnectedness of air and ground transport services, the need for strategic investments in infrastructure and technology, and the importance of addressing workforce challenges to ensure the reliability and safety of air ambulance operations.

Clinical Standards Discussion

Overview of Statutorily Required Clinical Standards Discussion Topics

Sean Michael, MD, CMS

Dr. Michael outlined the complexity of establishing clinical standards due to the lack of a federal regulatory framework, in contrast with more structured flight safety regulations. He emphasized the role of CMS in ensuring high-quality healthcare through responsible spending of public funds, despite limited statutory authority over clinical services in EMS. Dr. Michael noted that the Committee should identify gaps in statutory, regulatory, and clinical standards for air ambulances, focusing on clinical capability levels, patient safety, and triage criteria. Dr. Michael encouraged the

Committee to explore existing models and frameworks, considering the multi-state nature of regulations and the interaction between clinical and safety standards. He reminded Committee members that the goal of the Clinical Standards Subcommittee, and ultimately the Committee, is to inform recommendations to Congress, considering the structures, processes, and incentives that could enhance clinical standards in air ambulance services.

Committee Discussion

AAQPS Committee Members

Committee members discussed the clinical standards tasking. Dr. Michael emphasized that CMS operates within the bounds of existing statutes and cannot independently alter payment structures or designate EMS as an essential service without Congressional action. If they deem them appropriate, Committee members can recommend these changes to Congress. Additionally, Mr. Judge highlighted the importance of cost reporting, noting that EMS is only considered an essential service in 16 states and suggesting a need for broader state-level recognition. Mr. Judge recommended experts Stephen Thomas and Jacqueline Stocking provide valuable insights into the Committee or Subcommittee on patient selection and triage.

Closing

Final Reflections

AAQPS Committee Members

Committee members praised the session for staying on topic and on time. Commissioner Arnold suggested structuring future conversations around statutorily required areas, while also facilitating general discussions that will be required to support the required recommendations, like questions around financing. Dr. Hinckley expressed hope that the Committee will be able to develop recommendations that support financial incentives for aviation safety, clinical quality, and patient safety.

Recommendations for Future Discussion Topics

Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

No additional recommendations for future session topics were discussed.

Next Steps

Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Additional Committee meetings will be held on February 18, 2025, and May 8, 2025, and Mr. Richey noted agendas for future meetings will be made public.

The meeting was adjourned by David Wright around 4:00 PM EST.

Questions and Answers

The following questions were sent by the public via email or were sent via the Zoom chat function during the meeting but were not answered live. The following are each of those questions and answers, where needed.

Question: The FAA does not officially define the Medical Crew Member as a part of the flight crew, nor license such as they do pilots and flight attendants. It would benefit the industry if they did.

Answer: Acknowledged.

Question: Is tiering focused more so on the level of service needed or selecting an appropriate provider?

Answer: Mr. Cools explained the main purpose of tiering is to ensure providers who expand operations to better serve higher acuity patients are compensated in alignment with the tiered level, but also that the most appropriate level of care and resources are available for each patient.

Question: Is there data that details the level of care across air transports?

Answer: Dr. Mann explained that, for every Electronic Patient Care Report completed using the NEMSIS standards, data is available on the credentials of the clinicians and a detailed description of the care provided.

Question: Would it be possible for quality and safety oversight to be modeled off current inpatient quality and patient safety programs, in which transparency in data collection and outcomes reporting is monitored and conducted with third-party vendors?

Answer: Dr. Michael and Dr. Kline both explained that it would be possible to create a similar program to CMS's inpatient quality reporting and value-based purchasing programs with an act of Congress. Dr. Michael noted that third-party vendors may work in parallel with CMS as Qualified Entities, but data reporting is not currently monitored and conducted solely by third party vendors for CMS's inpatient programs. Dr. Kline and Dr. Michael also mentioned that CMS could contract with an outside entity, like NEMSIS, to manage a quality reporting system, but that would require adequate funding and infrastructure investments.

AIR AMBULANCE QUALITY AND PATIENT SAFETY (AAQPS)

Federal Advisory Committee Meeting 1
Meeting Date: December 12, 2024

Note: This Advisory Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

This is a public meeting that is being watched live by members of the public and is being recorded. By staying in this meeting, you are consenting to being recorded and for the recording and transcript of this meeting to be posted publicly.

Committee Purpose

The Advisory Committee will advise the Secretary of Health and Human Services and the Secretary of Transportation on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The Advisory Committee shall study and make recommendations, as appropriate, to Congress regarding the following with respect to air ambulance services:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
4. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.
5. Clinical triage criteria for air ambulances.

The recommendations will be collated into a Report to Congress.

Committee Structure

The Advisory Committee will hold three public meetings. In addition, there will be two subcommittees: a Flight Safety Subcommittee and a Clinical Standards Subcommittee. Each Subcommittee will hold nonpublic meetings and report their recommendations to the main Committee during the public meetings.

Meetings will be announced through the Federal Register and registration will be posted at https://www.cms.gov/es/node/1974466.

Committee Members

Chair:

Jeff Richey, RN, MHA, FACHE

Members:
William Hinckley, MD
Eileen Frazer, RN, CMTE
Jason Clark
Mark Gamber, MD
Jordan Pritzker, MD
Commissioner Grace Arnold
Col. Steven Coffee
Ben Clayton
Jim Houser
Thomas Judge
Paul Julander
Jason Quisling
Robert Reckert

Reference Documents

Please see the CMS Air Ambulance Quality and Patient Safety Committee website for reference and pre-reading materials: https://www.cms.gov/es/node/1974466

Agenda: First Full Committee Meeting

Overall Meeting Objectives:

- Introduce members of the AAQPS federal advisory committee
- Describe the purpose of the committee
- Provide background information on flight safety and clinical standards
- Identify priority topics for subcommittee discussions

(See next page for agenda)

Agenda: First Full AAQPS Committee Meeting

Introduction and Background		
10:00 – 10:30 AM	**Welcome**	David Wright (DFO)
	Introduction of Members	Jeff Richey (Chair)
	Overview of the AAQPS	Jeff Richey (Chair)
Overview of the Air Ambulance Industry		
10:30 – 11:30 AM	**Overview of the Air Ambulance Industry**	Jana Williams, AAMS Jason Quisling, Air Methods, AMOA
	Patient Perspective	Josh Cools, ACCT
	Committee Discussion	
11:30 – 11:40 AM	**Break**	
Regulatory Environment		
11:40 AM – 12:40 PM	**Federal Aviation Regulations for Air Ambulance Operations**	Nolan Crawford, FAA
	State EMS Perspective	Joseph House, NASEMSO
	Current State of Quality & Patient Safety	Dr. Ron Kline, CMS
	Committee Discussion	
12:40 – 1:25 PM	**Lunch**	
Flight Safety Data and Best Practices		
1:25 – 2:10 PM	**Air Ambulance Industry Safety Statistics and Initiatives**	Lee Roskop, FAA
	Air Ambulance Flight Safety Practices	Ben Clayton, Life Flight Network
	Committee Discussion	
	Clinical Quality Environment	
2:10 – 2:55 PM	**Voluntary Certification and Standards**	Eileen Frazer, CAMTS

	NEMSIS Overview and Report-out on Current Data and Gaps in Data	Eric Chaney, NHTSA, OEMS Clay Mann, NEMSIS TAC
	Committee Discussion	
2:55 – 3:05 PM	**Break**	
	Public Comments	
3:05 – 3:25 PM		Public
	Flight Safety Discussion	
3:25 – 3:55 PM	(Focusing on the Statutorily Required Discussion Topics): • Options for improving service reliability during poor weather, night conditions, or other adverse conditions • Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety	Nolan Crawford, FAA
	Committee Discussion	
	Clinical Standards Discussion	
3:55 – 4:25 PM	(Focusing on the Statutorily Required Discussion Topics): • Clinical triage criteria for air ambulances • Qualifications of different clinical capability levels and tiering of such levels • Patient safety and quality standards	Dr. Sean Michael, CMS
	Committee Discussion	
Closing		
4:25 – 5:00 PM	**Final Reflections** • Committee final reflections • Recommendations for future discussion topics • Future meeting dates and agenda • Email/procedure for providing additional comments	Jeff Richey (Chair)

Acronyms

AAMS	Association of Air Medical Services
AAQPS	Air Ambulance Quality and Patient Safety
ACCT	Association of Critical Care Transport
AHRQ	Agency for Healthcare Research and Quality
ALS	Advanced Life Support
AMOA	Air Medical Operators Association
ASPE	Assistant Secretary for Planning and Evaluation
CAMTS	Commission on Accreditation of Medical Transport Systems
CCSQ	Center for Clinical Standards and Quality
CMS	Centers for Medicare & Medicaid Services
DOD	Department of Defense
DOT	Department of Transportation
EMS	Emergency Medical Service
EURAMI	European Aero-Medical Institute
FACA	Federal Advisory Committee Act
FAA	Federal Aviation Administration
FDM	Flight Data Monitoring
GAMUT	Ground Air Medical Quality Transport
HAA	Helicopter Air Ambulance
HHS	Department of Health and Human Services
IMC	Instrument Meteorological Conditions
InFOs	Information for Operators
NASEMSO	National Association of State EMS Officials
NEMSIS	National EMS Information System
NTHSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OEMS	Office of Emergency Medical Services
OSHA	Occupational Safety and Health Administration
ROPWG	Rotorcraft Occupant Protection Working Group
SAFOs	Safety Alerts for Operators
SMS	Safety Management Systems
TAC	Technical Assistance Center
USHST	U.S. Helicopter Safety Team

Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee Public Meeting #2 – Meeting Summary May 8, 2025

The Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee met virtually via Zoom.gov on May 8, 2025. The attached appendix identifies the AAQPS Advisory Committee members, agency employees, and others who attended the meeting. In accordance with the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2, the meeting was open to the public and meeting information was made available on the Federal Register here: https://www.federalregister.gov/d/2024-27740. The transcript and slides of the meeting are available at: AAQPS Advisory Committee.

The meeting covered several topics: (1) an overview of the Committee and its Report to Congress; (2) recommendations from the Clinical Standards Subcommittee; and (3) recommendations from the Flight Safety Subcommittee. Meeting sessions included presentations and opportunities for discussion. The presentation materials are available for public review and comment at AAQPS Advisory Committee. The agenda for the meeting and a list of the AAQPS Advisory Committee members are attached to this summary as an appendix.

Introduction and Background

Welcome

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

David Wright, Center for Clinical Standards and Quality (CCSQ), Designated Federal Officer

The AAQPS Advisory Committee (Committee) meeting began at 10:00 AM EST on May 8, 2025. Mr. Jeff Richey, serving as the Chair of the Committee, conducted a roll call of the Committee members, and outlined the meeting objectives and the agenda. Following this, Mr. David Wright, the Designated Federal Officer (DFO), delivered welcoming remarks, and provided an overview of logistical arrangements for the meeting. Mr. Wright thanked Committee members for their ongoing commitment to patient safety.

Patient Experience

Colonel Steven Coffee, MA, EMCQSL, Founding Member, Patients for Patient Safety US

Col. Coffee delivered an address that underscored the importance of improving the patient experience in healthcare systems. He began by sharing a video about his son's journey as a baby through the healthcare system, which ultimately led to a diagnosis of a metabolic condition called galactosemia, an air ambulance transfer between two hospitals, and a life-saving liver transplant. Drawing from his personal experience, Col. Coffee highlighted significant challenges he encountered during the diagnostic process, including communication barriers between providers and parents. He noted that providers across two hospitals relied heavily on the parents, who used lay terminology rather than clinical language, to convey vital information about their son's symptoms, test results, and care. This reliance on parent descriptions, coupled with the dismissal of parent concerns, created gaps in care coordination and delayed critical interventions. He

emphasized that patients and their families are an invaluable resource in the care process, and their insights and experiences should not be overlooked or ignored. To do so, he argued, is to lose a valuable source of information that could enhance care delivery and improve outcomes.

In closing, Col. Coffee encouraged Committee members to ensure that patient-centered care remains at the forefront of their recommendations. He reminded the Committee of the significant role air ambulances play in delivering critical care and urged them to consider this unique aspect of healthcare delivery in their discussions.

Report to Congress Overview

David Wright, Center for Clinical Standards and Quality (CCSQ), Designated Federal Officer

Mr. Wright provided an overview and a detailed explanation of the purpose and significance of a Report to Congress, emphasizing its role as a foundational tool for informing both Congressional and Executive level policymaking. He highlighted that the Committee's report is congressionally mandated under the No Surprises Act (NSA) and will serve as a critical resource for the Centers for Medicare and Medicaid Services (CMS) and the Federal Aviation Administration (FAA) in shaping future policies.

The Committee's report will describe the five statutory areas mandated by the NSA and include an overview of the Committee's composition, its deliberation process, and final recommendations developed through collaborative discussions. He underscored the relevance of the Reports to Congress, reminding Committee members that these documents often influence policy decisions for many years beyond their initial publication. In his final remarks, Mr. Wright urged Committee members to draw on their diverse experiences and perspectives to develop the best recommendations to inform the work of the federal government.

Introduction of AAQPS Subcommittee Members

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey introduced the Co-Chairs of the Clinical Standards Subcommittee, Mr. Kolby Kolbet and Mr. Keith McMinn, who in turn introduced the members of the Clinical Standards Subcommittee. Mr. Richey also introduced Mr. Jason Quisling, the Chair of the Flight Safety Subcommittee, who introduced members of the Flight Safety Subcommittee.

Presentation of Subcommittee Recommendations and Voting Process

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey described the structured process for deliberating and voting on each recommendation. He explained that each recommendation presented by the Subcommittee Chairs would be discussed in detail, during which Committee members would be encouraged to ask questions, propose modifications, and work collaboratively to refine the recommendation to reach a final version on which to vote. Mr. Richey discussed how he would move the Committee to a vote once deliberations had reached consensus or near-consensus, and he emphasized the importance of the Committee members voicing any concerns or questions prior to the voting process to ensure all perspectives are considered. He explained that voting would occur following the Committee's

deliberations on each Subcommittee recommendation, and in instances where consensus could not be reached, the Committee could defer voting until the next scheduled meeting on July 10, particularly if additional expertise or information was needed to inform the decision-making process.

Clinical Standards Subcommittee: Recommendations

Background

Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Mr. Kolbet began his remarks by reiterating the statutory mandate for the AAQPS Advisory Committee and highlighting the Clinical Standards Subcommittee's three primary focus areas for recommendations: (1) qualifications of different clinical capability levels and tiering of such levels; (2) patient and quality standards; and (3) clinical triage criteria for air ambulances.

Mr. Kolbet provided an overview of the Subcommittee's deliberative process, noting that the Subcommittee convened four times between January and April 2025 to develop its recommendations. He emphasized the valuable contributions of the CMS Center for Clinical Standards and Quality Internal Advisory Council, which served as a resource by providing written analysis and oral presentations to inform the Subcommittee's recommendations. This collaborative approach ensured that the recommendations were grounded in an understanding of CMS policy and aligned with broader federal healthcare standards.

Mr. Kolbet shared the five key problem areas identified by the Clinical Standards Subcommittee during its deliberations. These problem areas include: (1) claims denials related to medical necessity; (2) market availability of the appropriate clinical capabilities; (3) the lack of minimum national standards for air ambulance clinical quality; (4) promoting a Just Culture[68] framework for patient safety; and (5) availability of patient clinical information following transfer of care to inform quality improvement initiatives.

In response to the first two problem areas, the Clinical Standards Subcommittee proposed endorsing four existing recommendations from the Air Ambulance and Patient Billing (AAPB) Advisory Committee, a federal advisory committee established under the FAA Reauthorization Act of 2018, that met between January 2020 to August 2021 and developed a Report to Congress in March 2022. The AAPB recommendations address problem areas related to medical necessity

[68] The Clinical Standards Subcommittee developed the following definition for a "Just Culture": Just Culture in healthcare is an approach to accountability and organizational learning that supports a collaborative culture of reliability, where healthcare professionals, teams, and systems work together to ensure high-quality, safe patient care, while minimizing harm and improving outcomes. It recognizes that while human errors are inevitable in complex care environments, most adverse events result from system vulnerabilities rather than individual negligence.
A Just Culture fosters a culture of psychological safety in which staff are empowered and expected to report errors (regardless of outcome), near misses, and unsafe conditions without fear of retribution—fostering transparency, trust, and continuous improvement. It promotes shared accountability: organizations are responsible for designing systems to mitigate risk to the highest degree possible, and individuals are responsible for reporting system vulnerabilities and for the quality of their choices within those systems.

determinations; adequacy of Medicare reimbursement; the preemption of state authority under the Airline Deregulation Act (ADA) and the resulting ambiguity in regulating clinical aspects of care; and collecting and analyzing data on the air ambulance industry to inform future policy and reimbursement conversations. For the remaining three problem areas, the Subcommittee developed five new recommendations tailored to address the identified gaps.

Overview of Recommendations CS-1a and 1b

Keith A. McMinn, Director, Life Lion, Penn State Health Milton S. Hershey Medical Center, Clinical Standards Subcommittee Co-chair

Mr. McMinn explained that the Clinical Standards Subcommittee engaged in a collaborative brainstorming process to identify potential solutions for addressing the three problem statements identified as gap areas. Through this approach, the Subcommittee established the following goals for each recommendation: (1) establish minimum national clinical standards, (2) promote a Just Culture framework for patient safety, (3) and improve access to patient clinical data.

Mr. McMinn introduced the first problem statement developed by the Clinical Standards Subcommittee, which focused on the variability in clinical capability levels across air ambulance providers. To address this, the Subcommittee proposed recommendations CS-1a and 1b as initial steps toward establishing minimum national clinical standards. Recommendation CS-1a specifically proposed establishing air ambulance as a provider type regulated by Medicare, ensuring consistent minimum standards and oversight nationwide and providing a foundation for other recommendations put forth by the Subcommittee. Recommendation CS-1b proposed establishing compulsory accreditation for Medicare air ambulance providers, further standardizing clinical capabilities and promoting safe, high-quality care. The problem statement and recommendations are as follows:

Problem statement: Variability in the equipment and clinical capabilities available on air ambulances can present a clinical risk to patient safety when the available equipment, personnel, and training are not adequately matched to the needs of the patient; this presents particular risks for specialty populations and low frequency/high risk patients (e.g., neonatal/pediatric, high-risk obstetrics, patients in rural areas).

- **Recommendation CS-1a:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.
- **Recommendation CS-1b:** Congress should pass legislation to require compulsory accreditation for Medicare air ambulance providers. The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process must include periodic reassessment of compliance and must include exceptions or waivers for operators in rural/frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes.

Mr. McMinn then reviewed background and current state information related to establishing minimum national clinical standards. Specifically, he noted that under the Medicare program, air ambulance organizations are currently considered suppliers of a transportation benefit rather than recognized as a Medicare provider type. As a result, Medicare reimbursement for air ambulance services is limited to transportation costs only, with no differentiation for healthcare services requiring specialized personnel or equipment.

To qualify for Medicare supplier claims reimbursement, ambulance providers must demonstrate basic requirements, such as being equipped with a stretcher and emergency medical supplies, but do not undergo periodic certification to maintain their participation in the Medicare program. In contrast, Medicare providers are subject to certification requirements, known as Conditions of Participation (CoPs), which include minimum health and safety standards. These providers must undergo periodic certification by CMS, conducted by state survey agencies or CMS- approved accreditation organizations. If a provider cannot meet those standards, and cannot come into compliance through the remediation process, they can no longer participate in the Medicare program. While these requirements are more specific than the supplier requirements, they are still very high level.

Mr. McMinn further clarified that clinical aspects of air ambulance services are regulated at the state level, similar to other healthcare providers. However, this causes complications for the air ambulance setting, as most air ambulances operate across state lines. This is further complicated by the ADA, which, as Subcommittee members discussed, has in some cases,[69] caused ambiguity regarding the extent to which states can and cannot regulate clinical services in the air ambulance setting. This lack of clarity, along with geographic and population variability, has resulted in inconsistent requirements across state lines, creating challenges for providers and patients alike. For this reason, the Clinical Standards Subcommittee determined that establishing national minimum clinical standards is essential to reduce the inconsistency of requirements across state lines, foster a shared vision for safety across the industry, and ensure that patients requiring air ambulance services can be assured that these meet a minimum safety standard.

Mr. McMinn then outlined the four options considered by the Subcommittee to establish minimum national clinical standards, including two options the Subcommittee ultimately decided not to propose in their recommendations. These included: (1) updating existing Medicare supplier requirements for ambulance services, (2) establishing air ambulance as a new Medicare provider type (CS-1a), (3) requiring compulsory accreditation for air ambulances seeking reimbursement as Medicare suppliers of ambulance services (CS-1b), and (4) requiring compulsory national accreditation for all air ambulance providers regardless of Medicare participation. Mr. Wright then noted the distinctions between the four options to help inform the Committee's deliberations and vote.

Committee Discussion CS-1a and 1b

Clinical Standards Subcommittee Co-Chairs

AAQPS Committee Members

[69] Federal Preemption of State Regulation Over Air Ambulances.

Mr. McMinn proposed recommendations CS-1a and CS-1b for Committee consideration and opened the floor for discussion.

The discussion first focused on the accreditation process, with Ms. Eileen Frazer inquiring about how CMS would evaluate an accreditation agency and the specific criteria that would be utilized to do so. Further, Ms. Frazer requested clarity on whether CMS would review the accrediting organizations to ensure they follow good processes to set their individual standards. Mr. Wright, the CMS DFO, responded that the standards for accreditation would be established through rulemaking and public comment and shared that CMS does review the accrediting organizations, including financial solvency and other important attributes.

Committee members noted that recommendation CS-1b, focused on requiring compulsory accreditation for air ambulance providers seeking Medicare reimbursement, positions CMS to become another safety regulation body in addition to the FAA, potentially creating overlapping regulatory roles. Committee members went on to share their concerns that this might result in conflicting requirements, unintended impacts of healthcare requirements on aviation, or confusion about respective roles and responsibilities. Mr. Wright responded that the scope of each Agency's authority would be defined clearly, and that adding clinical standards requirements overseen by CMS would not preclude FAA from continuing to oversee flight safety.

Mr. Jason Quisling asked if there was current research or data that could provide insight into the current state of clinical quality and patient safety in air ambulances. Mr. Kolbet discussed that current standards vary across states and that it was very important for the Clinical Standards Subcommittee to have the same standards and quality of care regardless of what state a patient was transported in.

Mr. Kolbet further clarified that the Subcommittee focused on the care delivered in the back of the aircraft rather than operations in the cockpit and that both recommendations were intended to reflect that clinical care. Mr. Kolbet reminded Committee members that the levels of care would be discussed in later recommendations, but recommendations CS-1a and CS-1b were focused on defining the base level of care (the "floor") before defining higher levels of care.

Committee members also discussed potential unintended consequences of CMS regulations impacting aviation operations. In response, Mr. Tom Judge stated his belief that the Clinical Standards Subcommittee recommendations envisioned a different way of thinking about air ambulance operations, commending the Subcommittee for being forward-thinking about where the industry should strive to go in the future. He stressed the importance of thinking about the patient and making sure the patient receives the best care possible, regardless of the state where they receive that care, and he also mentioned concerns about rural and frontier locations adhering to a lower level of care. He emphasized that clinical standards should be similar across the country, and any waivers or exemptions should be used sparingly, and only when strictly necessary, such as in very remote frontier areas.

Mr. Quisling cautioned against focusing on billing during these safety-focused conversations. He also asked how one would quantify the impact of these proposals on improving patient care. Finally, he shared concerns that imposing a minimum national standard might limit access to care, noting that in the United States there are different levels of care provided to ensure there is access

to some level of emergency transport even if the highest level of care is not available in each community due to resource constraints.

Col. Coffee shared his support for recommendations CS-1a and CS-1b and how they will improve care from the patient perspective. He underscored the importance of these recommendations, serving as a first step in getting the whole of government to improve the quality of care delivered in air ambulances.

Several Committee members expressed their support for recommendations CS-1a and CS-1b including Dr. Jordan Pritzker, Dr. Mark Gamber, and Dr. William Hinckley. Dr. Pritzker encouraged the Committee to prioritize the quality of patient care, while acknowledging the administrative burden and costs. Dr. Gamber stressed the importance of recognizing the excellent care provided by air ambulance providers, and Dr. Hinckley noted concerns about waivers for rural and frontier areas. He agreed with having some exceptions for frontier areas such as upper Alaska but stated that the vast majority of air ambulance programs in America operate in rural areas, and he felt that those operators should not be exempted from minimum national requirements, such as those proposed in CS-1b.

Mr. Wright acknowledged the tension between accounting for variances in resources and geography, so that operators are still able to serve their communities and avoid a two-tiered system of quality and safety. He outlined solutions CMS has previously considered or implemented, including delayed implementation in which some communities are allowed a longer time frame to come into compliance, individual operator waivers, or categorical exemptions, such as for communities of a certain size.

Mr. Robert Reckert noted how the FAA has leveraged consensus standards to improve the safety levels within aviation; however, he expressed hesitation in the FAA's ability to properly regulate patient care.

Some Committee members, including Mr. Ben Clayton and Mr. Jason Clark, expressed support for moving the vote of these recommendations to the July meeting to enable additional discussion on unintended consequences.

Committee members agreed to vote on recommendation CS-1a and defer the vote for CS-1b until the July AAQPS Committee Meeting.

Voting CS-1a

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation CS-1a was adopted by the Committee. Recommendation CS-1b was deferred for further discussion in the July AAQPS meeting.

Voting Member	CS-1a
Com. Arnold	Abstain
Mr. Clark	Yes
Mr. Clayton	Abstain
Col. Coffee	Yes
Ms. Frazer	Yes

Voting Member	CS-1a
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	No
Dr. Pritzker	Yes
Mr. Quisling	No
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 9** **No: 2** **Abstain: 3**

Overview of Recommendation CS-2: Promote a Just Culture Framework for Patient Safety

Overview of Recommendation CS-2: Promote a Just Culture Framework for Patient Safety

Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Krista Haugen, Co-founder, Survivors Network for the Air Medical Community, Clinical Standards Subcommittee member

Emily Colyer, Director of Patient Safety, Air Methods, Clinical Standards Subcommittee member

Mr. Kolbet presented the next problem statement, the goal for addressing the problem statement, and proposed recommendation developed by the Clinical Standards Subcommittee:

Problem statement: There is no consistently used, non-retaliatory framework for advancing patient safety in the air ambulance setting (analogous to the Aviation Safety Action Program, Maintenance Safety Action Program, or Safety Management System for aviation safety) which follows the principles of a Just Culture based on trust, fairness, and learning.

Goal: Promote a Just Culture framework for patient safety

- **Recommendation CS-2:** Congress should direct the Department of Health and Human Services (HHS) to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulance which includes reporting on the PSSM.

Mr. Kolbet discussed that there is no widely adopted non-retaliatory framework in the air ambulance setting that supports patient safety, despite having such frameworks and programs for aviation safety including the Aviation Safety Action Program (ASAP), Maintenance Safety Action Program (MSAP), and Safety Management System (SMS). Creating a culture of safety requires a system-based, non-retaliatory approach to identifying, reporting, and managing risks. This mindset is deeply embedded in aviation and is equally essential in clinical care. To help promote this on the

clinical side, Mr. Kolbet explained that the Clinical Standards Subcommittee was recommending developing a Patient Safety Structural Measure (PSSM) that would be tailored for air medical transport and integrated into a new federal quality reporting program specifically designed for air ambulance providers. Mr. Kolbet then invited two members of the Clinical Standards Subcommittee to present additional background and details of this recommendation.

Ms. Krista Haugen shared a personal story related to an air medical transport crash and the importance of applying a systematic approach to managing risk and promoting a Just Culture to prevent such a tragedy from recurring. She noted that the air medical industry operates at the intersection of two highly complex and high-risk industries, healthcare and transportation. The industry needs a systematic approach, resources, and infrastructure to both reactively and predictively manage clinical hazards and risks. She emphasized that aviation has this approach, mandated by the FAA, in the form of SMS, which outlines expectations around safety policy, risk management, safety assurance, and safety promotion that help to organize and standardize safety practices within organizations and industry. She noted that there are no such federal standards for patient safety or risk management in air medical care. However, HHS has recently mandated reporting of a PSSM for the hospital setting, and Ms. Haugen highlighted the parallels of this measure to an aviation SMS, noting a PSSM-style framework could essentially serve as a clinical SMS for air medical transport.

Ms. Haugen further noted that harm from preventable medical errors is a significant national issue, one that was highlighted in a 2023 report from the President's Council of Advisors on Science and Technology (PCAST). She also discussed that the full scope of preventable harm in air ambulance care is unclear due to underreporting and the lack of a framework and consistent processes to manage clinical risks.

Ms. Emily Colyer then provided an overview of the PSSM in the CMS Inpatient Quality Reporting (IQR) Program and described the requirements providers must meet under this framework. She noted that in the Hospital IQR Program, there is no penalty or incentive associated with a provider's score on the measure – they do not need to demonstrate a perfect program, but they are required to demonstrate thoughtful review about their organization's progress in each of the five domains.

Ms. Colyer emphasized the conceptual overlap between the PSSM and aviation SMS, and the underlying principle widely accepted in industry that building a process-based structure results in more consistent and improved outcomes. She then outlined the five domains of the PSSM, drawing parallels to the conceptual pillars of aviation SMS. She noted that the final pillar aligns directly with Col. Coffee's earlier presentation regarding the importance of patient and family engagement in advancing safety and quality.

Ms. Colyer explained that CoPs for Medicare providers (recommendation CS-1a) offer a very basic standard, and accreditation (recommendation CS-1b) represents a more rigorous clinical standard. The PSSM acts as the next level, a shared framework and vision for advancing patient safety beyond the requirements of CoPs or accreditation.

Mr. Kolbet concluded by noting that the recommendation would complement existing aviation SMS frameworks and create opportunities for integrated management of clinical and aviation safety risks.

Committee Discussion CS-2

CS Subcommittee Co-chairs

AAQPS Committee Members

Many Committee members voiced their support for this recommendation, including Col. Coffee. Mr. Judge commended the Clinical Standards Subcommittee's thoughtful approach to the recommendation. In particular, he appreciated the idea of having a shared vision and framework for the industry, particularly of being able to develop an integrated risk, safety, and quality management system across aviation and clinical operations. Mr. Quisling echoed Mr. Judge's comments and noted the importance of fostering a learning culture to drive meaningful safety results. Mr. Houser voiced his support for the recommendation, citing the success of similar aviation initiatives such as ASAP and SMS. He asked for these current mechanisms to be kept in place as this new mechanism (PSSM) is adopted.

Ms. Frazer also voiced her support, noting that Commission on Accreditation of Medical Transport Systems (CAMTS) has noticed through accreditation that even though they are working from a list of accreditation standards, each program has their own approach to reporting, and felt that a shared framework would be beneficial.

Mr. Reckert reiterated the current frameworks from FAA (i.e., SMS, ASAP) and voiced concern about challenges with the voluntary nature of the reporting, specifically citing that FAA does not have authority to provide protection to a provider who reports a concern related to clinical safety. Ms. Colyer addressed his concerns and stated there are policy and statutory protections for providers who report safety events, citing the Patient Safety and Quality Assurance Act of 2005 and protections provided for voluntary reporting to Patient Safety Organizations (PSOs). She noted that these protections would apply to pre-hospital providers as well.

Voting CS-2

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation CS-2 was adopted by the committee.

Voting Member	CS-2
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Yes

Voting Member	CS-2
Mr. Richey	Yes
Vote Count	**Yes: 14** **No: 0** **Abstain: 0**

Overview of Recommendations CS-3a and 3b: Improve Access to Patient Clinical Data

Overview of Recommendations CS-3a and 3b: Improve Access to Patient Clinical Data

Keith A. McMinn, Director, Life Lion, Penn State Health Milton S. Hershey Medical Center, Clinical Standards Subcommittee Co-chair

Emily Colyer, Director of Patient Safety, Air Methods, Clinical Standards Subcommittee member

Mr. McMinn reviewed the problem statement, goal for addressing the problem statement, and two recommendations proposed by the Clinical Standards Subcommittee:

Problem statement: It is difficult for air ambulance providers to get follow-up information on patient clinical data after transfer of care, limiting quality improvement activities and negatively impacting crew wellbeing.

Goal: Improve access to patient clinical data

- **Recommendation CS-3a:** HHS should issue guidance to hospitals and air ambulance providers clarifying that HIPAA does not prevent sharing patient clinical data for quality improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.
- **Recommendation CS-3b:** Congress should provide additional funding to bolster existing state and federal efforts to develop and promote health information exchange. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.

Ms. Colyer provided an overview of the current state related to the exchange of patient clinical data. Her overview emphasized that patient clinical outcomes data is a cornerstone of patient safety across the country and that providers are interested in understanding the effectiveness of the care they deliver and whether their interventions lead to improved patient outcomes. For most medical systems, there is no bi-directional flow of data from air ambulance transports and healthcare settings (health systems, hospitals, etc.). Ms. Colyer stressed that there is no standard process for sharing patient data, no standard data set, and no industry-wide consensus on the importance of sharing this type of data across providers.

Ms. Colyer stated the importance of air ambulance providers having the same clinical standards and protections that other provider types have when it comes to sharing data with one another. Establishing these standards would enable air ambulance providers to study air medical outcomes and improve patient care.

Committee Discussion CS-3a and 3b

CS Subcommittee Co-chairs

AAQPC Committee Members

Mr. Quisling noted this is not often an area of focus, but it is essential to determine whether providers are delivering the right care to patients and improving the overall quality of care for patients.

Multiple Committee members supported recommendation CS-3a, focused on clarifying Health Insurance Portability and Accountability Act (HIPAA) compliance. Dr. Pritzker asked whether patients would be required to provide consent for their clinical data to be released back to the air ambulance provider after the transfer of care. Mr. Wright noted that oversight of HIPAA compliance falls outside of CMS responsibility, and that any such guidance would likely come from the HHS component responsible for HIPAA compliance (currently the HHS Office of Civil Rights), as appropriate.

Col. Coffee inquired about a comment made by Mr. McMinn about the scope and scale of the challenges associated with patient clinical data exchange among providers. Mr. McMinn clarified that there is not enough data to truly understand the magnitude of the issue. He noted that some hospital-based air medical programs are very successful at getting patient clinical data to inform their quality improvement efforts and other programs struggle to receive follow-up patient data. Col. Coffee responded that this lack of transparency in the exchange of patient clinical data supports his earlier argument about patients needing access to this type of data as well to enable them to be the "third set of eyes" in the clinical setting.

Mr. Richey further clarified that the intent of this recommendation, CS-3a, would be to release guidance to hospitals and air ambulance providers on how patient clinical data can be exchanged in accordance with HIPAA regulations, including clarification on release forms and paperwork.

Mr. Judge complimented the intent of this recommendation and that it further supports the PSSM recommendation the Committee approved. He noted that air ambulance patients are a unique set of patients, and the exchange of patient clinical data is essential for continuity of care. Mr. Judge provided an example of how patient information exchange is done in Maine and emphasized that there are ways to do this legally, but it may require some initial investment.

Mr. Reckert encouraged the Committee to think about how this data can be used to study general aviation safety management trends, in addition to clinical trends, at a systemic level. He voiced his support for collecting de-identified data as a way for addressing safety issues, similar to what has been done in aviation.

Voting CS-3a and 3b

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendations CS-3a and CS-3b were adopted by the committee.

Voting Member	CS-3a	CS-3b
Com. Arnold	Abstain	Abstain
Mr. Clark	Yes	Yes
Mr. Clayton	Yes	Yes
Col. Coffee	Yes	Yes
Ms. Frazer	Yes	Yes
Dr. Gamber	Yes	Yes
Dr. Hinckley	Yes	Yes
Mr. Houser	Yes	Yes
Mr. Judge	Yes	Yes
Mr. Julander	Yes	Yes
Dr. Pritzker	Yes	Yes
Mr. Quisling	Yes	Yes
Mr. Reckert	Yes	Abstain
Mr. Richey	Yes	Yes
Vote Count	**Yes: 13** **No: 0** **Abstain: 1**	**Yes: 12** **No: 0** **Abstain: 2**

AAPB Recommendations Relevant to AAQPS

Due to time constraints, discussion of AAPB recommendations was deferred to the July meeting. Mr. Judge requested that the original language of the AAPB recommendations be included, as it reflected careful deliberation from that Committee (Mr. Judge was a member of the AAPB Advisory Committee).

Recommendations and Additional Discussion

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey shared a summary of the Clinical Standards Subcommittee recommendations and respective voting results.

Adopted recommendations:

- **Recommendation CS-1a:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.
    - Voting Results: 9 Yes; 2 No; 3 Abstain
- **Recommendation CS-2:** Congress should direct HHS to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulance which includes reporting on the PSSM.
    - Voting Results: 14 Yes; 0 No; 0 Abstain
- **Recommendation CS-3a:** HHS should issue guidance to hospitals and air ambulance providers clarifying that HIPAA does not prevent sharing patient clinical data for quality

improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.

  - Voting Results: 13 Yes; 0 No; 1 Abstain

- **Recommendation CS-3b:** Congress should provide additional funding to bolster existing state and federal efforts to develop and promote health information exchange. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.

  - Voting Results: 12 Yes; 0 No; 2 Abstain

Clinical Standards Subcommittee Recommendations: Voting results

Voting Member	CS-1a	CS-2	CS-3a	CS-3b
Com. Arnold	Abstain	Yes	Abstain	Abstain
Mr. Clark	Yes	Yes	Yes	Yes
Mr. Clayton	Abstain	Yes	Yes	Yes
Col. Coffee	Yes	Yes	Yes	Yes
Ms. Frazer	Yes	Yes	Yes	Yes
Dr. Gamber	Yes	Yes	Yes	Yes
Dr. Hinckley	Yes	Yes	Yes	Yes
Mr. Houser	Yes	Yes	Yes	Yes
Mr. Judge	Yes	Yes	Yes	Yes
Mr. Julander	No	Yes	Yes	Yes
Dr. Pritzker	Yes	Yes	Yes	Yes
Mr. Quisling	No	Yes	Yes	Yes
Mr. Reckert	Abstain	Yes	Yes	Abstain
Mr. Richey	Yes	Yes	Yes	Yes
Vote Count	**Yes: 9** **No: 2** **Abstain: 3**	**Yes: 14** **No: 0** **Abstain: 0**	**Yes: 13** **No: 0** **Abstain: 1**	**Yes: 12** **No: 0** **Abstain: 2**

Recommendations held for further discussion during the July AAQPS Committee Meeting:

- **Recommendation CS-1b:** Congress should pass legislation to require compulsory accreditation for Medicare air ambulance providers. The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process must include periodic reassessment of compliance and must include exceptions or waivers for operators in rural/frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes.

The four AAPB recommendations relevant to AAQPS will also be discussed in the July AAQPS Committee Meeting. Mr. Judge and Dr. Pritzker recommended incorporating the exact recommendation language from the AAPB Advisory Committee into the recommendations for

AAQPS Committee vote. Ms. Arnold requested that the discussion incorporate the payor landscape.

Before closing the discussion of recommendations from the Clinical Standards Subcommittee, Dr. Hinckley asked whether the July meeting would include any discussion of a recommendation around tiering of clinical capability levels, citing the statutory language authorizing the AAQPS Advisory Committee. He wanted to ensure the AAQPS Committee would meet its statutory mandate to address the topics. The Clinical Standards Subcommittee members shared that the Subcommittee had discussed tiering and understood and supported the intent behind a tiering approach, but they felt that tiering was fundamentally not the most appropriate way to categorize clinical capabilities for air ambulance. Instead, the Subcommittee recommended prioritizing the establishment of a "floor" or basic set of minimum national standards (recommendations CS-1a and CS-1b) and also establishing air ambulance operators as a provider type (recommendation CS-1a) and then reimbursing according to procedure and modifier codes for specialty services (recommendation CS-B). The latter recommendation will be discussed further during the July meeting. Mr. Wright also noted that the Committee's responsibility is to explore each topic, and provide recommendations only as appropriate, not necessarily to put forward a recommendation on every topic.

Flight Safety Subcommittee: Recommendations

Background

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reiterated the statutory mandate guiding the AAQPS Committee and outlined the two key recommendation focus areas for the Flight Safety Subcommittee: (1) options for improving service reliability during poor weather, night conditions, or other adverse conditions; and (2) differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

Mr. Quisling presented the six key problem areas identified by the Flight Safety Subcommittee, which included the following topics: (1) increased demand for air ambulance services; (2) safety concerns in adverse weather conditions; (3) focus on crash survivability; (4) focus on technology integration; (5) performance-based standards; and (6) public and legislative attention.

To provide context for the Subcommittee's recommendations, Mr. Quisling summarized the five Flight Safety Subcommittee meetings and highlighted the contributions of five subject matter experts who presented to the Subcommittee members offering critical insights and expertise to inform its work. These experts included: Mr. Chichoon Shin from the National Transportation Safety Board; Mr. Austin Croft from the Aviation Weather Center; Mr. Cliff Johnson from the FAA William J. Hughes Technical Center for Advanced Aerospace; Mr. Rex Alexander from Five-Alpha; and Mr. Cohl Pope from the FAA. Mr. Quisling emphasized the importance of these expert contributions in shaping the Subcommittee's recommendations and ensuring alignment with the broader goals of the AAQPS Advisory Committee. He concluded by noting that the Subcommittee's work reflects a commitment to advancing patient safety and operational reliability in the air ambulance industry and provided an overview of the Subcommittee's recommendations.

Overview of Recommendation FS-1: Enhance Weather Reporting and Infrastructure in Non-Terminal Areas

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Gaps in Weather Reporting in Non-Terminal Areas: Adverse weather creates significant challenges for smaller aircraft, especially helicopters that often take off and land at small, private hospital helipad and scene locations (non-terminal areas) rather than large, well-equipped airports with full weather forecasts. Weather information for flights close to the ground—below 5,000 feet—is often incomplete or unavailable, particularly in non-terminal areas where there are fewer weather stations and limited access to approved weather sources.

Goal: Enhance weather reporting and infrastructure in non-terminal areas

- **Recommendation FS-1:** Congress should allocate funding to expand weather services in non-terminal areas and invest in the research and development of new and innovative weather reporting and forecasting technologies through targeted grants and initiatives. Congress should direct the FAA to expand access to FAA-approved sources of real-time weather data and advanced predictive capabilities, prioritizing non-terminal areas. This effort should prioritize:
    - Deploying additional new Visual Weather Observation Systems (VWOS).
    - Installing weather cameras to enable real-time monitoring across the United States.
    - Increasing access to Terminal Doppler Weather Radar (TDWR) systems.
    - Enhancing surface detection capabilities, improving forecasting accuracy, and advancing predictive analysis tools.
    - Integrating approved weather sources into the National Airspace Data. Interchange (NADIN) for Graphical Forecasts for Aviation-Low Altitude (GFA-LA).

Mr. Quisling highlighted a number of benefits for consideration including improved safety for air ambulance operations, more reliable emergency response in rural areas, and improved safety for all low-altitude aviation operations. He also discussed challenges including that adequate funding is necessary to assure the benefit for all regions of the country, and that geographic locations are not all conducive to the efforts.

Mr. Quisling concluded by emphasizing the importance of addressing gaps in weather reporting infrastructure to improve safety and reliability for air ambulance operations and other low-altitude aviation activities. He noted that recommendation FS-1 represents a significant opportunity to enhance operational safety, particularly in underserved and rural areas, while fostering innovation in weather reporting technologies.

Committee Discussion FS-1

Flight Safety Subcommittee Chair

AAQPS Committee Members

Mr. Judge suggested revising the language in the last bullet of the recommendation, by replacing "approved weather services" with "approved weather sources." The Committee agreed with this edit, and the change is reflected in the recommendation above.

Mr. Nolan Crawford, from the FAA, highlighted the high number of air ambulance mission declines due to lack of information about current weather conditions or adverse weather conditions encountered after takeoff, emphasizing the need for improved weather reporting and forecasting capabilities.

Col. Coffee emphasized that weather infrastructure is fundamental to safety and voiced his support for the recommendation.

Voting FS-1

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-1 was adopted by the Committee.

Voting Member	**FS-1**
Com. Arnold	Abstain
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 2**

Overview of Recommendation FS-2: Modernize Helipad Data, Infrastructure, and Safety Standards

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Hospital Helipad Safety and Data Gaps: Many hospital helipads, critical for air ambulance operations, are not listed in the FAA's Airport Data and Information Portal (ADIP) database, leaving over a third unaccounted for. This lack of comprehensive data, combined with voluntary heliport design standards and inconsistent oversight, results in safety risks such as airspace conflicts, substandard facilities, and inadequate disaster management capabilities. Additionally, the absence of standardized markings and unclear weight and size limitations further complicate safe operations.

Goal: Modernize Helipad Data, Infrastructure, and Safety Standards

- **Recommendation FS-2:** Congress should authorize funding and establish initiatives to modernize and digitize the Airport Data Information Portal (ADIP) in collaboration with the FAA and industry stakeholders. This effort should ensure accurate and comprehensive data on heliports, helipads, and landing zones, including critical information such as weight limits, markings, and Instrument Flight Rules (IFR) compatibility. This effort should prioritize:
    - Integrating updated helipad and heliport data into commercially available pilot navigation tools.
    - Establishing competitive grants to upgrade substandard helipads and heliports to meet FAA design standards (e.g., Advisory Circular 150/5390-2D).
    - Including maintenance of hospital helipad data in the ADIP as a Condition of Participation to be evaluated by hospital accreditation organizations.
    - Adding IFR-compatible infrastructure to improve safety and reliability, especially in rural and underserved areas (non-terminal areas).
    - Incorporating locations with medical services into the United States Notices to Airmen (NOTAM) system.

Mr. Quisling highlighted many benefits of this recommendation. He discussed that accurate and updated heliport data would improve operational safety and route planning, reduce delays, and support critical medical missions. It would also improve airspace awareness and create streamlined processes. Further, he discussed that improved communication between the FAA, hospitals, and the aviation industry would enhance coordination and problem-solving. Lastly, he noted that mandating updates and raising awareness would ensure facilities maintain accurate and comprehensive information, and that the recommendation could lead to improved safety and efficiency in emergency responses to multi-patient incidents and disaster events at regional or national levels.

Mr. Quisling also highlighted several challenges for consideration including that smaller facilities may struggle to meet new data requirements, voluntary compliance has not always been effective

in the past, and that grants could favor larger facilities, leaving smaller facilities and those in rural areas underfunded.

Committee Discussion FS-2

FS Subcommittee Chair

AAQPS Committee Members

Dr. Hinckley asked for clarification on what IFR infrastructure refers to. Mr. Quisling explained that it primarily involves clean data about infrastructure.

Mr. Judge noted the need for investment on both the regulatory and hospital sides, as many heliports lack compliance due to insufficient oversight. In addition, the National Transportation Safety Board (NTSB) often attributes issues to pilots, but improved helipad standards could address systemic safety concerns.

Voting FS-2

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-2 was adopted by the Committee.

Voting Member	**FS-2**
Com. Arnold	Abstain
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Abstain
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 11** **No: 0** **Abstain: 3**

Overview of Recommendation FS-3: Improve Low-Altitude Instrument Flight Rules (IFR) Infrastructure

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Challenges with Low-Altitude Instrument Flight Rules (IFR) Operations: Air ambulance operations face significant limitations due to the lack of low-altitude IFR infrastructure, including IFR approaches to helipads. This restricts operations during poor weather, delays patient transport, and increases safety risks. The complexity of accessing the IFR system and the absence of mandated standards for helipad design exacerbate these challenges, hindering reliable and timely emergency medical services. Additionally, the rapid growth of low-altitude aviation, unmanned aircraft system (UAS), including drones and advanced air mobility vehicles, is increasing airspace congestion near hospitals and airports, potentially delaying critical life-saving missions.

Goal: Improve Low-Altitude Instrument Flight Rules (IFR)

- **Recommendation FS-3:** Congress should direct the FAA to develop low-altitude IFR routes and enhance air traffic control (ATC) capabilities. Congress should increase Helicopter Air Ambulance (HAA) use of the IFR system by funding the required infrastructure and directing the FAA to adopt policies and procedures to support its use by all low-altitude aircraft, crewed and uncrewed. Infrastructure needs include adding additional Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters, radar systems, controller–pilot data link communications (CPDLC), and communication equipment and incentivizing hospitals and operators to adopt IFR-compatible infrastructure. Necessary policies and procedures include expansion of low-altitude IFR routes and approaches, including an HAA Performance Based IFR route structure. Additionally, Congress should direct the FAA to develop a traffic management framework to mitigate risks associated with the growth of unmanned aircraft system (UAS) and advanced air mobility operations.

Mr. Quisling provided an overview of the benefits associated with adopting this recommendation. He highlighted that this recommendation would enhance safety by reducing reliance on visual flight rules (VFR), minimizing risks associated with poor visibility and adverse weather. He also discussed that rural and underserved areas would benefit from access to higher-level medical care, better connectivity, and enhanced reliability for patient transport. Lastly, he mentioned that a traffic management framework for UAS drones and advanced air mobility would reduce potential airspace conflicts and ensure safe integration of emerging technologies and air ambulance operations.

Mr. Quisling also noted several potential challenges including that developing IFR routes and upgrading infrastructure could face logistical and regulatory hurdles, and that hospitals and air ambulance operators may struggle to afford IFR-compatible upgrades, even with funding incentives. Lastly, he discussed that the FAA may not have adequate resources without increased funding for added oversight and support functions.

Committee Discussion FS-3

Flight Safety Subcommittee Chair

AAQPS Committee Members

Mr. Clayton, a member of the AAQPS Committee and the Flight Safety Subcommittee, added further context to the importance of this recommendation, noting that establishing consistent procedures across operators would help the FAA maintain safety.

Dr. Hinckley asked for clarification on the nature of proprietary (privately developed and owned) approaches at hospitals and Mr. Clayton responded with an overview of the current system including that hospitals often pay private companies to develop and maintain approaches. Additionally, Mr. Judge noted he has supported efforts in the Northeast to develop and share approaches. He emphasized the importance of public oversight over proprietary systems, especially with new entrants into the airspace. Lastly, Mr. Richey noted that he participates in a subscription program in Alaska as opposed to a proprietary system.

Mr. Crawford added that just over a decade ago, the country had 200-300 proprietary procedures, however that has quickly expanded, and the current number is now in the thousands. Mr. Crawford and Mr. Reckert highlighted the lack of FAA investment in low-level operations compared to Part 121 airspace, stressing the need for future-focused infrastructure development. Mr. Crawford stated that Controller Pilot Data Link Communications (CPDLC) has been available to Part 121 operations for a long time and would be beneficial to helicopter air ambulances and other air operations like offshore flights to oil rigs. He then discussed ZK routes which are low-altitude routes which can improve safety, access, and efficiency, for example by often allowing aircraft to remain below icing conditions.

Commissioner Arnold raised concerns about cost burden and how to quantify the expense compared to the return on that investment. Mr. Judge suggested that a public-private partnership model would help to spread costs between public and private funding, again noting that this area has traditionally lacked significant investment. Commissioner Arnold had further questions about on whom the cost burden would fall, and if it would be primarily born by the hospitals. Mr. Judge discussed that it would take a combination of funding and investment from hospitals, states, the federal government and others. Lastly, Mr. Quisling mentioned that currently, industry bears the majority of the cost.

Voting FS-3

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-3 was adopted by the Committee.

Voting Member	FS-3
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Abstain
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes

Voting Member	FS-3
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 2**

Overview of Recommendation FS-4: Enhance Safety and Technology for Single-Pilot Operations

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Addressing Safety and Airspace Challenges in Air Ambulance Operations: Air ambulance operations face significant safety challenges due to high pilot workloads in demanding conditions like adverse weather, low visibility, and night flights, which can impact situational awareness and decision-making. Additionally, the rapid growth of low-altitude aviation, including unmanned aircraft systems (UAS) and advanced air mobility vehicles, is increasing airspace congestion and pilot workload near hospitals and airports, potentially interfering with critical life-saving missions.

Goal: Enhance Safety and Technology for Single-Pilot Operations

- **Recommendation FS-4:** Congress should mandate new air ambulance helicopters be equipped with Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) and require pilot training on their use. Additionally, Congress should provide funding incentives to retrofit existing helicopters and support FAA research into enhanced vision technologies, workload reduction systems, and advanced simulation tools (including virtual reality), with expedited development through industry collaboration.

Mr. Quisling highlighted the benefits associated with this recommendation. He noted SAS and AFCS systems and enhanced vision technologies would reduce pilot workload, improve situational awareness, and support safer single-pilot operations in challenging conditions. Further, by simulating complex scenarios, virtual reality (VR) training would enhance situational awareness and aeronautical decision-making, preparing pilots for real-world challenges. Lastly, he noted that investments in advanced simulation tools, like VR headsets and workload reduction systems, would prepare the industry for the growing demands of low-altitude aviation.

Mr. Quisling also explained the possible challenges of adopting this recommendation including that retrofitting existing helicopters and implementing new technologies could strain budgets for smaller operators, even with funding incentives and that there might be a few regulatory challenges to implementing this recommendation. For example, expanding VR training authorization could require updates to existing regulations and standards, which could delay widespread adoption. He

also noted the certification process to incorporate new technologies is neither timely nor efficient and could be cost prohibitive.

Committee Discussion FS-4

FS Subcommittee Chair

AAQPS Committee Members

Flight Safety Subcommittee members discussed that training would be an important part of the implementation of this recommendation, but Mr. Quisling clarified that the focus of the recommendation is on equipping pilots with advanced technology.

Voting FS-4

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-4 was adopted by the Committee.

Voting Member	**FS-4**
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Abstain
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Abstain
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 11** **No: 0** **Abstain: 3**

Overview of Recommendation FS-5: Streamline Certification and Expedite Approval Pathways for Air Ambulance Technologies and Medical Equipment

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Barriers to Innovation – New Technology and Medical Equipment Certification: Current certification requirements restrict the timely adoption of new technologies, including advanced aircraft

systems, medical equipment, and safety technologies, and limit the ability to enhance patient care and improve operational efficiency in emergency medical services.

Goal: Streamline Certification and Expedite Approval Pathways for Air Ambulance Technologies and Medical Equipment

- **Recommendation FS-5:** Congress should mandate that the FAA develop performance-based standards and establish standardized policies and procedures, across all offices, to streamline the certification process for advanced aircraft systems and medical equipment. Congress should also mandate the development of expedited approval pathways for technologies critical to patient care and operational safety, ensuring timely certification of innovations that enhance emergency medical services to include a dedicated liaison team within the FAA Aircraft Certification Service to improve communication with operators and manufacturers, expedite approvals, and provide regulatory guidance.

Mr. Quisling highlighted the many benefits associated with adopting this recommendation. He discussed that streamlined certification and expedited approval pathways will enable quicker integration of advanced aircraft systems and medical equipment, improving safety and patient care in emergency medical services. He noted that standardized policies and procedures, along with a dedicated FAA liaison team, would reduce delays and inconsistencies, allowing operators to deploy new technologies more effectively. Further, he described how this recommendation would lead to improved collaboration and clarity by developing a dedicated liaison team to enhance communication between regulators, operators, and manufacturers, providing clear guidance and simplifying the implementation of critical technologies. Lastly, he explained this recommendation would provide a pathway for original equipment manufacturers and operators to improve design efficiency while meeting certification requirements.

Mr. Quisling also offered a few challenges for the Committee to consider in their deliberations including that establishing expedited pathways and a dedicated liaison team could require significant funding and staffing, straining FAA resources. He also discussed that transitioning to performance-based standards and streamlined processes could involve extensive revisions to existing regulations, requiring time and stakeholder buy-in. Lastly, he mentioned that balancing expedited approvals with rigorous safety assessments may pose challenges.

Committee Discussion FS-5

Flight Safety Subcommittee Chair

AAQPS Committee Members

Mr. Clayton, a Flight Safety Subcommittee member, provided additional context to this recommendation for Committee members explaining how his team had to wait over a year for FAA approval to provide essential liquid oxygen to patients on fixed-wing aircraft during the COVID-19 pandemic.

Mr. Reckert suggested an edit to the language of the recommendation noting the term “branch” was incorrect and should be updated to “service.” The Committee agreed with this change and the updated language is reflected in the recommendation above.

Voting FS-5

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-5 was adopted by the Committee.

Voting Member	FS-5
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Yes
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 13** **No: 0** **Abstain: 1**

Overview of Recommendation FS-6: Mandate Critical Safety Standards for Air Ambulance Occupant Protection

Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement:

Occupant Safety Standards (Addressing NTSB Recommendations): To date, recommendations from the FAA Part 135 Aviation Rulemaking Advisory Committee (ARAC) regarding air ambulance occupant protective technologies for crash worthy fuel systems, crash resistant seating, and crash resistant interiors have not been widely adopted voluntarily, leaving passengers and crew vulnerable to preventable injuries and fatalities during accidents. Addressing this issue is essential to ensure the safety of occupants, align industry practices with proven safety standards, and reduce the human and economic costs of rotorcraft accidents.

Goal: Mandate Critical Safety Standards for Air Ambulance Occupant Protection

- **Recommendation FS-6:** Congress should mandate the implementation of FAA Rotorcraft Occupant Protection Working Group (ROPWG) Part 135 Aviation Rulemaking Advisory Committee (ARAC) recommendations on helicopter air ambulance occupant protective technologies, including crashworthy fuel systems, crash-resistant seating, and crash-

resistant interiors. Legislative action is necessary to ensure industry-wide compliance with proven safety standards, protect passengers and crew from preventable injuries and fatalities, and reduce the human and economic impact of rotorcraft accidents.

Mr. Quisling explained that this recommendation is supported by substantial data demonstrating the effectiveness of these technologies, such as energy-attenuating seats, helmets, and Nomex flight suits, in improving safety outcomes. He discussed that implementing these standards would ensure consistent safety measures across the air ambulance sector, ultimately enhancing protection for patients and crew.

Committee Discussion FS-6

Flight Safety Subcommittee Chair

AAQPS Committee Members

Dr. Hinckley asked for clarification on how older aircraft would be handled with this mandate and if there would be waivers for older models that could not be retrofitted. Mr. Reckert explained that Congress needs to decide on the approach to address this and Dr. Hinckley requested additional clarity on what was being recommended as part of the ARAC recommendation. Mr. Judge emphasized the importance of retrofitting older aircraft, despite potential cost concerns. Mr. Judge also emphasized the importance of enforcing safety for aircraft if better equipment is available. Mr. Reckert noted that the FAA has to account for economic impact in addition to safety during the rulemaking process but any direction from Congress would supersede that.

Ms. Frazer requested clarification on whether this recommendation also applied to fixed-wing aircraft. Further, she requested that all of the recommendations be revisited to ensure they were clear as to which type of aircraft they applied to. Mr. Quisling noted that the wording refers to specific ARAC recommendations aimed at helicopter air ambulances, and Ms. Frazer said the word “helicopter” should be added to make that clear.

Ms. Haugen, who was a part of the ROPWG, referenced in this recommendation, provided additional context saying that further study and research into the recommendations might be necessary. She noted that at the time of the report, the ROPWG did not have cost data that is now available.

Mr. Crawford suggested verifying the language, noting that the language of the recommendation included what was presented to the ARAC but not what the ARAC officially recommended. He posed the option of delaying voting on the recommendation until July to ensure alignment with ongoing external working group efforts applicable to this recommendation. Mr. Judge added to this that the FAA Safety Alert for Operators (SAFOs) did not address legacy aircraft, which is the focus of the recently established workgroup.

The Committee agreed to postpone further discussion on this recommendation until the next meeting where the Committee could review additional information.

Voting FS-6

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

The Committee agreed to delay the vote on recommendation FS-6 until the July 10 AAQPS Committee Meeting.

Recap of Recommendations and Additional Discussion

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey shared a summary of the Flight Safety Subcommittee recommendations and respective voting results.

Adopted recommendations:

- **Recommendation FS-1:** Congress should allocate funding to expand weather services in non-terminal areas and invest in the research and development of new and innovative weather reporting and forecasting technologies through targeted grants and initiatives. Congress should direct the FAA to expand access to FAA-approved sources of real-time weather data and advanced predictive capabilities, prioritizing non-terminal areas. This effort should prioritize: Deploying additional new Visual Weather Observation Systems (VWOS); Installing weather cameras to enable real-time monitoring across the United States; Increasing access to Terminal Doppler Weather Radar (TDWR) systems; Enhancing surface detection capabilities, improving forecasting accuracy, and advancing predictive analysis tools; Integrating approved weather sources into the National Airspace Data Interchange (NADIN) for Graphical Forecasts for Aviation – Low Altitude (GFA-LA).
    - Voting Results: 12 Yes; 0 No; 2 Abstain
- **Recommendation FS-2:** Congress should authorize funding and establish initiatives to modernize and digitize the Airport Data Information Portal (ADIP) in collaboration with the FAA and industry stakeholders. This effort should ensure accurate and comprehensive data on heliports, helipads, and landing zones, including critical information such as weight limits, markings, and Instrument Flight Rules (IFR) compatibility. This effort should prioritize: Integrating updated helipad and heliport data into commercially available pilot navigation tools; Establishing competitive grants to upgrade substandard helipads and heliports to meet FAA design standards (e.g., Advisory Circular 150/5390-2D); Including maintenance of hospital helipad data in the ADIP as a Condition of Participation (CoP) to be evaluated by hospital accreditation organizations; Adding IFR-compatible infrastructure to improve safety and reliability, especially in rural and underserved areas (non-terminal areas); Incorporating locations with medical services into the United States Notices to Airmen (NOTAM) system.
    - Voting Results: 11 Yes; 0 No; 3 Abstain
- **Recommendation FS-3:** Congress should direct the FAA to develop low-altitude IFR routes and enhance air traffic control (ATC) capabilities. Congress should increase Helicopter Air Ambulance (HAA) use of the IFR system by funding the required infrastructure and directing the FAA to adopt policies and procedures to support its use by all low altitude aircraft, crewed and uncrewed. Infrastructure needs include adding additional Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters, radar systems, controller–pilot data link communications (CPDLC), and communication equipment and incentivizing hospitals and operators to adopt IFR-compatible infrastructure. Necessary policies and

procedures include expansion of low-altitude IFR routes and approaches, including an HAA Performance Based IFR route structure. Additionally, Congress should direct the FAA to develop a traffic management framework to mitigate risks associated with the growth of unmanned aircraft system (UAS) and advanced air mobility operations.

  - Voting Results: 12 Yes; 0 No; 2 Abstain

- **Recommendation FS-4:** Congress should mandate new air ambulance helicopters be equipped with Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) and require pilot training on their use. Additionally, Congress should provide funding incentives to retrofit existing helicopters and support FAA research into enhanced vision technologies, workload reduction systems, and advanced simulation tools (including virtual reality), with expedited development through industry collaboration.
  - Voting Results: 11 Yes; 0 No; 3 Abstain
- **Recommendation FS-5:** Congress should mandate that the FAA develop performance-based standards and establish standardized policies and procedures, across all offices, to streamline the certification process for advanced aircraft systems and medical equipment. Congress should also mandate the development of expedited approval pathways for technologies critical to patient care and operational safety, ensuring timely certification of innovations that enhance emergency medical services to include a dedicated liaison team within the FAA Aircraft Certification Service to improve communication with operators and manufacturers, expedite approvals, and provide regulatory guidance.
  - Voting Results: 13 Yes; 0 No; 1 Abstain

Flight Safety Subcommittee Recommendations: Voting results

Voting Member	**#FS-1**	**FS-2**	**FS-3**	**FS-4**	**FS-5**
Com. Arnold	Abstain	Abstain	Yes	Yes	Yes
Mr. Clark	Yes	Yes	Yes	Yes	Yes
Mr. Clayton	Yes	Yes	Yes	Yes	Yes
Col. Coffee	Yes	Abstain	Abstain	Abstain	Yes
Ms. Frazer	Yes	Yes	Yes	Yes	Yes
Dr. Gamber	Yes	Yes	Yes	Yes	Yes
Dr. Hinckley	Yes	Yes	Yes	Abstain	Yes
Mr. Houser	Yes	Yes	Yes	Yes	Yes
Mr. Judge	Yes	Yes	Yes	Yes	Yes
Mr. Julander	Yes	Yes	Yes	Yes	Yes
Dr. Pritzker	Yes	Yes	Yes	Yes	Yes
Mr. Quisling	Yes	Yes	Yes	Yes	Yes
Mr. Reckert	Abstain	Abstain	Abstain	Abstain	Abstain
Mr. Richey	Yes	Yes	Yes	Yes	Yes
Vote Count	**Yes: 12 No: 0 Abstain: 2**	**Yes: 11 No: 0 Abstain: 3**	**Yes: 12 No: 0 Abstain: 2**	**Yes: 11 No: 0 Abstain: 3**	**Yes: 13 No: 0 Abstain: 1**

Recommendations held for further discussion during the July AAQPS Committee Meeting:

- **Recommendation FS-6:** Congress should mandate the implementation of FAA Rotorcraft Occupant Protection Working Group (ROPWG) Part 135 Aviation Rulemaking Advisory Committee (ARAC) recommendations on helicopter air ambulance occupant protective technologies, including crashworthy fuel systems, crash-resistant seating, and crash-resistant interiors. Legislative action is necessary to ensure industry-wide compliance with proven safety standards, protect passengers and crew from preventable injuries and fatalities, and reduce the human and economic impact of rotorcraft accidents.

Additionally, each Flight Safety recommendation will be reviewed for language to ensure it is clear whether it applies to helicopters only or to fixed-wing aircraft as well. Any changes will be reviewed at the next meeting.

Public Comments

The public was offered an opportunity to provide comments to the AAQPS Committee. There were no public commenters, although the public provided comments via the chat on Zoom, which were answered during the Committee meeting to ensure transparency and engagement. The public did not provide comments via email.

Next Steps

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey expressed his gratitude for the Subcommittee chairs and members for their participation in and preparation for the meeting. Mr. Richey noted he was impressed with the leadership demonstrated by Committee members during the meeting's discussions. Lastly, he reminded everyone that the public can provide additional comments by emailing CMS at AAQPS@cms.hhs.gov.

A third Committee meeting will be held on July 10, 2025. The meeting agenda will be publicly available, and members of the public will have the opportunity to register for and attend that meeting.

Finally, Mr. Richey noted he is open to feedback on the meeting's format and suggestions for improvement for future meetings.

The meeting was adjourned by the DFO, Mr. Wright, around 4:30 PM EST.

Questions and Answers

The following questions were sent by the public via email or were sent via the Zoom chat function during the meeting but were not answered live. The following are each of those questions and answers, where needed.

Question: Why am I not able to vote?

Answer: The vote is just for the AAQPS Committee Members. If you would like to provide public comment, please feel free to do so at any time via email: AAQPS@cms.hhs.gov.

AIR AMBULANCE QUALITY AND PATIENT SAFETY (AAQPS)

Federal Advisory Committee Meeting 2

Meeting Date: May 8, 2025

Note: This Advisory Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

This is a public meeting that is being watched live by members of the public and is being recorded. By staying in this meeting, you are consenting to being recorded and for the transcript of this meeting to be posted publicly.

Committee Purpose

The Advisory Committee will advise the Secretary of Health and Human Services and the Secretary of Transportation on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The Advisory Committee shall study and make recommendations, as appropriate, to Congress regarding the following with respect to air ambulance services:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
4. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.
5. Clinical triage criteria for air ambulances.

The recommendations will be collated into a report to Congress.

Committee Structure

The Advisory Committee will hold three public meetings. In addition, there will be two subcommittees: a Flight Safety subcommittee and a Clinical Standards subcommittee. Each subcommittee will hold nonpublic meetings and report their recommendations to the main committee during the public meetings.

Meetings will be announced through the Federal Register and registration will be posted at: https://www.cms.gov/es/node/1974466.

Committee Members

Chair:
Jeff Richey, RN, MHA

Members:
William Hinckley, MD
Eileen Frazer, RN
Jason Clark
Mark Gamber, MD
Jordan Pritzker, MD
Commissioner Grace Arnold
Col. Steven Coffee
Ben Clayton
Jim Houser, MSN, APRN
Thomas Judge
Paul Julander
Jason Quisling
Robert Reckert

Reference Documents

Please see the CMS Air Ambulance Quality and Patient Safety Committee website for reference and pre-reading materials here: https://www.cms.gov/es/node/1974466.

Agenda: Second Full Committee Meeting

Overall Meeting Objectives:

- Review the findings of the subcommittees on each topic area, including problem statements and recommendations.
- Hear from Committee members and other subject matter experts, as needed, to provide additional context around subcommittee recommendations.
- Come to consensus and vote on subcommittee recommendations.
- Discuss gaps in subcommittee recommendations.

(See next page for agenda)

Agenda: Second Full AAQPS Committee Meeting

Introduction and Background		
10:00 – 10:30 AM	**Welcome**	David Wright (DFO)
	AAQPS Committee Goals	Jeff Richey (Chair)
	Patient Experience	Col. Coffee
	Report to Congress Overview	Jeff Richey and David Wright
	Introduction of Subcommittees, Subcommittee Chairs, and the Presentation of Subcommittee Recommendations	Jeff Richey Jason Quisling Kolby Kolbet Keith McMinn
Clinical Standards Subcommittee: Recommendations		
10:30 AM – 12:10 PM	**Recommendations** • Problem • Justification • Benefits and challenges	Kolby Kolbet Keith McMinn
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
12:10 – 1:00 PM	**Lunch**	
Clinical Standards Subcommittee: Additional Recommendations and Review		
1:00 – 1:30 PM	**Recommendations** • Problem • Justification • Benefits and challenges	Kolby Kolbet Keith McMinn
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
1:30 – 2:00 PM	**Recap of recommendations and additional discussion**	Jeff Richey
2:00 – 2:10 PM	**Break**	

Flight Safety Subcommittee: Recommendations		
2:10 – 3:30 PM	**Recommendations** • Problem • Justification • Benefits and challenges	Jason Quisling Nolan Crawford
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
	Flight Safety Subcommittee: Additional Recommendations and Review	
3:30 – 4:00 PM	**Recommendations** • Problem • Justification • Benefits and challenges	Jason Quisling Nolan Crawford
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
4:00 – 4:20 PM	**Recap of recommendations and additional discussion**	Jeff Richey
4:20 – 4:30 PM	**Break**	
Public Comments		
4:30 – 4:45 PM		Public
Closing		
4:45 – 5:00 PM	**Final Reflections** • Committee final reflections • Recommendations for future discussion topics • Future meeting date and agenda • Email/procedure for providing additional comments	Jeff Richey

Subcommittee Members

Clinical Standards Subcommittee Members

Co-Chairs:
Kolby Kolbet
Keith McMinn

Members:
Emily Colyer
Michelle Greeson
Krista Haugen
Todd McDowell
Frankie Toon

Flight Safety Subcommittee Members

Chairs:
Jason Quisling

Members:
Ben Clayton
Jim Houser
Thomas Judge
Paul Julander
Robert Reckert

Acronyms

AAPB	Air Ambulance and Patient Billing
AAQPS	Air Ambulance Quality and Patient Safety
ADA	Airline Deregulation Act
ADIP	Airport Data Information Portal
ADS-B	Automatic Dependent Surveillance–Broadcast
AFCS	Auto Flight Control Systems
ARAC	Aviation Rulemaking Advisory Committee
ASAP	Aviation Safety Action Program
ATC	Air Traffic Control
CAMTS	Commission on Accreditation of Medical Transport Systems
CCSQ	Center for Clinical Standards and Quality
CMS	Centers for Medicare & Medicaid Services
CoP	Condition of Participation
CPDLC	Controller–Pilot Data Link Communications
DFO	Designated Federal Officer
FACA	Federal Advisory Committee Act
FAA	Federal Aviation Administration
GFA-LA	Graphical Forecasts for Aviation – Low Altitude
HAA	Helicopter Air Ambulance
HHS	Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
IFR	Instrument Flight Rules
IQR	Inpatient Quality Reporting
MSAP	Maintenance Safety Action Program
NADIN	National Airspace Data. Interchange
NOTAM	United States Notices to Airmen
NSA	No Surprises Act
NTSB	National Transportation Safety Board
PCAST	President's Council of Advisors on Science and Technology
PSO	Patient Safety Organization
PSSM	Patient Safety Structural Measure
ROPWG	Rotorcraft Occupant Protection Working Group
SAFOs	Safety Alerts for Operators
SAS	Stability Augmentation Systems
SMS	Safety Management Systems
TDWR	Terminal Doppler Weather Radar
UAS	Unmanned Aircraft System
VFR	Visual Flight Rules
VR	Virtual Reality
VWOS	Visual Weather Observation Systems

Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee Public Meeting #3 – Meeting Summary July 10, 2025

The Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee met virtually via Zoom.gov on July 10, 2025. The attached appendix identifies the AAQPS Advisory Committee members, agency employees, and others who attended the meeting. In accordance with the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2, the meeting was open to the public. The transcript and slides of the meeting are available at: AAQPS Advisory Committee

The meeting covered several topics: (1) a review of the findings and clarification on recommendations not resolved during the May 8 AAQPS Committee meeting; (2) additional context provided by Committee members and other subject matter experts regarding the Subcommittee recommendations; (3) consensus and a vote on the remaining Subcommittee recommendations. Meeting sessions included presentations and opportunities for discussion. The presentation materials are available for public review and comment at AAQPS Advisory Committee. The agenda for the meeting and a list of the AAQPS Advisory Committee members are attached to this summary as an appendix.

Introduction and Background

Welcome
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair
David Wright, Center for Clinical Standards and Quality (CCSQ), Designated Federal Officer

The AAQPS Advisory Committee (Committee) meeting began at 10:00 AM EST on July 10, 2025. Mr. David Wright, the Designated Federal Officer, gave welcoming remarks and shared meeting logistics. Mr. Wright thanked Committee members for their ongoing commitment to safety. Mr. Jeff Richey introduced himself as the Chair of the Committee, offered welcoming remarks, took roll call of Committee members, and shared meeting objectives and the agenda.

Mr. Richey shared background information on the Clinical Standards and Flight Safety Subcommittees. Both Subcommittees provided updates to the Committee on their deliberations, looked to the Committee for guidance on prioritization, and helped Committee members understand the background and nuance of each of their recommendations.

Mr. Richey described the structured process for voting on each recommendation and discussed how he would move the Committee to a vote once deliberations had reached consensus or near-consensus. He emphasized this meeting was the Committee's final opportunity to put forward questions and comments for discussion. The Committee would have the opportunity to provide clarifications on meeting discussions in the Report to Congress but would not be able to add information that was not discussed during the Committee meetings.

Recap of the May 8, 2025, Meeting
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Richey provided a comprehensive review of the Committee's deliberations during the meeting held on May 8, 2025. The Subcommittee chairs presented recommendations for AAQPS

consideration and answered questions. The Committee discussed and deliberated on those recommendations and voted on and passed nine recommendations to be included in the Report to Congress. The Committee also agreed to discuss one additional Flight Safety-focused recommendation and five Clinical Standards-focused recommendations during the final Committee meeting held on July 10, 2025. Mr. Richey shared the nine recommendations adopted by the Committee during the Committee meeting held on May 8, 2025:

- **AAQPS Recommendation:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.
- **AAQPS Recommendation:** Congress should direct HHS to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulance which includes reporting on the PSSM.
- **AAQPS Recommendation:** HHS should issue guidance to hospitals and air ambulance providers clarifying that HIPAA does not prevent sharing patient clinical data for quality improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.
- **AAQPS Recommendation:** Congress should provide additional funding to bolster existing state and federal efforts to develop and promote health information exchange. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.
- **AAQPS Recommendation:** Congress should allocate funding to expand weather services in non-terminal areas and invest in the research and development of new and innovative weather reporting and forecasting technologies through targeted grants and initiatives. Congress should direct the Federal Aviation Administration (FAA) to expand access to FAA-approved sources of real-time weather data and advanced predictive capabilities, prioritizing non-terminal areas. This effort should prioritize: deploying additional new Visual Weather Observation Systems (VWOS); installing weather cameras to enable real-time monitoring across the U.S.; increasing access to Terminal Doppler Weather Radar (TDWR) systems; enhancing surface detection capabilities, improving forecasting accuracy, and advancing predictive analysis tools; integrating approved weather sources into the National Airspace Data Interchange (NADIN) for Graphical Forecasts for Aviation – Low Altitude (GFA-LA).
- **AAQPS Recommendation:** Congress should authorize funding and establish initiatives to modernize and digitize the Airport Data Information Portal (ADIP) in collaboration with the FAA and industry stakeholders. This effort should ensure accurate and comprehensive data on heliports, helipads, and landing zones, including critical information such as weight limits, markings, and Instrument Flight Rules (IFR) compatibility. This effort should prioritize: integrating updated helipad and heliport data into commercially available pilot navigation tools; establishing competitive grants to upgrade substandard helipads and heliports to meet FAA design standards (e.g., Advisory Circular 150/5390-2D); Including maintenance of hospital helipad data in the ADIP as a Condition of Participation (CoP) to be evaluated by hospital accreditation organizations; adding IFR-compatible infrastructure to improve safety and reliability, especially in rural and underserved areas (non-terminal areas); incorporating locations with medical services into the U.S. Notices to Airmen (NOTAM) system.

- **AAQPS Recommendation:** Congress should direct the FAA to develop low-altitude IFR routes and enhance air traffic control (ATC) capabilities. Congress should increase Helicopter Air Ambulance (HAA) use of the IFR system by funding the required infrastructure and directing the FAA to adopt policies and procedures to support its use by all low altitude aircraft, crewed and uncrewed. Infrastructure needs include adding additional Automatic Dependent Surveillance–Broadcast (ADS-B) transmitters, radar systems, controller–pilot data link communications (CPDLC), and communication equipment and incentivizing hospitals and operators to adopt IFR-compatible infrastructure. Necessary policies and procedures include expansion of low-altitude IFR routes and approaches, including an HAA Performance Based IFR route structure. Additionally, Congress should direct the FAA to develop a traffic management framework to mitigate risks associated with the growth of unmanned aircraft system (UAS) and advanced air mobility operations.
- **AAQPS Recommendation:** Congress should mandate that new air ambulance helicopters be equipped with Stability Augmentation Systems (SAS) or Auto Flight Control Systems (AFCS) and require pilot training on their use. Additionally, Congress should provide funding incentives to retrofit existing helicopters and support FAA research into enhanced vision technologies, workload reduction systems, and advanced simulation tools (including virtual reality), with expedited development through industry collaboration.
- **AAQPS Recommendation:** Congress should mandate that the FAA develop performance-based standards and establish standardized policies and procedures, across all offices, to streamline the certification process for advanced aircraft systems and medical equipment. Congress should also mandate the development of expedited approval pathways for technologies critical to patient care and operational safety, ensuring timely certification of innovations that enhance emergency medical services to include a dedicated liaison team within the FAA Aircraft Certification Service to improve communication with operators and manufacturers, expedite approvals, and provide regulatory guidance.

Flight Safety Subcommittee: Recommendation

Background
Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

The two topics that the Flight Safety Subcommittee studied and addressed in their recommendations are as follows:

- Options for improving service reliability during poor weather, night conditions, or other adverse conditions, and
- Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.

In studying and addressing these topics, the Flight Safety Subcommittee recognized that air ambulance safety has gained public and legislative attention. The Subcommittee considered the increased demand for air ambulance services, especially in rural and remote areas with limited access to critical care facilities. They also considered infrastructure and technology improvements that could address safety concerns specific to adverse weather conditions. The Subcommittee noted that despite advancements, crash survivability remains a challenge, and that further improvements in aircraft design are possible. Additionally, cost barriers have impeded the adoption of some advanced technologies, such as helicopter terrain awareness and warning systems

(HTAWS), which could improve operational safety for air ambulance crews. Finally, the Subcommittee discussed the role of performance-based standards in designing more efficient and safety-compliant aircraft, as well as streamlining the certification process.

Mr. Quisling described the Flight Safety Subcommittee's five meetings from December 2024 through April 2025. During these meetings, the Subcommittee discussed the two statutory areas and identified key concerns including infrastructure gaps, human factors, low-altitude congestion, and unimplemented recommendations. They then considered potential ways to address these concerns, such as improved weather reporting, updated infrastructure, unified standards, and enhanced technology and regulations. The Subcommittee prioritized potential solutions and, finally, reviewed and finalized draft recommendations to present to the full Committee.

Mr. Quisling described the recommendations adopted by the AAQPS Committee in the May 8, 2025, meeting. These recommendations are AAQPS Recommendations 5 through 9, listed above.

Overview of Recommendation FS-6: Mandate Critical Safety Standards for Air Ambulance Occupant Protection
Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Flight Safety Subcommittee:

Problem statement*:*
Occupant Safety Standards (Addressing NTSB Recommendations): A regulatory gap exists that allows certain helicopters with Type Certificates issued prior to 1994 and manufactured prior to 2020 to operate without meeting current safety and certification standards outlined in CFR 14 Parts 27 and 29. These certification requirements have been proven to reduce injuries and fatalities for occupants of helicopters. Allowing helicopters with a type certificate prior to 1994 to continue to operate in the absence of mandatory adherence to updated safety standards – such as crash-resistant fuel systems, enhanced occupant protection, and structural integrity requirements – heightens the likelihood of preventable injuries and fatalities in the event of an accident.

Goal: Mandate critical safety standards for air ambulance occupant protection

- **Recommendation FS-6:** Congress should mandate the implementation of FAA Part 135 ARAC recommendations on helicopter air ambulance occupant protective technologies, including crashworthy fuel systems as referenced in SAFO 19006. Legislative action is necessary to ensure industry-wide compliance with proven safety standards and bring all helicopters utilized for air ambulance operations into compliance with CFR 14 Part 27 and 29 in the following areas:
    - CFR 27/29.952(a)(1)(2)(3)(5)(6), 27/29.952(f), and 27.963(g)/29.963(b)
    - CFR 27/29.562, 27/29.785(c) and (g)
    - CFR 27/29.561

Mr. Quisling provided context for this recommendation. The Flight Safety Subcommittee considered open recommendations from the NTSB and FAA Working Groups. Specifically, they considered the

2018 FAA Rotorcraft Occupant Protection Working Group (ROPWG) Crash Resistant Seats and Structures (CRSS) and Crash Resistant Fuel Systems (CRFS) recommendations accepted by the FAA Aviation Rulemaking Advisory Committee (ARAC). Aircraft with a Type Certification issued after 1994 must comply with the requirements outlined in CFR 14 Parts 27 and 29. Aircraft manufactured between 1994 and 2020 under type certificates issued prior to 1994 are not required to comply with these standards. The Subcommittee identified this gap as a safety concern which increases the likelihood of preventable injuries and fatalities. The Subcommittee determined legislative action was necessary to close this regulatory gap and ensure the highest level of safety for air ambulance passengers and crew. Closing this gap would ensure manufacturers implement proven protective capabilities and would align practices with established safety standards. This would, in turn, create a safer operational framework while reducing the financial and societal consequences of preventable injuries and fatalities.

The Subcommittee recognized several challenges to implementing this recommendation. Specifically, they acknowledged the cost of either retrofitting aircraft to meet these requirements or purchasing compliant aircraft, which could disrupt air ambulance operations and affect service reliability. They also noted that taking aircraft out of service for upgrades could further impact operations. Additionally, industry resistance due to cost concerns could delay compliance. Finally, the Subcommittee expressed concern that enforcement would require coordination among Congress, the FAA, and stakeholders, potentially leading to complex processes and oversight challenges.

Committee Discussion FS-6
Flight Safety Subcommittee Chair
AAQPS Committee Members

Mr. Judge stated his strong support for recommendations to improve crash survivability. While there has been significant work to improve crash resistance, gaps remain. The FAA has a helicopter occupant safety toolkit on their website which highlights which aircraft are compliant but does not provide complete information on which features are available to operators. Adopting this recommendation would represent patients who do not have a choice of carrier and need to trust they are being transported in a fully equipped vehicle.

Voting FS-6
Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation FS-6 was adopted by the Committee.

Voting Member	FS-6
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes

Voting Member	FS-6
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 1** **Not Present: 1**

Flight Safety Subcommittee: Language Update and Review

Background and Proposal to Update Report Language
Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed a request made during the Committee meeting held on May 8, 2025, for language clarifying whether each recommendation applies to both helicopter and fixed-wing air ambulances or one type of aircraft. Mr. Quisling also reviewed the clarifying language proposed by the Subcommittee for inclusion in the Report to Congress.

Proposed Language for the Report to Congress:

- **Report Introduction**: "*Throughout this report and in individual recommendations, air ambulance refers to both fixed-wing and helicopter aircraft unless otherwise specified*."
- **For Recommendation FS-3**, the recommendation specifies "helicopter air ambulance." In the Report, include that the problem statement for this recommendation is *"focused on helicopter air ambulance, but fixed-wing aircraft will also be impacted by UAS and airspace congestion*."
- **For Recommendation FS-4**, the recommendation specifies "air ambulance helicopters." The report should note *"although this recommendation focuses on air ambulance helicopters, the Committee also recommends exploring opportunities to support new technology for fixed-wing air ambulances*."
- **For Recommendation FS-5,** the recommendation refers to "advanced aircraft systems" but does not refer to air ambulances at all. In the Report, include language that notes *"this recommendation impacts both fixed-wing and helicopter air ambulances."*

Mr. Quisling stated the Flight Safety Subcommittee reviewed the language of all the recommendations to determine whether clarification was needed regarding vehicle type. The Subcommittee concluded that the first two recommendations (Recommendations 5 and 6) were already clear with regards to vehicle type and that it would be appropriate to add clarifying language to the Report to Congress.

Committee Discussion on Proposed Language for the Report to Congress
Flight Safety Subcommittee Chair
AAQPS Committee Members

Several Committee members requested clarification of how this language would affect the recommendations that have been previously approved by the Committee. Mr. Quisling clarified the first item "Throughout this report and in individual recommendations, air ambulance refers to both fixed-wing and helicopter aircraft unless otherwise specified" would be included in the introduction to the Report to Congress and the other sentences would be updated in the report's background section for those individual recommendations.

Voting on Proposed Language for the Report to Congress
Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. The language proposed for inclusion in the Report to Congress was adopted by the Committee.

Voting Member	Report Language
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Yes
Mr. Richey	Yes
Vote Count	**Yes: 13** **No: 0** **Abstain: 0** **Not Present: 1**

Review of Flight Safety Recommendations Adopted May 8, 2025
Jason Quisling, SVP Flight Operations and Aircom, Air Methods, Flight Safety Subcommittee Chair

Mr. Quisling reviewed the voting results from recommendations voted on and adopted during the Committee meeting held on May 8, 2025.

- **Recommendation #FS-1:** Enhance Weather Reporting and Infrastructure in Non-Terminal Areas
    - Voting Results: 12 Yes; 0 No; 2 Abstain
- **Recommendation #FS-2:** Modernize Helipad Data, Infrastructure, and Safety Standards
    - Voting Results: 11 Yes; 0 No; 3 Abstain

- **Recommendation #FS-3:** Improve Low-Altitude IFR infrastructure
    - Voting Results: 12 Yes; 0 No; 2 Abstain
    - Verbal Confirmation of Vote: Mark Gamber
- **Recommendation #FS-4:** Enhance Safety and Technology for Single-Pilot Operations
    - Voting Results: 11 Yes; 0 No; 3 Abstain
    - Verbal Confirmation of Vote: Paul Julander, Mark Gamber
- **Recommendation #FS-5:** Streamline Certification and Expedite Approval Pathways for Air Ambulance Technologies and Medical Equipment
    - Voting Results: 13 Yes; 0 No; 1 Abstain
    - Verbal Confirmation of Vote: Paul Julander, Mark Gamber

Clinical Standards Subcommittee: Statutory Overview

Background
Keith A. McMinn, Director, Life Lion, Penn State Health Milton S. Hershey Medical Center, Clinical Standards Subcommittee Co-chair

Mr. McMinn began with a review of the Clinical Standards Subcommittee's charge and the process the Subcommittee used to develop recommendations for the following three topic areas outlined under the AAQPS Committee's statutory mandate:

- Qualifications of different clinical capability levels and tiering of such levels;
- Patient safety and quality standards and;
- Clinical triage criteria for air ambulances

He noted the Subcommittee began by articulating the most critical challenges facing the industry in these areas. The five problem statements developed by the Clinical Standards Subcommittee included the following topics:

- Claim denials related to medical necessity
- Market availability of the appropriate clinical capabilities
- Lack of minimum clinical national standards
- Promoting a just culture framework for patient safety
- Availability of follow-up patient clinical information to inform quality improvement

As part of the process for developing recommendations to address each problem statement, the Subcommittee reviewed the recommendations of the Advisory Committee on Air Ambulance Patient Billing (AAPB) and determined which Clinical Standards problem statements might be addressed (in whole or in part) by the AAPB recommendations. Finally, the Subcommittee focused its remaining time performing options analysis and developing new recommendations for the remaining problem statements, to address existing gaps. While these were reviewed during the May 8 AAQPS Committee Meeting, the Subcommittee Chairs devoted additional time in this meeting to

explaining why the Subcommittee chose these problem statements and associated recommendations to address the questions in the statute.

The key issue identified for clinical triage criteria was claim denials for medical necessity, which can discourage providers from ordering medically necessary air transport. The AAPB offered a recommendation that focused on the process for medical necessary air transport, presuming a physician's order for air transport is medically necessary under certain conditions rather than defining specific clinical criteria. This approach is favored due to the complexity of such decisions, which require clinical operational judgement and cannot be standardized across communities. The recommendation primarily addresses out-of-network claim denials, which are a significant concern and have a clear potential federal mechanism for resolution. The Subcommittee did not identify a federal mechanism of action to address in-network claim denials and invited the Committee's input on this issue.

For clinical capability levels, the Subcommittee focused on two problem statements. The first of these problem statements, related to market availability of appropriate clinical capabilities, had two outstanding recommendations from AAPB that the Clinical Standards Subcommittee noted, if implemented, would make important improvements and collect critical data to support future policy refinement in the future. The first of these two recommendations is related to the adequacy of Medicare reimbursement, and the latter is related to data collection which would be critical to better understanding existing gaps in capabilities and informing the reimbursement adequacy study. The Subcommittee endorsed the existing AAPB recommendations and urged that Congress and HHS explore differentiated reimbursement for specialty care. Inadequate reimbursement is a major barrier to providing specialty clinical services, as the flat transport fee does not cover the higher costs of the necessary equipment, specialty staff, and training required to treat more complex and specialty populations. To address this, the Subcommittee recommended that HHS consider implementing add-on payments, modifier codes, and/or procedure codes to ensure clarity and efficiency in claims processing while incentivizing and covering the costs of intensive transports.

The statutory mandate specifically covered levels or tiering of capabilities. The Subcommittee discussed this in detail and felt strongly that tiering was not the most practical way to characterize air ambulance services and capabilities. The Subcommittee agreed with the intent behind tiering, which is to recognize there are greater expenses and expertise associated with more complex clinical care and being prepared 24/7 to serve a variety of specialty populations and recommended an alternative approach to categorizing clinical capabilities for purposes of reimbursement.

The next problem statement under clinical capabilities is related to minimum national standards. The first recommendation associated with this problem statement was adopted by the Committee in the May 8 meeting; the second recommendation was discussed in more detail later in this meeting.

Finally, the Subcommittee had two problem statements and associated recommendations addressing patient safety and quality standards, the last category in the statute. These were discussed in detail in the May 8 meeting. One was around promoting a just culture framework for patient safety, which serves as a foundation for a wide variety of risk management and quality

improvement activities; the other around improving access to patient clinical data in order to enable quality improvement activities.

Discussion
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Commissioner Grace Arnold requested clarification regarding the AAPB recommendations selected by the Subcommittee and its decision-making process. Mr. McMinn explained that time has been allocated later in the meeting to discuss the AAPB recommendations in greater detail. Mr. Kolbet further explained that the Subcommittee tried to strike a balance between promoting more standardization across the industry while also recognizing that one-size-fits-all solutions were likely to have unintended consequences due to the diversity of communities and geography served by air medical.

Dr. Hinckley requested clarification regarding the Subcommittee's stance on tiering. Mr. McMinn noted that the Subcommittee did not recommend tiering. While the Subcommittee agreed with the intent behind tiering, it ultimately determined implementing such a structure would be extremely difficult to operationalize and likely result in unintended consequences.

Mr. Kolbet referenced the May 8 meeting, during which the Committee voted to recommend designating air ambulance operators as a Medicare provider type – the Subcommittee noted it was important to develop and implement a national standard baseline as a first step. For more complex capabilities, the complexity of care and populations were better characterized using modifier codes rather than tiers. This approach would ensure that all providers are appropriately recognized, reimbursed, and equipped to meet local area needs.

Commissioner Arnold asked about the process, specifically noting the recommendation's narrow focus on Medicare may not yield sufficient data on cross-subsidization. She asked where the appropriate place is to raise the issue of data collection. Mr. Kolbet explained the recommendation stems from existing legislation, and while some of the recommendations focus on Medicare, Medicare was an important reference point for all payers. Commissioner Arnold raised the possibility of using a tri-agency process to address these concerns. Mr. Kolbet noted the recommendation focused on a cost study and did not address reimbursement.

Commissioner Arnold raised a potential issue with the recommendation to incorporate medical necessity into the IDR process, noting the IDR manual indicates that medical necessity is not part of the IDR process. The recommendation proposed a presumption of medically necessary through the IDR process, but the IDR process is designed to address cost, not medical necessity.

Mr. Richey proposed deferring further discussion until the portion of the meeting focused on individual AAPB recommendations.

Clinical Standards Subcommittee: AAPB Recommendations

Background on the Advisory Committee on Air Ambulance Patient Billing
Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Mr. Kolbet provided an overview of the Clinical Standards Subcommittee's process in evaluating potential solutions to the identified problem statements. The Subcommittee reviewed ongoing federal initiatives and recommendations from relevant federal advisory committees, with particular attention to avoiding duplication of recent efforts by the Air Ambulance and Patient Billing Advisory Committee (AAPB), which issued a Report to Congress in March 2022.

The Subcommittee recommended the Committee's Report to Congress include an explicit endorsement of three AAPB recommendations. Endorsing these recommendations would allow for their full implementation and observed impact. The three AAPB recommendations correspond to two of the Subcommittee's problem statements. Recommendations CS-A, CS-B, and CS-D relate to medical necessity determinations, the adequacy of Medicare reimbursement, and the collection and analysis of air ambulance industry data to inform future policy and reimbursement discussions, respectively.

While the May 8 meeting materials included Recommendation CS-C regarding the Airline Deregulation Act (ADA) preemption of state authority, the Subcommittee, in consultation with the Committee Chair, elected not to advance that recommendation for Committee discussion. The Subcommittee determined the other recommendations under consideration were better positioned to achieve the intended outcome of Recommendation CS-C and supported prioritizing discussion of the most critical topics within the available meeting time.

Overview of Recommendation CS-A: Reduce claim denials for medical necessity
Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Mr. Kolbet reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Clinical Standards Subcommittee:

Problem statement:
Claims can be denied due to medical necessity based on patient information collected after the transport or with lack of context regarding geography and available resources, even though it met triage standards (scene calls) or was certified by physician for air transport (interfacility transport) at the time of call.

Goal: Reduce claim denials for medical necessity.

- **Recommendation #CS-A**: Congress should direct HHS to implement the following AAPB recommendation clarifying that there should be a "rebuttable presumption" in the No Surprises Act Independent Dispute Resolution (IDR) process that the air ambulance service was medically necessary for purposes of adjudicating payment disputes for out of network services.
- **AAPB recommendation #12:** The AAPB recommends that HHS should issue a regulation addressing medical necessity within the IDR process. Specifically, within the IDR process, there should be a rebuttable presumption that the air ambulance service was medically necessary, but an insurer can overcome that presumption by first presenting evidence that either the third-party first responder/medical professional who requested the transport was

not a neutral third party, or that the air ambulance provider did not act in good faith. (See Chapter 5, page 42)

Mr. Kolbet described the phenomenon commonly referred to as the "Monday morning quarterback," in which claims can be denied on the basis of medical necessity using information available after the encounter – information not available at the time a decision was made that transport was medically necessary. This issue can pose significant challenges not only to the financial viability of the air ambulance service but more importantly may deter a referring provider from ordering medically indicated air ambulance transport due to fear of catastrophic medical bills for the patient.

The No Surprises Act (NSA) created an IDR process, providing a mechanism for providers and insurers to resolve certain billing disputes. The AAPB Committee recommended if a physician certified the patient for air transport at the time of the call and the claim was later denied on grounds of medical necessity, the IDR process should include a "rebuttable presumption" of medical necessity. This would shift the burden of proof on the insurer, requiring them to demonstrate transport was not medically necessary. The Subcommittee endorsed that AAPB recommendation.

The Subcommittee also added a nuance beyond the AAPB Committee's Recommendation 12. After reviewing the AAPB Committee's original recommendation, HHS did not implement the recommendation because HHS determined the recommendation was not within their statutory authority to implement. Therefore, the Subcommittee recommended Congress enact the necessary legislation for the AAPB Committee's recommendation to be implemented.

The Subcommittee recognized the issue of claim denials was not limited to out-of-network claims, but these claims did represent a substantial proportion of the instances where the field encountered these issues. There was a clear federal mechanism of action authorized under the NSA and a specific recommendation from the AAPB Committee on this topic. The Subcommittee suggested it might be helpful to explore a recommendation around in-network medical necessity denials, but this would require a separate analysis to determine what would be the federal mechanism of action, given the NSA would not apply in those cases.

Discussion CS-A
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Mr. Judge clarified the Congress' charge was to develop triage criteria, but the AABP Committee's recommendation addressed a separate issue related to the post-transport decisions and payment disputes. Post-transport denial of triage decisions undermines the triage process. While the AAPB recommendation included an important provision allowing insurers to challenge presumptions with evidence, the recommendation conflated triage with payment issues and required modification. Agreeing with Mr. Judge, Mr. Quisling was supportive of including language related to increasing patient access to air ambulance transport.

Mr. Clayton emphasized the value of decentralized decision-making over complex national rules. Creating a national triage rule for all physicians and EMS providers would be overly complicated.

Instead, he suggested relying on physician and first responder expertise, which was the intent behind establishing a "rebuttable presumption" of medical necessity.

Commissioner Arnold noted the importance of addressing patient complaints and emphasized that the IDR process was not designed to handle medical necessity issues – there are different mechanisms for resolving disputes over medical necessity. Commissioner Arnold stated the courts had struck down the concept of a "rebuttable presumption." She described established mechanisms for disputing medical necessity and raised concerns that the recommendation, by presuming medical necessity regardless of the facts, complicated that process. Placing medical necessity discussions into a cost-focused IDR process created a misalignment and undermined the intent of IDR. Commissioner Arnold proposed modifying the recommendation's focus on developing guidelines for triaging through an HHS advisory group. The guidelines would provide a framework for state regulators to reference with addressing medical necessity disputes or enforcing action on insurers, making the recommendation more actionable and aligned with existing processes. Mr. Houser agreed with both Mr. Clayton's and Commissioner Arnold's comments.

Mr. Quisling requested clarification around triage and ensuring alignment with respect to the Committee's mandate, expressing his concern that the recommendation seemed to be a billing issue and he was unsure of the connection to patient safety and quality. Mr. Kolbet explained that there are situations where providers hesitate to request medically indicated air medical services due to concerns about patients facing large bills; this can result in a "chilling effect" where a patient does not receive medically indicated air medical services, which undermines patient safety and quality. Mr. Kolbet also highlighted how rigid triage criteria can harm air ambulance providers, citing cases like abdominal aortic aneurysms, where stable patients are often denied medical necessity due to being considered "stable" despite requiring urgent transport to treat a medical emergency before the patient destabilizes. He recommended that triage criteria should be flexible, allowing EMS providers to make decisions based on local resources, assessments, and state direction, as the appropriateness of air transport can depend on all of these factors in addition to the clinical condition of the individual patient. Mr. Kolbet described the challenge of triage criteria being too specific for some areas based on geography if the specific triage criteria cannot be met. Dr. Pritzker agreed with Commissioner Arnold and Mr. Kolbet's comments. He also raised a concern about the last sentence in the recommendation, referring to situations in which the party who "requested transport was not a neutral 3rd party or that the air ambulance provider did not act in good faith." He noted the air ambulance provider generally responds to a sending facility's request to transfer the patient, rather than making an independent determination of medical necessity, so it is unclear how this relates to the original medical necessity determination of the requesting party.

Mr. Judge addressed concerns regarding the triage process, citing an example where air ambulance companies, through membership programs, had fire departments call them, potentially leading to overuse or misaligned use of air medical transport. This issue was tied to the triage process and the subsequent discounting of good-faith triage decisions, which can negatively impact access to care.

Mr. Judge highlighted the challenge of establishing a national standard due to varying criteria among third-party payors but pointed out that Medicare provided a national framework through Section 415 of the Medicare Modernization Act of 2003. This framework outlined medically necessary transport criteria, including qualifications for callers and circumstances based on

geography, rurality, and hospital systems. He recommended leveraging Medicare's established guidelines as a basis for addressing triage-related issues. Mr. Judge referenced existing resources, including position statements from the American College of Emergency Physicians (ACEP) and National Association of EMS Physicians (NAEMSP), as well as validated national triage scoring mechanisms for trauma and pediatrics, which could inform the development of language for recommendations. He proposed removing the IDR process from the discussion and supported the inclusion of a rebuttable presumption, provided it aligned with Medicare's provisions and allowed triage decisions to be discounted in cases of lack of good faith or other compromising circumstances. Mr. Judge recommended refining the language of the recommendation to incorporate Medicare's established standards and validated triage mechanisms while addressing concerns about misuse and post-transport discounting of triage decisions and shared a proposed revision to the recommendation for consideration:

- "Congress should direct HHS to implement the following AAPB recommendation clarifying that there should be a "rebuttable presumption" that the air ambulance service was medically necessary, if consistent with provisions of Section 415 of the Medicare Modernization Action of 2003, but an insurer can overcome that presumption by presenting evidence that either the third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith."

Dr. Hinckley acknowledged the complexity of developing triage guidelines, drawing on his diverse experiences as a provider in various roles within the air ambulance system. While recognizing the challenges, he agreed with Mr. Judge that creating a universal triage guideline was feasible. Dr. Hinckley expressed concerns about presuming that all air ambulance use is appropriate, noting instances where its use may not be justified. Such misuse can negatively impact patients by diverting resources away from those who may need air transport more urgently. He emphasized the importance of ensuring air ambulances are utilized appropriately to optimize patient outcomes and resource availability.

Commissioner Arnold questioned whether referencing the Medicare Modernization Act as a basis for triage standards might exclude non-Medicare populations, such as children or adults who do not fit the Medicare demographic and suggested adopting a neutral approach to establish a national triage standard for medical necessity determinations, ensuring inclusivity across all patient groups.

Commissioner Arnold highlighted the potential cost implications of a rebuttable presumption, noting while it may ensure insurance coverage for necessary services, it could also increase insurance premiums, potentially making coverage unaffordable. Lack of insurance could lead to broader patient harm and negatively impact the air ambulance industry and emphasized the importance of balancing patient access to necessary services with affordability and sustainability in the system.

Mr. Judge noted that Medicare's guidelines provide a broad framework for deemed medical necessity, indicating it focuses on who is qualified to request air transport and the various circumstances in which it might be indicated; the guidelines are broad and incorporate considerations such as state protocols. Mr. Kolbet supported the proposed language, noting it

effectively avoids references to diagnosis, clinical conditions, and mechanisms. He expressed concerns about the language ensuring sufficient accountability from insurers, highlighting that as a key question.

Acknowledging the issue's complexity, Mr. Judge noted the importance of ensuring triage decisions were made by qualified first responders operating under physician-approved protocols and the need to balance these decisions while avoiding excessive use of air transport, as such decisions have financial implications. The goal was to ensure the right patient received appropriate care at the right facility, with a focus on access, qualifications, and deemed medical necessity, accounting for diverse geographic and situational factors. He recommended flexibility in refining the language, noting it should remain broad and not tied to specific conditions.

Mr. Richey proposed that the Committee review the revised recommendation language proposed by Mr. Judge as the new version of the recommendation up for the Committee's consideration.

Mr. Kolbet posed a question related to appropriate utilization of a helicopter request and the likelihood of cancelling the transport after it has been requested by a provider. Such decisions were typically based on factors like availability and locality of ambulances, suggesting the need for consideration of these realities.

Dr. Pritzker asked if the recommendation's focus was fixed-wing or rotary-wing or both. Mr. Kolbet noted the recommendation was primarily for rotary wing, but it could include fixed wing, noting a Subcommittee member would speak later in the meeting about the differences in how air medical was operationalized in Alaska. Mr. Judge agreed the recommendation could include both, but given that the focus is on emergency transport, emergency scene transports were generally done by rotary wing transports. He clarified that focus was not scheduled transports which were often done by fixed-wing aircraft. Dr. Pritzker expressed concern about primarily focusing on rotor-wing transports since this would also be applied to fixed-wing transports.

Mr. Kolbet requested clarification on whether the onus would be on the air medical provider to provide documentation supporting medical necessity, which he noted puts the air medical provider in the position of justifying the transport when generally the decision to transport was made by a different party. That other party's information would not typically accompany the disputed bill from the air medical provider. Dr. Pritzker noted that medical necessity disputes would likely need to bring in information not available from the air medical provider, such as a police report with the site and circumstances of an accident.

Commissioner Arnold emphasized the distinction between the price-focused IDR process and a potential alternative process, such as state medical necessity determinations, which could allow for broader inquiries and additional documentation beyond price concerns. While the bill might not have all information relevant to supporting a medical necessity claim, there are ways to get that information. Mr. Kolbet noted that created administrative burden for the air medical provider and delayed reimbursement. Mr. Richey clarified air ambulance service must submit all information with a claim and when an air ambulance service submitted the bill, oftentimes that documentation was not available at the time of bill submission, so it is done on the backend. Mr. Richey suggested removing references to the IDR in the recommendation.

Mr. Judge supported keeping the AAPB recommendation in the Committee's recommendation as a reference. Mr. Kolbet agreed with Mr. Judge. Dr. Pritzker asked if the Committee had moved away from the original AAPB recommendation with the removal of the IDR references. Mr. Wright noted the specific reason HHS could not implement the original AAPB recommendation was unknown. Commissioner Arnold noted HHS's inability to implement the AAPB recommendation could be that it was not within the IDR process and CMS had indicated that they did not have statutory authority to include it in that process, highlighting two lost court cases regarding rebuttable presumption.

Ms. Haugen noted the need for inclusivity for rural and frontier communities related to medical necessity and documentation. Mr. Judge confirmed the Medicare manual included special provisions that may exist for rural air ambulance services.

Dr. Gamber sought clarification from Mr. Judge and Commissioner Arnold related to IDR and why they viewed this as a payment rather than a clinical issue. Commissioner Arnold highlighted that the IDR process excluded considerations of medical necessity, focusing on cost. She provided an example in Minnesota where a patient denied coverage due to medical necessity would undergo a multi-step appeals process including internally with their insurer and then externally with the state department. She noted the IDR process addressed financial disputes without evaluating medical necessity. Mr. Kolbet countered that clinical factors do still play a significant role in the IDR process even after a bill is declared medically necessary, as this can affect reimbursement levels for some payors. Commissioner Arnold emphasized the focus for IDR was on reimbursing clinical services, assessing costs at a detailed, line-item level.

Mr. Kolbet explained readiness costs, such as carrying supplies like blood, existed regardless of whether they were used for a specific patient. However, those costs were not accounted for as a reimbursable line item. Mr. Clayton explained the IDR process required extensive documentation to justify clinical care, leading to determinations. Smaller programs experienced challenges as insurers, after losing in IDR, increasingly issued medical denials and shifted the burden to the patient. That process created hesitation among providers to utilize certain services due to the risk of denial, ultimately impacting patient care.

Commissioner Arnold requested clarification on whether the rebuttable presumption, a generic standard often used by Medicare, applied outside the IDR process or if it was still part of the IDR framework. Mr. Judge explained that the proposed recommendation would essentially take the established definition of medical necessity (and how transports are deemed medically necessary) as described in section 415 of the Medicare Modernization Act and give it a stronger stance by establishing it is a rebuttable presumption; this would be independent of the IDR process. Dr. Pritzker asked if the revised Committee recommendation diverged from the AAPB recommendation, which references the IDR process. Mr. Judge, speaking from his experience serving on the AAPB advisory committee, confirmed the Committee's revised recommendation could still appropriately reference AAPB recommendation 12, and the AAQPS Committee's revised language honored the intent behind the original AAPB recommendation – the intent being to focus more broadly on establishing a rebuttable presumption of medical necessity rather than focusing specifically on the IDR process.

Ms. Haugen suggested ensuring the language was clear for the reader and covered geographical and resource deficient areas. The Committee's revised recommendation had a heavy emphasis on

clinical circumstances, and it was unclear if the reader would understand the intent of section 415 of the Medicare Modernization Act. Mr. Judge clarified several groups, including CMS, NAEMSP, and ACEP, have addressed geographical areas. If the geographic circumstance influenced the clinical circumstance, it was a clinical circumstance. If the resource influenced the clinical circumstance, it was a clinical circumstance. Dr. Pritzker noted as a payor, geographical challenges are a clinical circumstance. Ms. Haugen requested clarification in the final report language for the reader.

Commissioner Arnold agreed with Ms. Haugen's proposal to add language to the report and requested clarifying language to preserve existing state authority and ensure it did not override state medical necessity determinations. Mr. Judge noted medical necessity was determined based on a patient's condition and specific circumstances, with section 415 explicitly referencing state protocols. Section 415 highlighted physicians adhering to state protocols define medical necessity, which was incorporated into the Medicare framework. Commissioner Arnold requested the meeting management team add additional context around this discussion in the report.

Mr. Richey asked if there were any further edits to the language before moving forward with a vote. The Committee made the following edits to the recommendation:

- Mr. Judge recommended adding, "emergency" in front of air ambulance service was medically necessary. Commissioner Arnold agreed with this edit.
- Dr. Pritzker raised concerns related to the phrase, "requested transport was not a neutral third party or that the air ambulance provider did not act in good faith." Mr. Judge clarified including the language, "consistent with section 415 of the Medicare Modernization Act," addresses Dr. Pritzker's comments related to clinical documentation known at the time of transport. This would suffice in explaining why it was medically necessary to move by air. Dr. Pritzker questioned if that would be clear to the end user or if more clarity was needed. He suggested, "documentation at time of transport supported medical necessity for transport." Mr. Judge noted that he agreed if it helped to clarify the language.
- Mr. Houser agreed with the updated language to include, "did not support medical necessity," as it related to insurer denying the claim.
- Mr. Reckert suggested changing "Congress should direct HHS to" to "Congress should implement" as a clearer way of indicating the relevant actor. Mr. Quisling added that the language should include the word, "mandate," rather than implementation. Mr. Judge agreed that this should be, "mandate implementation."
- Mr. Judge noted the removal of the word, "documentation," since there was no documentation at the time. Mr. Richey agreed with that removal stating that providers do not chart in a consistent way.
- Ms. Haugen reminded the Committee about the frontier and rural areas and suggested the inclusion of, "and/or," to provide inclusivity. Mr. Richey explained the recommendation already captures that and offered to expand upon that in the report.
- Dr. Pritzker noted that, "first presenting" and "first" were superfluous and recommended removing the initial, "first."
- Commissioner Arnold and Mr. Houser had no further edits to the language.

Voting CS-A
Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey reviewed Recommendation CS-A as amended by the Committee.

- **Recommendation #CS-A**: Congress should mandate implementation of the following AAPB recommendation clarifying that there should be a "rebuttable presumption" that an emergency air ambulance service was medically necessary, if consistent with provisions of Section 415 of the Medicare Modernization Act of 2003, but an insurer can overcome that presumption by presenting evidence that clinical circumstances known at time of transport did not support medical necessity for the transport, third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith.
- **AAPB recommendation #12:** The AAPB recommends that HHS should issue a regulation addressing medical necessity within the IDR process. Specifically, within the IDR process, there should be a rebuttable presumption that the air ambulance service was medically necessary, but an insurer can overcome that presumption by first presenting evidence that either the third-party first responder/medical professional who requested the transport was not a neutral third party, or that the air ambulance provider did not act in good faith.

Mr. Richey facilitated the voting process. Recommendation CS-A as amended by the Committee was adopted by the Committee.

Voting Member	**CS-A**
Com. Arnold	Yes
Mr. Clark	Abstain
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Abstain
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 10** **No: 0** **Abstain: 3** **Not Present: 1**

Overview of Recommendation CS-B: Modernize Medicare payment approach to ensure payment adequacy for specialty care

Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Mr. Kolbet reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Clinical Standards Subcommittee:

Problem statement*:*
Clinical capabilities available may not be appropriately matched to the community (may have insufficient or excessive supply of specific clinical services).

Goal: Modernize Medicare payment approach to ensure payment adequacy for specialty care.

- **Recommendation #CS-B:** Congress should enact legislation to implement the following AAPB recommendation for HHS to evaluate the adequacy of Medicare reimbursement rates for air ambulance. This evaluation should specifically assess whether reimbursement should be differentiated for transports involving specialty care or more intensive procedures to ensure payment is adequate for the diversity of critical services provided in the air ambulance setting, and should consider use of add-on payments, modifier codes, and/or procedure codes commonly used across payors to ensure clarity and efficiency in claims processing. The evaluation should also assess adequacy of reimbursement for aviation operational and training costs in the context of current FAA requirements and advancements in best practices for flight safety.
- **AAPB recommendation #17:** The AAPB recommends that legislation be enacted to require HHS to: (i) study Medicare rates for air ambulance services; and (ii) if warranted, for HHS to take steps to increase the reimbursement rates for air ambulance services upon conclusion of the study. The Advisory Committee also recommends that the study should be based on actual cost data, with "cost" including (1) the definition of cost as set forth in the Balance Billing Subcommittee's recommendation; (2) cost elements set forth in Section 106 of the No Surprises Act; and (3) volume of transports.

Mr. Kolbet noted the financial challenges faced by air ambulance services due to high operational costs, the need for 24/7 readiness, and inadequate Medicare reimbursement that only covers transportation without accounting for advanced clinical capabilities. He described the limitations of available specialized care in communities impacting patient outcomes due to the lack of a financial incentive to offer those specialized clinical capabilities. AAPB Recommendation 17 tied to the Committee's statutory mandate as it included a recommendation for how to categorize clinical capabilities, and also because inadequate reimbursement could be a barrier to adequate availability of clinical capabilities.

The Subcommittee recommended endorsing the AAPB proposal for CMS to conduct a study on Medicare reimbursement suggesting that the study explore differentiated reimbursement for specialty care through add-on payments, modifier codes, or procedure codes, like those used in other critical care settings, to ensure fair compensation and incentivize advanced clinical capabilities. The Subcommittee specifically recommended the use of add-on payments and modifier and procedure codes to characterize and bill for clinical services, rather than a tiering-style approach to characterizing clinical capabilities as used for ground ambulance. The former approach more accurately characterized and enabled the diversity and complexity of clinical capabilities provided by air medical services.

Recommendation CS-B focused solely on Medicare reimbursement, as the Medicare program is the federal government's most direct tool to affect reimbursement, though changes to Medicare could indirectly impact other payors. The Subcommittee did not support a tiered approach to categorizing clinical capabilities due to complexity and potential unintended consequences, such

as reduced operator sustainability and increased disparities in access. Mr. Kolbet reminded the Committee that they voted in favor of a recommendation designating air ambulance as a Medicare provider type during the May 8 meeting, and the reimbursement study considered mechanisms to appropriately compensate for the services and capabilities provided.

Discussion CS-B
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Dr. Pritzker noted that endorsing Recommendation CS-B presumed HHS would conclude there was a need to increase reimbursement rates for air ambulance services rather than finding justification to decrease them following the study. Mr. Richey agreed with Dr. Pritzker.

Mr. Clayton noted the rates were established decades ago and questioned whether they were based on actual cost data. Mr. Judge clarified the Medicare reimbursement rates for air ambulances were originally established years ago in the fee schedule negotiations based on actual cost data from hospital-based, twin-engine helicopters, which did not reflect the broader industry. While air ambulances benefited from the initial fee schedule, annual updates have not kept up with inflation, leading to current rates that failed to cover the actual costs of operating air ambulances. While the NSA mandated a cost study to assess the adequacy of Medicare rates, its implementation had been delayed.

Mr. Reckert explained the importance of ensuring the Committee's recommendations were effectively targeted to ensure adoption. He asked a procedural question about how the Medicare fee schedule was established—whether through legislation by Congress or rulemaking by an executive agency like CMS or HHS. Mr. Reckert suggested if the fee schedule is set by legislation, directing the recommendation to Congress is appropriate. However, if it is determined through agency rulemaking or another process, it may be more efficient to recommend HHS evaluate the adequacy of Medicare reimbursement rates. This distinction was crucial for aligning the recommendation with the correct authority. Mr. Richey agreed and requested the Committee review the recommendation language to ensure its adequacy.

Mr. Reckert noted the circular nature of the recommendation and that the AAPB Committee previously made a similar recommendation to Congress, which has not yet been acted upon. He emphasized the importance of understanding how Medicare reimbursement rates were set and suggested directing the recommendation to the appropriate federal agency responsible for establishing those rates to ensure effectiveness.

Mr. Judge explained the Medicare ambulance fee schedule was established under the Balanced Budget Act, when Congress mandated CMS and HHS create a national fee schedule in 1997 which then went through a five-year rulemaking process. The fee schedule, first implemented in 2003, is updated annually, incorporating an inflation adjustment less 1 percent productivity factor. To change this process, Congress would need to instruct CMS and HHS to revisit the fee schedule, a step they have been reluctant to take due to its complexity and impact on all ambulance services, not just air ambulances.

Dr. Hinckley requested clarification from the Co-Chairs regarding the Subcommittee's definition of "specialty care." Mr. Kolbet explained this could include anything above and beyond whatever was determined the baseline cost of basic air ambulance transport.

Dr. Hinckley requested additional examples of what would meet specialty care similar to neonatal transport. Mr. McMinn listed examples discussed by the Subcommittee including pediatric intensive care and ECMO transport, which required team members with specialty clinical training. Mr. Richey provided additional examples like cardiac assistance devices, blood administration, and placing a central line that requires an additional CPT code that can be billed for the services or procedures that the provider performs. Mr. Clayton asked if evaluation of market impact was part of the scope for CMS when they changed things. Mr. Wright explained notice and comment rulemaking were used for annual updates but was unsure if CMS reviewed market impact when it first established rates.

The Committee made the following edits to the recommendation language:

- Commissioner Arnold requested the addition, "analysis of expected market-wide impacts of change to Medicare payment," to the AAPB recommendation. The meeting management team recommended not editing the AAPB Committee's recommendation and instead adding that language to the Subcommittee's recommendation.
- Commissioner Arnold recommended looking to the AAPB recommendation and leverage the language, "Congress directs HHS to."
- Mr. Reckert recommended simplifying the first sentence of the recommendation to state, "Congress should enact legislation to evaluate the adequacy of Medicare reimbursement rates for air ambulances." Since Medicare rates were set by statute, any changes would require legislative action, which would then task the federal agency with implementation.
- Mr. Houser suggested opening the recommendation with, "Consistent with the following AAPB recommendation". Commissioner Arnold agreed, as did Mr. Reckert. She recommended modifying a sentence to ensure it included evaluation of gaps in services not covered by Medicare, particularly pediatric services. Mr. Judge confirmed the language should read, "potential gaps in special services availability evaluation and evaluate the market wide impact." Dr. Pritzker added language should also include, "analysis of potential gaps and reimbursement for specialty services."

Voting CS-B
Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey reviewed Recommendation CS-B as amended by the Committee.

> **Recommendation #CS-B:** Consistent with the following AAPB recommendation, Congress should enact legislation to evaluate the adequacy of Medicare reimbursement rates for air ambulance. This evaluation should specifically assess whether reimbursement should be differentiated for transports involving specialty care or more intensive procedures to ensure payment is adequate for the diversity of critical services provided in the air ambulance setting, and should consider use of add-on payments, modifier codes, and/or procedure codes commonly used across payors to ensure clarity and efficiency in claims processing. The evaluation should also assess adequacy of reimbursement for aviation operational and training costs in the context of current FAA requirements and advancements in best practices for flight safety. The evaluation should also include analysis of potential gaps in

reimbursement for specialty services and market-wide impact of any changes to Medicare reimbursement rates.

- **AAPB recommendation #17:** The AAPB recommends that legislation be enacted to require HHS to: (i) study Medicare rates for air ambulance services; and (ii) if warranted, for HHS to take steps to increase the reimbursement rates for air ambulance services upon conclusion of the study. The Advisory Committee also recommends that the study should be based on actual cost data, with "cost" including (1) the definition of cost as set forth in the Balance Billing Subcommittee's recommendation; (2) cost elements set forth in Section 106 of the No Surprises Act; and (3) volume of transports.

Mr. Richey facilitated the voting process. Recommendation CS-B as amended by the Committee was adopted by the Committee.

Voting Member	CS-B
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 12** **No: 0** **Abstain: 1** **Not Present: 1**

Overview of Recommendation CS-D: Improve information on geographic availability of capabilities costs associated with providing various capabilities to inform future policy and reimbursement conversations

Kolby Kolbet, MSN, RN, FACHE, CMTE, FAASTN, Chief Innovation Officer, Life Link III, Clinical Standards Subcommittee Co-chair

Mr. Kolbet reviewed the problem statement, goal for addressing the problem statement, and recommendation proposed by the Clinical Standards Subcommittee:

Problem statement:

Clinical capabilities available may not be appropriately matched to the community (may have insufficient or excessive supply of specific clinical services).

Goal: Improve information on geographic availability of capabilities costs associated with providing various capabilities to inform future policy and reimbursement conversations.

- **Recommendation #CS-D:** HHS should implement the following AAPB recommendation regarding implementation of data collection requirements authorized under No Surprises Act (section 106) and subsequent Notice of Proposed Rulemaking (CMS-9907-P, Document Number 2021-19797, 86 FR 51730-51779), which would allow CMS to collect operational data on the air ambulance industry for two years and issue a report on the current state of the air ambulance industry.

- **AAPB recommendation #14:** The AAPB recommends that HHS and DOT collect data from air ambulance providers and suppliers regarding: (1) average cost per trip; (2) air ambulance base rates and patient-loaded statute mileage rates; (3) ancillary fees for specialty services; (4) reimbursement data aggregated by payor type and per transport, based on median rate and ZIP code, with data regarding private insurance further identified by provider type; (5) alternate revenue sources (e.g., subsidies or membership programs) broken down per transport for reporting purposes; (6) volume of transports, segregated by aircraft type (fixed wing and rotary wing) and takeoff ZIP code for government purposes, or for public use when aggregated with other data; (7) market share for air transport, obtained from the FAA certificate holder and identifying the certificate holder's parent company; and (8) market share for healthcare, by looking at the program type for the FAA certificate holder.

Mr. Kolbet provided background on the NSA, which authorized CMS to collect data on air ambulance operators for two years, analyze that data, and issue a report with findings. The AAPB Committee recommended that, in addition to the minimum data elements required by the NSA, CMS should collect specific additional data elements and include analysis of these in the report.

The analysis would be critical for informing reimbursement adequacy discussions by providing more transparency into the costs of providing 24/7 readiness for air ambulance and the challenges of covering those costs. This was a critical step to appropriately align financial incentives to provide the best care for each patient.

CMS issued a Notice of Proposed Rulemaking in 2021 to collect the data required under the NSA. That rule was not finalized. Since the proposed rule preceded the issuance of the AAPB report, CMS may wish to revisit the proposed rule considering AAPB's recommendation and any recommendation that comes from the Committee.

Discussion CS-D
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Commissioner Arnold asked whether the Subcommittee considered recommending the Medicare Payment Advisory Commission (MedPAC), rather than HHS, implement the recommended data collection. Mr. Kolbet responded the Subcommittee had not considered identifying MedPAC in the recommendation. Mr. McMinn added the Subcommittee had discussed the existing precedent for collecting similar information within HHS, specifically through the Medicare Ground Ambulance Data Collection System (GADCS).

Voting CS-D

Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey facilitated the voting process. Recommendation CS-D was adopted by the Committee.

Voting Member	CS-D
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Abstain
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	Yes
Mr. Houser	Yes
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 11** **No: 0** **Abstain: 2** **Not Present: 1**

Other Topics

Clinical Standards Subcommittee Co-Chairs

AAQPS Committee Members

Mr. Judge raised concerns that the Clinical Standards Subcommittee elected not to put forward Recommendation CS-C. He believed that the recommendation was critically important and should be on the Committee's agenda.

Mr. Richey shared the Subcommittee had considerable discussions after the May 8 meeting about Recommendation CS-C, including a consult with the FAA. He requested Mr. Reckert provide his perspective on Recommendation CS-C. Mr. Reckert said that there was concern about the wording of Recommendation CS-C and the FAA did not have authority to implement the recommendation as written. Mr. Reckert asked Mr. Jonathan Cross, a representative from the FAA's Office of the Chief Counsel, to provide input. Mr. Cross stated the Subcommittee made the decision to withdraw Recommendation CS-C and directed Committee members to the Subcommittee Chairs for additional information. Mr. Judge noted withdrawing a recommendation was the Committee's jurisdiction, not the Subcommittee's jurisdiction.

The Subcommittee still felt conflicting standards across state lines was a valid issue, and that ambiguity in how the ADA was interpreted by states was a challenge. However, Mr. Kolbet stated the Subcommittee ultimately felt Recommendation CS-C was not necessary given the Committee

adopted a recommendation to recognize air ambulances as a provider type in Medicare (Recommendation CS-1a), which began to address the challenge of standardization across state lines. Mr. Richey agreed with the Subcommittee and supported their decision not to put forward Recommendation CS-C.

Mr. Judge stated Recommendation CS-C did not mention the FAA, referring to the recommendation language proposed in the May 8 meeting. He further noted that the FAA did not have a role in evaluating the ADA but had field preemption to oversee aviation safety. Mr. Judge said the recommendation was about prices, routes, and services, not aviation safety, and the ADA had a major effect on economic conditions. In 2000, there were 377 air ambulances in the United States and about 400,000 transports. At the implementation of the fee schedule, there were 545 air ambulances and helicopters and about 400,000 patients. Today, there are about 400,000 patients and 1,315 helicopters – a large increase in vehicles without a corresponding increase in volume of patient transports. Mr. Judge noted that the ADA has had a dramatic effect on prices but did not believe there had been an increase in availability given the volume of patient transports has not changed. Mr. Judge stated the NSA included air ambulances because of the ADA, and Congress should evaluate the implications of the ADA.

Mr. Houser asked whether the decision to move air ambulances to provider status would correct any inconsistencies, as it related to clinical quality standards and reimbursement, which were two of the Committee's charges. Mr. Houser also asked whether evaluating the ADA would move in the direction of creating an opportunity for more inconsistency from state to state.

Mr. Judge clarified that the recommendation would evaluate the impact of the ADA but not necessarily change it. Mr. Judge recalled while not everyone was happy with the AAPB Committee's recommendation on evaluating the ADA, it was overwhelmingly supported and the state insurance commissioners testified in favor of the AABP recommendation. Any change to air medicine would have to be narrow and carefully considered.

Mr. Houser asked whether the move to provider status would account for the issues Mr. Judge just described, from the perspective of quality, safety, and reimbursement. Mr. Judge agreed moving to provider status answers the original question. During the first Committee meeting in December, the doctor from CMS noted that ambulance reimbursement from CMS was a transportation, not a clinical benefit. Mr. Judge also agreed that moving to provider status would improve all the issues already identified but noted it would not deal with the impact of the ADA and how the entire system was organized.

Commissioner Arnold stated provider status was Medicare only and flights reimbursed through Minnesota's state regulations would have a different ability to take action. Her colleagues, who oversaw safety and quality at the state level, similarly, only cover a portion of the market. While helpful, the move to provider status created a series of gaps. The evaluation would help to understand the gaps. That would likely mean there are still cases where there is not a recourse for patients or air ambulances that are unable to resolve a dispute. Commissioner Arnold asked if the ADA was the appropriate venue for addressing those gaps and noted that having that discussion would be helpful. She further noted that taking action in Medicare rarely solves all the downstream issues that can occur.

Mr. Houser asked Commissioner Arnold if she could share examples of gaps. Commissioner Arnold said Minnesota did not have the issues that other states have and was not aware of specific examples of gaps. Most of Minnesota's hospital systems sit on the board of Life Link, which does a lot of the state's transport. There were cases where there were either non-healthcare entities financing transport or specialty providers with subscription-based services. There could also be niche areas, for example mountain transports or subscriptions. The nexus of clinical quality and insurance can be complicated and different in every state and that markets that existed in one state may not exist elsewhere. Pediatric care may be another example where there was a gap, particularly in situations where there was no ability to have critical care and very sick pediatric patients are getting transported.

Mr. Houser appreciated both perspectives and asked the Committee to consider the risks and benefits of this discussion. If moving the Medicare provider status adjusts for the quality concerns that the Committee is charged with discussing, then that is a step forward. He recognized that with the ADA, it was not an option to clarify and that it was either a revision or guidance, and he was considering taking one step at a time. There was a natural alignment where the ADA related to aviation operations and Medicare provider status gave some oversight for quality and clinical capabilities, putting a natural segue and segregation to two things. Commissioner Arnold agreed splitting those two concepts was a step.

Dr. Hinckley noted if Mr. Judge's growth statistics over the past few decades were correct, then nobody can be as good as they used to be. Air ambulances could not take care of as many patients as they did 20 years ago. That would impact flight nurses, paramedics, pilots and patient safety. If the Committee believed the ADA partially affected that growth, it impacted safety and quality.

Mr. Kolbet added there was a significant amount of hospital closures and loss of services such as OB that air ambulances did not face in the past. Access to brick-and-mortar providers was becoming a significant issue, and since air ambulance helped to bridge those gaps in access by transporting patients longer distances to get the care they need, there was likely a push-pull relationship.

Mr. Richey suggested pausing the discussion to ensure the Committee had adequate time to cover the Subcommittee's last recommendation. He suggested returning to this discussion around Recommendation CS-C later in the meeting.

Clinical Standards Subcommittee: CS-1b Recommendation

Overview of Recommendation CS-1b: Establish Minimum National Clinical Standards
Keith A. McMinn, Director, Life Lion, Penn State Health Milton S. Hershey Medical Center, Clinical Standards Subcommittee Co-chair

Mr. McMinn reviewed the problem statement, goal for addressing the problem statement, and recommendations proposed by the Clinical Standards Subcommittee:

Problem statement*:* Variability in the equipment and clinical capabilities available on air ambulances can present a clinical risk to patient safety when the available equipment, personnel, and training are not adequately matched to the needs of the patient; this presents particular risks

for specialty populations and low frequency/high risk patients (e.g., neonatal/pediatric, high-risk OB, patients in rural areas).

Goal: Establish minimum national clinical standards

- **Recommendation #CS-1a** (approved by AAQPS at the May 8, 2025, meeting)**:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.

- **Recommendation CS-1b** (for discussion today)**:** Congress should pass legislation to require compulsory accreditation for Medicare air ambulance providers. The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process must include periodic reassessment of compliance and must include exceptions or waivers for operators in rural/frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes.

Mr. McMinn explained that the Committee discussed Recommendation 1b during the Committee meeting held on May 8 and deferred a decision or a vote until this meeting in order to gather more information to address questions raised by the Committee at the May 8 meeting.

Mr. McMinn stated when a provider requests an air ambulance, they should expect that air ambulance meets a minimum standard for equipment and personnel to support the patient. But since states regulate the scope of practice for EMS, there is significant variability in the minimum equipment and personnel required from state to state. When the equipment and personnel are not adequately matched to the needs of the patient, this presents a risk, particularly for specialty populations.

He explained the Subcommittee had two recommendations for this problem statement. The first was to establish air ambulance as a provider type in the Medicare program, with their own Conditions of Participation (CoPs). The Committee adopted this recommendation in the May 8 meeting.

The second, for discussion in this meeting, was to require compulsory accreditation for Medicare air ambulance providers, which would establish a more rigorous standard than the CoPs. Accreditation as discussed in the context of this recommendation would not necessarily look exactly the way it currently does today. CMS would approve accrediting organizations, and the standards each organization uses could meet different use cases, as long as they met CMS standards. Given the significant uptake of the existing accrediting organizations in the air ambulance industry, the Subcommittee expected those organizations would play a pivotal role in informing and implementing accreditation standards set by CMS. However, this recommendation was not about existing accrediting organizations per se, but rather establishing an accreditation requirement, which would likely include those organizations and could potentially include accreditation options that do not exist today.

Mr. McMinn reviewed relevant context before discussing the Subcommittee's options analysis. Currently, ambulance providers must demonstrate some basic requirements to be reimbursed for Medicare supplier claims, but these are very basic (for example, being equipped with a stretcher and "emergency medical supplies"), and they are not differentiated between air vs ground ambulance. Other types of Medicare providers are subject to certification requirements, known as CoPs, which includes minimum health and safety standards. These providers must be periodically certified by CMS to remain in the Medicare program. These certifications are conducted by state survey agencies or accreditation organizations approved by CMS. While these are somewhat more specific than the supplier requirements, they are very high-level. The Subcommittee provided links in the meeting slide deck to an example of CoPs for reference. In the May 8 meeting, the Committee approved the recommendation to establish air ambulance as a provider type with high-level CoPs like these.

Clinical aspects of air ambulance are regulated by the states, like other healthcare providers. However, this is complicated by the ADA, which has in some cases caused some ambiguity around what states can and cannot regulate with respect to clinical services. For this reason, the Subcommittee felt it was important to establish a national minimum standard to ensure a shared understanding across the industry and reduce the mismatch of requirements across state lines.

A large majority of air ambulance operators already participate in voluntary accreditation programs. There are accreditation standards in use today that are generally well respected across the industry, with processes in place to ensure these are regularly reviewed and updated with expert input. There is a strong foundation to build upon.

The Subcommittee considered four options:

1. Update existing Medicare supplier requirements for ambulance services.
2. Establish a new Medicare provider type.
3. Compulsory accreditation for air ambulances seeking reimbursement as Medicare suppliers of ambulance services.
4. Compulsory national accreditation for all air ambulance providers, regardless of Medicare participation.

Mr. McMinn explained the Subcommittee's final recommendation reflected options 2 and 3 and that he would focus on the third option today – compulsory accreditation for air ambulance providers participating in the Medicare program.

Mr. McMinn reviewed Recommendation CS-1a, which was adopted during the May 8 meeting, and its connection to Recommendation CS-1b. Establishing a new provider type with CoPs would come with some additional basic standards above what was required as a supplier, but these standards would still be very basic. However, it would establish a more robust process for assessing compliance and establishing air ambulances as a Medicare provider would likely be a platform for a number of other Subcommittee recommendations, such as implementing a quality program or requiring reporting of a patient safety structural measure (both recommendations that the Committee also adopted at the May 8 meeting).

Because CoPs would be very basic standards, and the Subcommittee believed there was a compelling need for more meaningful shared standards at a national level, the Subcommittee also

recommended requiring accreditation for providers participating in the Medicare program (Recommendation CS-1b). Under this process, CMS would approve accrediting organizations that meet certain minimum standards. This new accreditation requirement could leverage existing accreditation organizations, which would make the transition smooth for air ambulance providers already accredited.

Mr. McMinn also shared some challenges that would need to be addressed in standing up such a requirement. If the standard was too low, then the recommendation would add an administrative burden without meaningful improvement in safety and quality. If the standard was too high, the recommendation would risk putting operators out of business and reducing access. While the Subcommittee did not want to say that a lower standard of care was acceptable in some communities versus others, the reality was that there were parts of the country where it simply was not feasible to meet higher standards, and patients would be at risk of not being able to access transportation at all, which was not a desired outcome.

Operational Challenges in Frontier Areas
Todd McDowell, Director of EMS, State of Alaska

The Committee heard a presentation on Operational Challenges in Frontier Areas by Todd McDowell, Director of EMS, State of Alaska, which informed the Subcommittee's decision on Recommendation CS-1b.

Mr. McDowell shared with the Committee operational challenges air ambulances encounter in Alaska's frontier areas, and how these might make it difficult to comply with one-size-fits-all triage criteria, or accreditation requirements such as staffing minimums that are not feasible to implement in Alaska. Mr. McDowell noted Alaska is the largest U.S. state with less roads than Rhode Island and spans almost the entire country from the east to west coast. Alaska has a large population off the roads system and challenging transport times. For example, the closest Level 1 Trauma Center to Anchorage is 1,500 miles away, and depending on where a patient is in Alaska, their transport to a Level 1 Trauma Center can be up to 2,500 miles.

In the lower 48 states, most air medical services staff transports with a flight nurse and paramedic, but Alaska has bases that use a double paramedic staffing model. Some rural services rely on any available volunteer EMT, and those services may use non-pressurized aircraft, single engine aircraft, and sometimes a transporter of last resort (where an air medical service may not be able to get in to an area to pick up a patient, but another non-medical aircraft can get the patient out of the area and closer to the care they need).

Putting these services at risk does not improve patient care and instead decreases availability of medical resources in these communities. In some communities, there are no hospitals, and patients need to be transported out of clinics with very basic capabilities. Poor weather can trap critically ill patients into a small community clinic for days. Some communities have a community health aide with one year of primary care education and then utilize telemedicine with a doctor to provide care. Alaska has one specialty team (a neonate specialty team out of Alaska) whose availability depends on call volume. This creates situations where they have had the option of waiting up to 12 hours for a special transport team or sending a neonate with non-specialty transport teams.

Alaska operates mostly fixed- wing air ambulances and only has three rotor air ambulances. Air ambulances sometimes transport patients with a simple arm or ankle fracture; these patients would typically use ground ambulances in the lower 48 states. Due to the availability of ground ambulances in Alaska, many ground ambulances are staffed at the basic life support (BLS) level and can be hours from a hospital. When making a triage decision, the choice is often whether a patient is transported via a non-medical aircraft (such as Alaska Airlines) or air medical – unlike in the lower 48 states, where the choice is often between ground or air transport. Some communities are three to five hours away from the closest hospital by ground under good weather conditions, and these local volunteer ground ambulance services are often not willing or able to send volunteers on a 12-hour round trip transport. Many patients who would be transported by ground in the lower 48 states take air transport because of pure logistics.

Mr. McDowell emphasized areas facing these operational challenges may not be able to meet accreditation or triage standards and would need a waiver process or broad enough standards to fit these operational realities.

Discussion CS-1b
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Mr. McMinn noted Mr. McDowell offered the Subcommittee an important perspective on the operational realities of frontier areas, and as a result, Recommendation CS-1b included exceptions or waivers for air ambulances in rural or frontier areas, so that these providers would not be excluded from the Medicare program. Because the recommendation tied compulsory accreditation to Medicare provider status, rather than as a requirement to operate in the United States at all, it would be possible for some providers to forgo accreditation if they did not wish to be Medicare providers and were financially viable without Medicare reimbursement.

Ms. Frazer asked what criteria CMS would use to approve an accrediting agenda and whether CMS had a history of approving accreditations for hospitals. Mr. Wright shared CMS would first determine the standards the accrediting organization would have to meet. If there were existing Medicare standards, for example, then it would be incumbent on the accrediting organization to meet those standards. If there were not, then CMS would define those standards through public notice and comment rulemaking. Once those standards were established, CMS would hold an open call for any accrediting organization that believed they met or exceeded those standards to apply to CMS for approval.

Ms. Frazer noted she is confused about the time frame and raised concerns the Committee is voting on the recommendation without knowing how the process will work. Mr. Wright clarified the process would be the same, but the standards are not known yet. CMS had a well-established process for both determining accreditation standards and reviewing and approving the accreditation organizations for compliance with those standards. He deferred to Mr. Kolbet and Mr. McMinn to explain the intent of the recommendation.

Ms. Frazer noted the Subcommittee referenced Commission on Accreditation of Medical Transport Systems (CAMTS) and National Accreditation Alliance of Medical Transport Applications (NAAMTA) but not European Aero-Medical Institute (EURAMI). She is aware of three accrediting organizations

in the world. While EURAMI is not based in the United States, they do accredit services in the United States. Mr. Richey clarified part of the recommendation would be to establish it, and the steps Ms. Frazer was discussing would be part of the process initiated after the recommendation's adoption. Mr. Wright confirmed Mr. Richey was correct.

Mr. Clayton raised concerns about the recommendation's potential unintended consequences and asked how compulsory accreditation for air ambulances would impact smaller operators in rural communities with a need for air ambulance services. He also asked if there was a timeframe to receive accreditation and raised concerns about the time and resources that would be required to obtain that accreditation, noting that larger organizations would likely find this process easier to complete compared to smaller organizations. Mr. Clayton also asked whether large organizations would need to obtain accreditation for each base or site by site.

Regarding Mr. Clayton's question about obtaining accreditation for each base or site by site, Mr. Wright clarified accreditation was based on the unit of reimbursement (i.e. certification). For example, hospitals certified under one CMS compliance number could share one accrediting agreement. Accreditation was both a decision on the part of the operator and the unit of certification put in place.

Regarding Mr. Clayton's question about exemptions for operators facing specific geographic or operational challenges, Ms. Kianna Banks, a representative of CMS, noted CMS could incorporate exemptions as appropriate.

Regarding Mr. Clayton's question about timeframe, Mr. Wright explained that as part of the process of establishing the accreditation requirement, CMS would include a timeframe for those providers to work with and obtain approval from an accrediting organization, and an effective date for when providers would need to obtain accreditation.

Regarding Mr. Clayton's question about resources required to obtain accreditation (with cost being a potential barrier for smaller organizations), Mr. Wright noted CMS did not have the ability to prescribe or recommend specific costs to accrediting organizations. If a provider was not accredited, the state survey agency would survey that provider to determine whether the provider met the requirements.

Mr. Clayton asked whether there was a mechanism by which a new base could receive Medicare reimbursement funding prior to obtaining accreditation. It would be untenable for a new base to operate for two years without Medicare funding. Mr. Wright clarified a new base would not have to wait to get accredited. As they are building their base or starting operations, they would concurrently seek accreditation so that when they are ready to begin operations, their accreditation is in place and they can start billing Medicare.

Mr. Richey clarified if a hospital was already accredited by CMS through a joint commission or another accrediting body and they acquired another hospital, they would still be able to bill Medicare. If Mr. Clayton were to open another base and was already accredited, the new base would be covered under Life Flight Network as the biller. Mr. Wright confirmed Mr. Richey's understanding and noted it would depend on the unit of analysis and whether the unit of analysis was the corporation or a single base. He noted those details could be fleshed out in rulemaking.

Each single base could be accredited or the whole organization could be accredited and then any bases built within that organization would automatically fall under the organization's accreditation.

Mr. Clayton asked Ms. Frazer how Mr. Wright's explanation comports with CAMTS's accreditation process. Ms. Frazer explained CAMTS conducts a supplemental visit for new bases and confirms the new base has met all standards. CAMTS encountered problems when states created new accreditation programs: because CAMTS requires operators be in business for a year before receiving accreditation, this can be a challenge for timely accreditation of new and extra bases.

Mr. Clayton raised concerns about the recommendation's impact on new market entrants because they cannot start a business in the air ambulance industry without receiving Medicare funding immediately. Mr. Richey noted new entrants could be certified as part of a corporation such as Life Flight Network. Mr. Clayton agreed, noting new entrants would need to be affiliated with another organization and receive funding elsewhere.

Mr. Judge noted the recommendation was proposed by the Subcommittee on the premise of qualifications of different clinical capabilities and establishment of a national standard. The Committee already agreed to create the air ambulance provider type so that CoPs could then be developed for air ambulances, which would create a national minimum standard. With accreditation, the Subcommittee did not present state-imposed clinical requirements, and the ADA complicated the situation for air ambulances. CMS does not generally require accreditation in other settings; in settings which allow for accreditation, accreditation is voluntary but gives the provider "deemed status" with CMS to demonstrate compliance with CoPs (i.e., they do not need to go through a separate survey process from CMS state surveyors). Accreditation and external measurement of quality and safety performance were important. Mr. Judge emphasized deemed status, voluntary accreditation, and CoPs would establish a national minimum standard.

Mr. Clayton agreed with Mr. Judge on his point about CoPs but not the ADA and agreed establishing air ambulances as a provider type was a good step. Mr. Clayton expressed concern about voluntary accreditation.

Ms. Frazer added states requiring CAMTS accreditation did not perform inspections on organizations that had that accreditation (referred to as deemed status), similar to what Mr. Judge described for Medicare oversight in other clinical settings.

Mr. Quisling agreed with Mr. Judge's statements around CoPs and was hesitant to support having another government agency essentially create a new set of regulatory standards for an industry that already had voluntarily set up minimum standards to ensure quality. He emphasized this was more about ensuring minimum standard can be pulled in than in rewriting the book of how operators were accredited. Mr. Quisling cautioned the Committee against changing the ADA or current divisions between CMS, FAA, and other government organizations like the Department of Defense.

Dr. Hinckley asked Ms. Frazer if she supported the recommendation. Ms. Frazer stated that naming CAMTS specifically as one of the accrediting organizations would open up CAMTS to lawsuits. However, not naming a specific accrediting organization would also be a problem; there is no national standard for accrediting organizations. Ms. Frazer asked if CMS had criteria for whether a hospital accreditation was acceptable or not. Mr. Wright clarified any entity that wanted to become

an accrediting organization can. They must meet certain criteria including being national in scope and submit their standards to CMS. CMS evaluates those standards to ensure they meet or exceed Medicare's standards and determines whether the entity can survey to ensure compliance with those standards.

Ms. Frazer noted CAMTS developed its standards over 35 years and did not want an accrediting agency to be sued. She was not sure if naming the accrediting agency would make a difference in a lawsuit. Mr. Wright clarified CMS does not identify specific entities in its credential programs and CMS regulation do not refer to a specific accrediting organization.

Mr. Judge recommended Congress pass legislation to require CoPs for air ambulance providers and suggested the following recommendation language for the Committee's consideration:

- "Congress should pass legislation to require Conditions of Participant (CoPs) for air ambulance providers. Voluntary accreditation by CMS approved accrediting agencies should provide deemed status for meeting Medicare Conditions of Participation (CoPs). The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process to develop CoPs and accreditation standards must include periodic reassessment of compliance and must include exceptions or waivers for operators in frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes."

Mr. Judge noted voluntary accreditation by CMS approved accrediting agencies will provide deemed status for meeting CoPs. The process to develop CoPs and accreditation standards along with the Committee's language about periodic reassessment compliance would get to this a little better than compulsory accreditation. Mr. Houser agreed with Mr. Judge and his suggested language, noting accreditation was potentially duplicative of CoPs. Mr. Judge further noted it was important for the Committee to identify that any accreditation standard and the CoPs needed to think about the entire United States.

Mr. Clayton questioned whether the recommendation was needed at all, noting that making air ambulances a provider type with CoPs might be good enough. He was supportive of Mr. Judge's suggested language but raised concerns about unintended consequences the Committee had not thought of yet.

Mr. Judge asked Mr. Wright if moving from a supplier to a provider required CoPs. If so, Mr. Clayton's point about whether this recommendation is necessary was valid. If not, this additional piece, which set a national standard of CoPs, would be needed. Mr. Wright stated, and Ms. Banks confirmed, establishing air ambulances as a certified provider types under Medicare would include establishing CoPs. The Subcommittee Chairs also noted the recommendation adopted by the Committee in the May 8 meeting regarding establishing air ambulance as a Medicare provider type included a recommendation to establish CoPs, though it did not reference voluntary accreditation.

Mr. Kolbet asked Mr. Wright if the CoPs would be inclusive versus voluntary accreditation being comprehensive across the organization. Mr. Wright clarified for CoPs with a deeming option through accreditation, providers must meet those CoPs whether through the accrediting organization or the

state. The accrediting organization can have additional (complementary or tangential) standards beyond CoPs. CMS does not have a say in those additional standards. CMS confirms whether the accrediting organization's standards meet Medicare's basic standards. For example, the Joint Commission has reporting requirements, certain Centers of Excellence, and other programs they might give a separate accreditation for. Those additional requirements are beyond the Medicare CoPs; CMS does not oversee those requirements.

Mr. Richey asked whether Committee members preferred to vote on the Subcommittee's or Mr. Judge's suggested recommendation language. Ms. Frazer expressed support for the latter. Committee members suggested the following edits to Mr. Judge's proposed recommendation language:

- Mr. Judge suggested removing the first sentence.
- Dr. Hinckley suggested removing the word "rural."
- Mr. Houser suggested using existing CMS language for rural and frontier.
- Dr. Pritzker suggested deleting the word "frontier" because there may be urban areas with a shortage of specialists.
- Dr. Pritzker suggested deleting the word "voluntary" from "voluntary accreditation" because the recommendation to establish air ambulances as a provider type will include a process for developing CoPs and accreditation, including periodic assessment and exceptions or waivers for operators in areas where certain standards may not be feasible.

Mr. Quisling asked whether the process for establishing an air ambulance provider type would allow voluntary accreditation to occur organically, without the Committee trying to wordsmith Recommendation 1b. He suggested striking the recommendation because Recommendation 1a covered the intent of Recommendation 1b. Mr. Clayton was supportive of moving forward with a vote and noted he would vote against Recommendation 1b due to his concerns about unintended consequences. Mr. Judge agreed with Mr. Quisling and Mr. Clayton that Recommendation 1b may be moot. If air ambulances were a provider type and had CoPs, that process could potentially incorporate voluntary accreditation that provided deemed status, without making accreditation compulsory for all Medicare providers.

Voting CS-1b
Jeff Richey, RN, MHA, FACHE, Associate Administrator, Airlift Northwest, AAQPS Committee Chair

Mr. Richey reviewed Recommendation CS-1b as amended by the Committee.

- **Recommendation #CS-1b:** Voluntary accreditation by CMS approved accrediting agencies should provide deemed status for meeting Medicare Conditions of Participation (CoPs). The minimum standards assessed by the accrediting organization(s) should include specific standards for safe transport of specialty populations. The process to develop CoPs and accreditation standards must include periodic reassessment of compliance and must include exceptions or waivers for operators in frontier areas where certain standards may not be feasible to implement without creating barriers to access (e.g., due to shortage of specialists). Accreditation standards should be reassessed on a periodic basis, soliciting industry input on proposed changes.

Upon further discussion, Committee consensus appeared to be not in favor of the recommendation; therefore, Mr. Richey determined that the Committee would vote on whether to strike recommendation CS-1b as suggested by Mr. Quisling. Mr. Richey facilitated the voting process. The Committee voted in favor of striking Recommendation CS-1b as amended by the Committee.

Voting Member	Vote to Strike CS-1b
Com. Arnold	Yes
Mr. Clark	Yes
Mr. Clayton	Yes
Col. Coffee	Yes
Ms. Frazer	Yes
Dr. Gamber	Yes
Dr. Hinckley	No
Mr. Houser	Abstain
Mr. Judge	Yes
Mr. Julander	Not present
Dr. Pritzker	Yes
Mr. Quisling	Yes
Mr. Reckert	Abstain
Mr. Richey	Yes
Vote Count	**Yes: 10** **No: 1** **Abstain: 2** **Not Present: 1**

Other Topics
Clinical Standards Subcommittee Co-Chairs
AAQPS Committee Members

Mr. Richey asked Committee members if they wanted to continue the discussion on Recommendation CS-C, which the Clinical Standards Subcommittee elected not to put forward to the Committee but was the subject of some Committee discussion following votes on the other AAPB-related recommendations. Mr. Judge requested to continue that discussion, noting that this was a very important discussion for state insurance commissioners and EMS state directors. He proposed the following suggested language for Recommendation CS-C, which largely mirrored the language put forward by the Subcommittee in the May 8 AAQPS meeting:

- "Congress should implement AAPB recommendation seeking clarification regarding how Airline Deregulation Act (ADA) preemption over states' ability to regulate price, routes, and services applies or does not apply to states' ability to regulate clinical aspects of air ambulance, such as use of Certificate of Need or regulating clinical scope of practice to ensure appropriate access to clinical services needed in a community."

Mr. Judge noted if the Committee was looking for a data driven design for a system, this recommendation was part of understanding the data and how the system is designed.

Mr. Quisling noted if he had a patchwork of aviation regulations and oversight around those operations, it would be extremely dangerous in terms of unintended consequences. The suggested recommendation language was essentially a ruling on what the ADA does and does not do and raised concerns the suggested language was outside of the Committee's scope because it is moving into states versus the federal government. Mr. Quisling was not supportive of the suggested language. Mr. Clayton agreed with Mr. Quisling, noting he could not support going down the path of looking at ADA preemption because it would have a detrimental impact on ability to transport and get to patients and would have a lot of unintended consequences. Mr. Judge clarified the suggested language did not include anything about aviation and instead focused on the clinical aspects of air ambulances.

Ms. Haugen asked whether it was possible to create a corollary to the ADA that was specific to clinical, to capture the intent of Mr. Judge's concern.

Mr. Richey noted the recommendation was already put forward by the AAPB Committee and asked whether that was enough and whether the AAQPS Committee needed to recommend it again. Mr. Judge clarified the AAPB recommendations modified the ADA and this proposed language did not do that – it instead focused on clarifying the ADA.

Mr. Clayton was not supportive of modifying the ADA and especially the certificate of need. He raised concerns that states would regulate rates, routes, and services and this might restrict where he could fly if a state did not have a certificate of need. This would have a detrimental impact on patients.

Mr. Houser noted from the standpoint of understanding air ambulances have too much regulation at the state level for clinical care, the logic behind clarifying the role of the ADA was clear. However, CoPs provide guidance for clinical care and the ADA provided guidance for aviation operations.

Ms. Haugen agreed transportation should be kept separate from healthcare and medicine and asked whether the language could be reworked to reflect the need to study the impact of the ADA on the clinical aspects of operations. Mr. Judge noted the language could be simplified, but there was a lot of gray area around what was considered medicine under the ADA and that state insurance commissioners had testified to this. Court cases had ruled that clinical aspects of medicine were preempted by the ADA because of economic regulation. As an example, it took four years to convince DOT that cabin temperature regulation was a clinical requirement, not an aviation standard. States had testified to the fact that there were a number of these gray areas.

Dr. Hinckley noted the current landscape had led to a lot of unintended consequences, specifically around volume. Patient outcomes were better when they were treated by people who did those things at higher volumes. This applied to air ambulance patients, and the per provider volume of air ambulance patients was much lower than it was 20 to 30 years ago. He also agreed that considering this question should be the purview of the Committee, not the Subcommittee.

Mr. Houser agreed with Dr. Hinckley that repetitive experience increased the prowess of a provider and their ability to do care at an exceptional level. The challenge was that mortality decreased with

proximity to an air medical resource or trauma center, particularly in the case of a trauma patient. Defining the balance where those two intersect appropriately still must be the answer. Furthermore, looking at the ADA's application to regulations, for example, from a licensing perspective, air ambulance organizations located in an area bordering more than one state already meet multiple requirements from a medicine perspective. Organizations that are geographically close to multiple states already meet the requirements of each state. The suggested language increased state oversight, which would limit resources and detrimentally affect patients.

Mr. Quisling agreed with Mr. Houser, noting his organization must meet multiple regulations and adding to those regulations increased the complexity of the operation and left fewer options to provide service. The intent of the Committee was to provide more services options in a safe manner at a high quality. Repetition could improve expertise and quality outcomes, but the research, quality assurance that happens with current providers, and training undergone with the current providers, covered a lot of these potential gaps. The suggested language involved tremendous risk, and the Committee has alternative solutions that address the intent of driving better patient outcomes in an aircraft.

Mr. Richey asked Committee members if they wanted to vote on a recommendation or if the discussion was sufficient. Mr. Reckert asked if the Committee was being procedurally correct with its Charter because the Subcommittee elected not to bring forward the recommendation and the Committee was discussing that recommendation. Mr. Wright clarified there was no procedural limitation with regard to the Charter or the scope of the Committee for the Committee to take on a discussion that might not have been completed by the Subcommittee or to pursue their own path. There was no requirement that the Subcommittee approve a recommendation prior to Committee deliberation.

Mr. Reckert noted recommendations from federal advisory committees tended to gain more traction when there was consensus within the Committee around the recommendation and that it sounded like the Committee did not have consensus around the recommendation. He suggested taking the recommendation back to the Subcommittee for further discussion or leaving the recommendation off entirely.

Mr. Reckert also recommended the Committee determine whether the suggested language fell within the Committee's scope since there was a lot of comments from Committee members about the suggested language being out of scope. Mr. Wright noted he was not certain who made the ultimate determination of what was out of scope. The Agencies that charter the Committee could accept the recommendations or not. Mr. Wright was willing to explore that topic more. The question of a recommendation being out of scope would need to be determined in terms of what goes into the final report.

Mr. Reckert noted the final option under consideration was whether to send the suggested language back to the Subcommittee for further discussion. Mr. Richey clarified the suggested language could not go back to the Subcommittee because the Committee was out of time. He also clarified the Subcommittee withdrew the recommendation, which was why it was not included in the package distributed to Committee members prior to the meeting.

Mr. Judge noted the path of least resistance was to state in the report that the Committee discussed this issue, identified gray areas, discussed the ADA's impact on states' ability to oversee clinical care, and was not able to reach a consensus on the topic. Mr. Richey agreed, noting the record would reflect the Committee had a robust discussion on this topic and that Committee members would have an opportunity to review and add appropriate clarifications to the report.

Review of Clinical Standards Recommendations Adopted May 8, 2025

Keith A. McMinn, Director, Life Lion, Penn State Health Milton S. Hershey Medical Center, Clinical Standards Subcommittee Co-chair

Mr. McMinn reviewed the voting results from the recommendations voted on and adopted during the Committee meeting held on May 8, 2025.

- **Recommendation #CS-1a:** Congress should pass legislation to establish air ambulance as a provider type regulated by Medicare so that CMS may establish Conditions of Participation and enforce basic clinical safety standards.
    - Voting Results: 9 Yes; 2 No; 3 Abstain
- **Recommendation #CS-2:** Congress should direct HHS to develop a Patient Safety Structural Measure (PSSM) adapted for the air ambulance setting, and to establish a new quality reporting program for air ambulance which includes reporting on the PSSM.
    - Voting Results: 14 Yes; 0 No; 0 Abstain
- **Recommendation #CS-3a:** HHS should issue guidance to hospitals and air ambulance providers clarifying that HIPAA does not prevent sharing patient clinical data for quality improvement purposes and clarifying the specific limitations and requirements for hospitals to share patient clinical data back to air ambulance providers.
    - Voting Results: 13 Yes; 0 No; 1 Abstain
- **Recommendation #CS-3b:** Congress should provide additional funding to bolster existing state and federal efforts to develop and promote health information exchange. This funding should specifically support improving the bidirectional exchange of patient clinical data between air ambulance providers and hospitals.
    - Voting Results: 12 Yes; 0 No; 2 Abstain

Public Comments

The public was offered an opportunity to provide comments to the Committee. No members of the public requested to comment during the meeting.

Closing

Final Reflections
AAQPS Committee Members

Mr. Richey expressed his gratitude for the Committee members, Subcommittee members, and public commenters and their contributions in developing these recommendations. He called on Committee members to share their closing reflections.

Committee members expressed their appreciation for the leadership of Mr. Richey and Mr. Wright, as well as for the hard work and dedication of the Committee and Subcommittee members. Several Committee members highlighted the complexity of the topics addressed and commended the group's commitment to patient-centeredness, quality, and safety. Mr. Houser shared a personal story that underscored the real-world impact of the Committee's efforts. Committee members noted the work accomplished by the Committee represented important progress for the air ambulance industry, and challenges and areas for further improvement remained. Committee members also acknowledged the significance of this federal effort and the value of collaboration between government and industry.

Next Steps
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Richey explained the Committee would work over the summer to complete the Report to Congress and Committee members would receive information regarding the report timeline and review process following this meeting.

He noted that the public may submit written comments until July 30th by emailing CMS at AAQPS@cms.hhs.gov, and all questions from the meeting would be answered and included in the summary report posted on the CMS AAQPS website.

The meeting was adjourned by David Wright at approximately 4:30 PM EST.

Questions and Answers

The public was offered an opportunity to submit questions to the Committee. No members of the public submitted questions during the meeting.

AIR AMBULANCE QUALITY AND PATIENT SAFETY (AAQPS)

Federal Advisory Committee Meeting 3

Meeting Date: July 10, 2025

Note: This Advisory Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

This is a public meeting that is being watched live by members of the public and is being recorded. By staying in this meeting, you are consenting to being recorded and for the transcript of this meeting to be posted publicly.

Committee Purpose

The Advisory Committee will advise the Secretary of Health and Human Services and the Secretary of Transportation on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The Advisory Committee shall study and make recommendations, as appropriate, to Congress regarding the following with respect to air ambulance services:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
4. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.
5. Clinical triage criteria for air ambulances.

The recommendations will be collated into a report to Congress.

Committee Structure

The Advisory Committee will hold three public meetings. In addition, there will be two subcommittees: a Flight Safety subcommittee and a Clinical Standards subcommittee. Each subcommittee will hold nonpublic meetings and report their recommendations to the main committee during the public meetings.

Meetings will be announced through the Federal Register and registration will be posted at: https://www.cms.gov/es/node/1974466.

Committee Members

Chair:
Jeff Richey, RN, MHA

Members:
William Hinckley, MD
Eileen Frazer, RN
Jason Clark
Mark Gamber, MD
Jordan Pritzker, MD
Commissioner Grace Arnold
Col. Steven Coffee
Ben Clayton
Jim Houser, MSN, APRN
Thomas Judge
Paul Julander
Jason Quisling
Robert Reckert

Reference Documents

Please see the CMS Air Ambulance Quality and Patient Safety Committee website for reference and pre-reading materials here: https://www.cms.gov/es/node/1974466.

Agenda: Third Full Committee Meeting

Overall Meeting Objectives:

- Review the findings and clarification from the subcommittees on recommendations that were not resolved during the May 8 AAQPS Committee meeting.
- Hear from Committee members and other subject matter experts, as needed, to provide additional context around subcommittee recommendations.
- Come to consensus and vote on remaining subcommittee recommendations.

(See next page for agenda)

Agenda: Third Full AAQPS Committee Meeting

All Times are EST	Introduction and Background	
10:00 – 10:30 AM	**Welcome**	David Wright (DFO)
	Meeting objectives	Jeff Richey (Chair)
	Recap of May 8 Meeting	Jeff Richey
	Flight Safety Subcommittee: Recommendation	
10:30 – 11:10 AM	**Recommendation FS-6** • Background • Problem • Justification • Benefits and challenges	Jason Quisling
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
	Flight Safety Subcommittee: Language Update and Review	
11:10 – 11:30 AM	**Language update, voting, and additional discussion**	Jason Quisling AAQPS Committee Members
	Clinical Standards Subcommittee: Statutory Overview	
11:30 – 11:45 AM	**Overview of clinical standards recommendations and alignment to AAQPS statutory mandate**	Kolby Kolbet Keith McMinn
11:45 AM – 12:45 PM	**Lunch**	
	Clinical Standards Subcommittee: AAPB Recommendations	
12:45 – 2:30 PM	**Recommendations** • Background • Problem • Justification • Benefits and challenges	Kolby Kolbet Keith McMinn
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey

2:30 – 2:40 PM	**Break**	
Clinical Standards Subcommittee: Recommendation		
2:40 – 3:40 PM	**Recommendation CS-1B** • Background • Problem • Justification • Benefits and challenges	Kolby Kolbet Keith McMinn
	AAQPS discussion and questions	AAQPS Committee Members
	AAQPS consensus and voting	Jeff Richey
3:40 – 4:10 PM	**Recap of recommendations and additional discussion**	Jeff Richey
4:10 – 4:20 PM	**Break**	
Public Comments		
4:20 – 4:30 PM		Public
Closing		
4:30 – 5:00 PM	**Final Reflections** • Committee final reflections • Next steps for the Report to Congress • Email/procedure for providing additional comments	Jeff Richey

Acronyms

AAPB	Air Ambulance Patient Billing
AAQPS	Air Ambulance Quality and Patient Safety
ACEP	American College of Emergency Physicians
ADA	Airline Deregulation Act
ADIP	Airport Data Information Portal
ADS-B	Automatic Dependent Surveillance–Broadcast
AFCS	Auto Flight Control Systems
ARAC	Aviation Rulemaking Advisory Committee
ATC	Air traffic control
BLS	Basic life support
CAMTS	Commission on Accreditation of Medical Transport Systems
CCSQ	Center for Clinical Standards and Quality
CMS	Centers for Medicare & Medicaid Services
CoP	Condition of Participation
CPDLC	Controller–pilot data link communications
CPT	Current Procedural Terminology
CRFS	Crash Resistant Fuel Systems
CRSS	Crash Resistant Seats and Structures
DOT	Department of Transportation
ECMO	Extracorporeal membrane oxygenation
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
EURAMI	European Aero-Medical Institute
FAA	Federal Aviation Administration
FACA	Federal Advisory Committee Act
GADCS	Ground Ambulance Data Collection System
GFA-LA	Graphical Forecasts for Aviation – Low Altitude
HAA	Helicopter Air Ambulance
HHS	Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
IDR	Independent Dispute Resolution
IFR	Instrument Flight Rules
MedPAC	Medicare Payment Advisory Commission
NAAMTA	National Accreditation Alliance of Medical Transport Applications
NADIN	National Airspace Data Interchange
NAEMSP	National Association of EMS Physicians
NOTAM	Notices to Airmen
NSA	No Surprises Act
NTSB	National Transportation Safety Board

OB	Obstetric
PSSM	Patient Safety Structural Measure
ROPWG	Rotorcraft Occupant Protection Working Group
SAFOs	Safety Alerts for Operators
SAS	Stability Augmentation Systems
TAWS	terrain awareness and warning systems
TDWR	Terminal Doppler Weather Radar
UAS	Unmanned aircraft system
VWOS	Visual Weather Observation Systems

Appendix G: AAQPS Advisory Committee Public Comments

The Committee did not receive public comments outside of the public AAQPS Committee meetings held on December 12, 2024, May 8, 2025, and July 10, 2025. Public comments received during the public Committee meetings are available in the public meeting summaries in Appendix F.

Appendix H: Clinical Standards Subcommittee Options Analysis

The tables in this appendix describe benefits and challenges of different approaches to address statutory areas related to clinical standards. The Clinical Standards Subcommittee presented these benefits and challenges to the full Committee, who then deliberated to select the recommendations reflected in this report.

Table H.1. Just Culture for Patient Safety Approach Options

Option	Action	Benefits	Challenges
Add New Patient Safety Require-ments to SMS	Congress directs FAA to work with industry and HHS to develop additional mandatory clinical requirements as an "add-on" to SMS.	• Builds on existing SMS structure which is familiar in industry • Existing SMS structure is compatible with an "integrated management system" (IMS) which incorporates other risk management components	• Not within existing FAA statutory authority • Air ambulance operators managing SMS may contract with clinicians and may not be best positioned to manage clinical requirements • FAA may not have the required expertise in-house
Add CMS PSSM to SMS	Congress directs FAA to incorporate a CMS-developed PSSM as an add-on to existing FAA-mandated SMS.	• Builds on existing SMS structure which is familiar in industry • Builds on CMS PSSM	• Not within existing FAA statutory authority • Air ambulance operators managing SMS may contract with clinicians and may not be best positioned to manage clinical requirements
Develop CMS PSSM for Air Ambulance*	CMS convenes technical experts to develop a structural measure for patient safety for air ambulance.	• Creates common framework for advancing patient safety and just culture • Provides a blueprint and motivation for continuing to advance safety beyond accreditation requirements	• Existing PSSM is hospital-specific and would need to be adapted for air ambulance • Unclear if this is within existing CMS statutory authority outside the context of a specific CMS quality program • Requires significant level of effort, budget, and time • Voluntary adoption may not be sufficient to drive change

Option	Action	Benefits	Challenges
Establish New Mechanism to Report Air Ambulance PSSM to HHS*	Congress directs HHS to create a new mechanism for air ambulances to report on the PSSM	• Builds on existing PSSM • Operators can use an IMS to meet requirements for both PSSM and SMS • Potential to add additional metrics, at launch or in the future • Providers unable to meet all requirements could still participate in Medicare	• Not within current HHS statutory authority • Would likely require CMS to establish air ambulance as a provider type • Requires significant level of effort, budget, and time

***** Subcommittee recommendation moved to Committee

Table H.2. Improving Access to Patient Clinical Data Approach Options

Option	Action	Benefits	Challenges
Reduce hesitancy to share data by clarifying HIPAA implications*	HHS issues guidance to hospitals and air ambulance providers clarifying HIPAA does not prevent sharing patient clinical data for quality improvement purposes and clarifies specific limitations of such data sharing.	• Relatively simple to implement • Addresses a key barrier, which is concerns about patient privacy and HIPAA compliance	May have limited impact on status quo
Establish a committee to study the issue	Congress establishes a committee to study the current state and further develop more specific recommendations on how to improve HIE for this use case.	• Develop more targeted recommendations from technical SMEs in interoperability, HIPAA, health information exchange, etc. • Collate data on current state, impacts on patient safety and crew wellbeing	• Defers action to a later date • Cost and time required for administering committee
Bolster* efforts to improve health information exchange between providers	Congress provides additional funding to bolster existing efforts to develop and promote HIE, specifically to support hospital/air ambulance data exchange.	• Leverages existing technical infrastructure • Compliance more likely with a system hospitals already use • Standard data set makes it easier and more sustainable to exchange data	• HIEs are run by states, with some federal funding and standards development • May have limited impact on status quo

Option	Action	Benefits	Challenges
Require hospitals to share patient clinical data	CMS initiates rulemaking to establish a requirement or incentive for hospitals to share patient clinical data back to air ambulance providers for quality improvement purposes.	• Precedent for CoPs to require hospitals to notify follow-up providers of patient admissions/transfers/ discharges • Establishing a requirement but leaving data specifications and exchange process open ended allows flexibility • Potential alternative for CMS to implement a hospital quality measure or interoperability standard	• Depending on level of detail of the requirement, it is unclear if CoPs would drive meaningful change from status quo • Additional burden on hospitals • Certain hospitals may not be able to achieve compliance, potentially impacting participation in Medicare/access to care • Lack of standard dataset/ process may still pose operational challenges • CMS would require data demonstrating negative impact of status quo on patient safety and benefits of such a policy to justify adding requirement to CoPs

***** Subcommittee recommendation moved to Committee

Table H.3. Establishing Minimum National Clinical Standards Approach Options

Option	Action	Benefits	Challenges
Update existing Medicare supplier requirements for ambulance services	CMS issues rulemaking to update existing requirements for suppliers of ambulance services to add requirements specific to AA.	• Creates basic national standards for suppliers of air ambulance services • Close to status quo; would not disrupt business practices • Within existing HHS statutory authority	• Very basic standards may have little impact on quality and safety • Does not resolve ADA preemption ambiguity • Little change to status quo • Requires rulemaking

Option	Action	Benefits	Challenges
Establish new Medicare provider type*	Congress directs CMS to establish air ambulance as a new Medicare provider type with CoPs.	• Same as above, plus: • Creates a survey and enforcement mechanism for basic safety requirements • Air Ambulance would be recognized as a CMS-certified provider • May lay the foundation for updating Medicare reimbursement or additional quality and safety standards • Builds on an existing framework	• Same as above, plus: • Not within current HHS statutory authority • May be disruptive for providers • Complicates the regulatory environment • Unlikely to be a significantly higher standard than current state
Compulsory accreditation for air ambulances seeking reimbursement as Medicare suppliers of ambulance services*	Congress creates legislation giving HHS statutory authority to require accreditation for Medicare suppliers of ambulance services.	• Creates more meaningful national standards for air ambulance providers • States still retain oversight of licensure of clinicians • Could potentially leverage existing accreditation organizations (AOs) already familiar and respected in industry • AOs can more easily update standards to reflect current industry norms/best practices (does not require rulemaking) • AA operators could continue to operate if not accredited, they just would not be eligible for Medicare reimbursement	• Not within current HHS statutory authority (requires legislation) • If standard is too high, it may put operators out of business and reduce access in frontier and rural areas • If standard is too low, may have little impact on quality and safety • Administrative burden to maintain compliance • Need to assess capacity of existing accrediting organizations

Option	Action	Benefits	Challenges
Compulsory national accreditation for all air ambulance providers, regardless of Medicare participation	Congress creates new legislation to require accreditation of clinical aspects of air ambulance at a national level (through HHS or FAA).	• Creates more meaningful national standards for air ambulance providers • National oversight of a critical piece of the healthcare ecosystem (esp. frontier/rural) • Resolve ambiguity of ADA preemption of states by clearly defining federal role in oversight of clinical aspects of AA • Reduce impact of conflicting state standards on interstate AAs	• Same as above, plus: • Need clear division of roles and coordination between HHS/FAA • Need to clarify to what extent this new national regulation preempts or is complementary to existing state and FAA oversight

***** Subcommittee recommendation moved to Committee

Appendix I: List of Final AAQPS Recommendations and Corresponding Proposed Recommendations

Prior to the Committee's adoption of the 13 final recommendations, the Clinical Standards (CS) and Flight Safety (FS) Subcommittees presented their proposed recommendations to the full Committee using a numbering schema to differentiate their proposals during the May 8 and July 10, 2025, public meetings. Table I.1 lists the 13 recommendations adopted by the AAQPS Committee, the initial recommendation number from each Subcommittee, a brief description of the recommendation's intent, and the ultimate determination on the recommendation after Committee discussion and voting.

Table I.1. AAQPS Recommendations and Corresponding Subcommittee Proposals

AAQPS Committee Recommendation Number	Subcommittee Proposed Recommendation Number	Brief Description of Recommendation	Committee Determination
AAQPS 1	CS-B	Evaluate adequacy of Medicare air ambulance reimbursement	Adopted 7/10/25
AAQPS 2	CS-D	Proposed Rule allowing CMS to collect air ambulance operational data	Adopted 7/10/25
AAQPS 3	CS-1(A)	Establish air ambulance as a Medicare-regulated provider type	Adopted 5/8/25
AAQPS 4	CS-2	Direct HHS to develop a patient safety structural measure and a quality reporting program	Adopted 5/8/25
AAQPS 5	CS-3(A)	Issue guidance on sharing clinical data for quality reporting purposes	Adopted 5/8/25
AAQPS 6	CS-3(B)	Provide additional funding for HIE efforts	Adopted 5/8/25

AAQPS Committee Recommendation Number	Subcommittee Proposed Recommendation Number	Brief Description of Recommendation	Committee Determination
AAQPS 7	CS-A	Incorporate "rebuttable presumption" in the NSA IDR process on air ambulance medical necessity	Adopted 7/10/25
AAQPS 8	FS-1	Enhance weather reporting and infrastructure in non-terminal areas	Adopted 5/8/25
AAQPS 9	FS-3	Improve low-altitude IFR infrastructure	Adopted 5/8/25
AAQPS 10	FS-2	Modernize helipad data, infrastructure, and safety standards	Adopted 5/8/25
AAQPS 11	FS-4	Enhance safety and technology for single-pilot operations	Adopted 5/8/25
AAQPS 12	FS-6	Mandate critical safety standards for occupant protection	Adopted 7/10/25
AAQPS 13	FS-5	Streamline certification and expedite approval pathways for technology and medical equipment	Adopted 5/8/25
N/A	CS-1(B)	Pass legislation to require compulsory accreditation for Medicare AA	Struck by Committee 7/10/25

Appendix J: Flight Safety Terms and Definitions and Acronyms

The following terms are used throughout this report in reference to aviation and flight safety. The definitions of these terms and the sources of those definitions used by the AAQPS Committee are listed in Table J.1. Acronyms are listed in Table J.2.

Table J.1. Flight Safety Terms and Definitions

Term	Definition	Source
Advanced Air Mobility (AAM)	"The terms '**Advanced Air Mobility**' and '**AAM**' mean a transportation system that moves people and property by air between two points in the United States (U.S.) using aircraft with advanced technologies, including electric aircraft, or electric vertical takeoff and landing aircraft, in both controlled and uncontrolled airspace."	Advanced Air Mobility Coordination and Leadership Act (P.L. 117-203, 136 Stat. 2227)
Airport Data and Information Portal (ADIP)	"The **Airport Data and Information Portal (ADIP)** is the FAA's centralized platform that streamlines the collection, validation, and management of airport data. It offers transparency into airport aeronautical information and enables authorized users to manage data specific to their airport."	FAA.gov: Airport Data and Information Portal

Term	Definition	Source
Automatic Dependent Surveillance – Broadcast (ADS-B)	"ADS-B stands for **Automatic Dependent Surveillance – Broadcast**...ADS-B Out works by broadcasting information about an aircraft's GPS location, altitude, ground speed and other data to ground stations and other aircraft, once per second. Air traffic controllers and properly equipped aircraft can immediately receive this information. This offers more precise tracking of aircraft compared to radar technology, which sweeps for position information every 5 to 12 seconds. Furthermore, radio waves are limited to line of sight meaning radar signals cannot travel long distances or penetrate mountains and other solid objects. ADS-B ground stations are smaller and more adaptable than radar towers and can be placed in locations not possible with radar. With ground stations in place throughout the country, even in hard to reach areas, ADS-B provides better visibility regardless of the terrain or other obstacles. ADS-B In provides operators of properly equipped aircraft with weather and traffic position information delivered directly to the cockpit. ADS-B In-equipped aircraft have access to the graphical weather displays in the cockpit as well as text-based advisories, including Notices to Airmen and significant weather activity."	FAA.gov: Ins and Outs
Automatic Flight Control Systems (AFCS)	Systems often used by helicopter manufacturers to meet requirements for IFR flight. These frequently fall into six main categories: (1) aerodynamic surfaces, which impart some stability or control capability not found in the basic VFR configuration; (2) trim systems, which provide a cyclic centering effect; (3) Stability Augmentation Systems; (4) Attitude Retention Systems (ATTs); (5) Autopilot Systems; and (6) Flight Directors.	FAA.gov: Helicopter IFR Operations

Term	Definition	Source
"Know Before You Fly" (B4UFLY)	"The **B4UFLY** service shows where recreational flyers [flyers who only fly their drone for fun] can and cannot fly… Key features of B4UFLY include information about controlled airspace, special use airspace, critical infrastructure, airports, national parks and military training routes; information about Temporary Flight Restrictions for special events; a clear status indicator that informs the operator whether it is safe to fly or not…; informative, interactive maps with filtering options; the ability to check whether it is safe to fly in different locations by searching for a location or moving the location pin; [and] links to other FAA drone resources."	FAA.gov: B4UFLY
Controller-Pilot Data Link Communication (CPDLC)	**Controller-Pilot Data Link Communication (CPDLC)** is part of the Data Communications program. "The Data Communications (Data Comm) program delivers air-to-ground data link infrastructure and applications that enable controllers and flight crews to exchange air traffic control information more efficiently than existing voice communications. Data Comm services enable the transmission of complex instructions that can be quickly and efficiently loaded into an aircraft's flight management system upon review and acceptance by the pilots."	FAA.gov: Data Communication Program
Enhanced Vision	**"[Enhanced vision]** systems use sensors to provide a better view of the outside world. These aircraft-based sensors use near-infrared cameras or millimeter wave radar to provide vision in limited visibility environments. EV systems can identify terrain in weather, and detect wildlife or other obstructions on the runway."	FAA.gov: Enhanced Vision Systems

Term	Definition	Source
FAA-Approved Weather Data	"Air carriers and operators certificated under the provisions of 14 CFR part 119 are required to use the aeronautical weather information systems defined in the Operations Specifications issued to that certificate holder by the FAA. These systems may utilize basic FAA/National Weather Service (NWS) weather services, contractor- or operator-proprietary weather services and/or Enhanced Weather Information System (EWINS) when approved in the Operations Specifications. As an integral part of this system approval, the procedures for collecting, producing and disseminating aeronautical weather information, as well as the crew member and dispatcher training to support the use of system weather products, must be accepted or approved."	FAA.gov: Meteorology
FAA Part 135	"Charter type services… the FAA grants the authority to operate on-demand, unscheduled air service. Air carriers authorized to operate with a 135 certificate vary from small single aircraft operators to large operators that often provide a network to move cargo to larger Part 121 air carriers. Many Part 135 operators offer critical passenger and cargo service to remote areas, providing a lifeline to populations that would not otherwise exist."	FAA.gov: Air Carrier Operations, Charter-Type Services (Part 135)

Term	Definition	Source
Graphical Forecasts for Aviation	**"Graphical Forecasts for Aviation** web page is intended to provide the necessary aviation weather information to give users a complete picture of the weather that may impact flight in the United States (including Alaska & Hawaii), the Gulf and Caribbean, and portions of the Atlantic and Pacific Oceans. The web page includes observational data, forecasts, and warnings that can be viewed from 18 hours in the past to 18 hours in the future. Hourly model data and forecasts, including information on clouds, flight category, precipitation, icing, turbulence, wind, and graphical output from the National Weather Service's National Digital Forecast Data (NDFD), are available. Low altitude data, previously found within the Helicopter Emergency Medical Services (HEMS) tool, is available to aid the Helicopter Air Ambulance (HAA) community and other low altitude flights. Built with modern geospatial information tools, users can pan and zoom to focus on areas of greatest interest."	Aviationweather.gov: GFA
Instrument Flight Rules (IFR)	"Rules and regulations established by the FAA to govern flight under conditions in which flight by outside visual reference is not safe. IFR flight depends upon reference to instruments in the flight deck, and navigation is accomplished by reference to electronic signals."	FAA.gov: Instrument Flying Handbook
Instrument Meteorological Conditions (IMC)	"Meteorological conditions expressed in terms of visibility, distance from clouds, and ceiling less than the minimums specified for visual meteorological conditions. IMC require operations to be conducted under IFR."	FAA.gov: Risk Management Handbook

Term	Definition	Source
National Airspace System	"The NAS [**National Airspace System]** is a network of both controlled and uncontrolled airspace, both domestic and oceanic. It also includes air navigation facilities, equipment and services; airports and landing areas; aeronautical charts, information and services; rules and regulations; procedures and technical information; and manpower and material."	FAA.gov: National Airspace System
Notice to Airmen (NOTAM)	"A [**Notice to Airmen] NOTAM** is a notice containing information essential to personnel concerned with flight operations but not known far enough in advance to be publicized by other means. It states the abnormal status of a component of the National Airspace System (NAS) – not the normal status."	FAA.gov: What is a NOTAM?
Performance-Based Rules	**"Performance-Based Rules** require a safety outcome, rather than a single prescriptive approach to achieving that outcome. The flexibility gained by the performance-based approach gives industry an incentive to innovate and find new, non-traditional ways to achieve the required safety outcome."	FAA.gov: Part 23 Amendment 23-64 Implementation Procedure Guide
Stability Augmentation Systems (SAS)	**"Stability Augmentation Systems (SAS)** … provide short-term rate damping control inputs to increase helicopter stability."	FAA.gov: Helicopter IFR Operations
Terminal and Non-Terminal Areas	**"Terminal area**: A terminal aerodrome forecast (TAF) is a concise statement of the expected meteorological conditions significant to aviation for a specified time period within 5 sm [statute miles] of the center of the airport's runway complex (terminal)… [These forecasts] are issued for nearly 700 U.S. Airports." "**Non-terminal areas**" refers to the areas outside of these forecasts for which this level of weather forecasting is not available.	FAA.gov: Aviation Weather Handbook, Chapter 27

Term	Definition	Source
Terminal Doppler Weather Radars (TDWR)	"For air traffic controllers who manage arriving and departing flights in the terminal area, [**Terminal Doppler Weather Radars**] TDWRs provide vital information and warnings about hazardous wind shear conditions, precipitation, gust fronts, [and] microbursts."	FAA.gov: Terminal Doppler Weather Radars
Unmanned Aircraft System (UAS)	"An **Unmanned Aircraft System (UAS)** is an unmanned aircraft and the equipment necessary for the safe and efficient operation of that aircraft. An unmanned aircraft is a component of a UAS. It is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft (Public Law 112-95, Section 331(8))."	FAA.gov: What is an unmanned aircraft system?
Visual Flight Rules (VFR)	"Flight rules adopted by the FAA governing aircraft flight using visual references. VFR operations specify the amount of ceiling and the visibility the pilot must have in order to operate according to these rules. When the weather conditions are such that the pilot cannot operate according to VFR, he or she must use instrument flight rules."	FAA.gov: Instrument Flying Handbook
Visual Weather Observation System (VWOS)	"Modernized weather camera data platform [that] combines 360° cameras and wx-obs [weather observations] into one platform.... [Includes] sensor auto-calibration, sensor data validation, [and] automatically report[s] sensor or data failures."	October 2020 Presentation by Walter Combs, Weather Camera Program Manager, FAA

Table J.2. Acronyms

Acronym	Definition
AAM	Advanced Air Mobility
AAMS	Association of Air Medical Services
AAPB	Advisory Committee on Air Ambulance Patient Billing
AAQPS	Air Ambulance Quality and Patient Safety
ACCT	Association of Critical Care Transport
ADA	Airline Deregulation Act
ADIP	Airport Data and Information Portal

Acronym	Definition
ADS-B	Automatic Dependent Surveillance–Broadcast System
AFCS	Auto Flight Control System
AFS	Ambulance Fee Schedule (Medicare Part B)
AHRQ	Agency for Healthcare Research and Quality
ALS	Advanced Life Support
AMOA	Air Medical Operators Association
AO	Accrediting Organization
ARAC	Aviation Rulemaking Advisory Committee
ARC	Consistency of Regulatory Interpretation Aviation Rulemaking Committee
ASAP	Aviation Safety Action Program
ASOS	Automated Surface Observing System
ASPE	Assistant Secretary for Planning and Evaluation
ATC	Air Traffic Control
AWOS	Automated Weather Observing System
B4UFly	“Know Before You Fly” app
CAA	Consolidated Appropriations Act
CAMTS	Commission on Accreditation of Medical Transport Systems
CCSQ	Center for Clinical Standards and Quality
CfC	Conditions for Coverage
CMS	Centers for Medicare & Medicaid Services
CoP	Conditions of Participation
CPDLC	Controller-Pilot Data Link Communications
CPT	Current Procedural Terminology
CRFS	Crashworthy-Resistant Fuel Systems
CRSS	Crash Resistant Seats and Structures
CS	Clinical Standards
DFO	Designated Federal Officer
DOD	Department of Defense
DOT	Department of Transportation
ECMO	Extracorporeal Membrane Oxygenation
EMS	Emergency Medical Service

Acronym	Definition
EMT	Emergency Medical Technician
ERISA	Employee Retirement Income Security Act of 1974
EURAMI	European Aero-Medical Institute
FAA	Federal Aviation Administration
FACA	Federal Advisory Committee Act
FDM	Flight Data Monitoring
FS	Flight Safety
GADCS	Ground Ambulance Data Collection System
GAMUT	Ground Air Medical Quality Transport
GAO	Government Accountability Office
GFA-LA	Graphical Forecasts for Aviation-Low Altitude
GPS	Global Positioning System
HAA	Helicopter Air Ambulance
HHS	Department of Health and Human Services
HIE	Health Information Exchange
HIPAA	Health Insurance Portability and Accountability Act
IDR	Independent Dispute Resolution
IFP	Instrument Flight Procedures
IFR	Instrument Flight Rules
IIMC	Inadvertent Instrument Metrological Conditions
IMC	Instrument Meteorological Conditions
InFOs	Information for Operators
IQR	Inpatient Quality Reporting
MedPAC	Medicare Payment Advisory Commission
MSAP	Maintenance Safety Action Program
MSL	Mean Sea Level
NAAMTA	National Accreditation Alliance of Medical Transport Application
NADIN	National Airspace Data Interchange Network
NAS	National Airspace System
NASEMSO	National Association of State EMS Officials
NEMSIS	National EMS Information System

Acronym	Definition
NOTAM	Notice to Airmen
NSA	No Surprises Act
NTHSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
NWS	National Weather Service
OB	Obstetric
OEMS	Office of Emergency Medical Services
OSHA	Occupational Safety and Health Administration
PCAST	President's Council of Advisors on Science and Technology
PSO	Patient Safety Organization
PSSM	Patient Safety Structural Measure
ROPWG	Rotorcraft Occupant Protection Working Group
SAFOs	Safety Alerts for Operators
SAS	Stability Augmentation Systems
SMS	Safety Management Systems
TAC	Technical Assistance Center
TAF	Terminal Aerodrome Forecast
TDWR	Terminal Doppler Weather Radar
UAS	Unmanned Aircraft System
USHST	U.S. Helicopter Safety Team
VFR	Visual Flight Rules
VR	Virtual Reality
VWOS	Visual Weather Observation System