DATE: December 7, 2021

TO: State Survey Agency Directors

FROM: Directors, Quality, Safety & Oversight Group (QSOG) and Survey & Operations Group (SOG)

SUBJECT: Evidence-based best practices for hospitals in managing obstetric emergencies and other key contributors to maternal health disparities

Memorandum Summary

- The Condition of Participation for Quality Assessment and Performance Improvement Program (§482.21) requires that hospitals develop, implement, and maintain an effective, ongoing, hospital wide, data-driven quality assessment and performance improvement program.

- CMS is encouraging hospitals to consider implementation of evidence-based best practices for the management of obstetric emergencies, along with interventions to address other key contributors to maternal health disparities, to support the delivery of equitable, high-quality care for all pregnant and postpartum individuals.

Background

Each year in the U.S., approximately 700 women die from pregnancy-related complications, and over 25,000 survive having experienced severe complications of pregnancy (severe maternal morbidity).1,2 Furthermore, racial, ethnic, and geographic disparities intensify the nation’s maternal health crisis. Black and Indigenous women die from pregnancy-related causes at a rate 2-3 times higher3 and experience severe maternal morbidity at a rate nearly two times higher2 than their White, Asian Pacific Islander, and Hispanic counterparts. Pregnant women who live in rural communities are at higher risk for severe maternal morbidity and about 60 percent more likely to die before, during, or after delivery than those living in urban settings.4 Yet, two out of three

pregnancy-related deaths are considered preventable.5

As one part of the solution, systematic quality improvement (QI) efforts are underway in hospitals across the country to not only enhance the quality and safety of maternity care, but also reduce the disparity gap in maternal health outcomes. Facilities are participating in local/regional perinatal quality collaboratives (PQCs), application of early warning sign tools, and especially, use of patient safety “bundles.”6,7 The Institute for Healthcare Improvement defines bundles as “a small, straightforward set of evidence-based practices that, when performed collectively and reliably, have been demonstrated to improve patient outcomes.”8 Maternal safety bundles, often implemented through PQCs, have demonstrated success in driving improvements, particularly with regards to obstetric hemorrhage, severe hypertension in pregnancy, and non-medically indicated Cesarean deliveries.9,10,11 Additionally, the racial disparity gap in certain perinatal outcomes has shown modest narrowing in association with hospital participation in bundle implementation and related QI efforts.12

Maternal Safety Bundles
There are various frameworks in the design and implementation of bundles for maternal safety. One rubric employed by the Alliance for Innovation on Maternal Health (AIM), a program implemented by the American College of Obstetricians and Gynecologists (ACOG) with funding from the Health Resources and Services Administration (HRSA), organizes evidence-based recommendations for patient safety bundles into four domains, or the four “R’s”: 1) Readiness, 2) Recognition and Prevention, 3) Response, and 4) Reporting and Systems Learning.13 For example, some of the AIM bundle recommendations for responding to obstetric hemorrhage include:

1. Readiness
   • Hemorrhage cart with the necessary supplies
2. Recognition and Prevention
   • Measurement of cumulative blood loss
3. Response
   • Standardized emergency management plan for obstetric hemorrhage
4. Reporting and Systems Learning
   • Multi-disciplinary review of serious cases

This framework is meant to guide facilities in identifying key opportunities for improvement, such as the need to partner with other local and/or regional health systems to assist with patient transfer

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to higher levels of care, as appropriate. In addition, recognizing the importance of threading a health equity lens throughout implementation of all bundles, the AIM program recently added a fifth “R” as well: “Respectful, Equitable, and Supportive Care.” This domain has already been incorporated into several new AIM bundles,¹⁴,¹⁵,¹⁶ and will be added with revisions to earlier bundles – including for both obstetric hemorrhage and severe hypertension in pregnancy – beginning in 2022.

Generally, key lessons learned in support of effective bundle adoption and dissemination of associated QI strategies include: identifying institutional champions and building consensus across disciplines; tailoring strategies to local context and culture; engaging in ongoing iteration, training, and technical assistance; facilitating access to rapid-cycle data to measure and analyze progress; and, preparing for incremental scale-up to sustain positive change.⁶,¹⁷,¹⁸,¹⁹,²⁰


**Maternal Morbidity Structural Measure**

Beginning with October 1, 2021 discharges, CMS adopted a new structural quality measure for the Hospital Inpatient Quality Reporting (IQR) Program that asks hospitals to attest to whether they participate in a statewide and/or national maternal safety quality collaborative, and whether they have implemented patient safety practices or bundles to improve maternal outcomes. Specifically, hospitals participating in the Hospital IQR Program that provide inpatient peripartum care will be required to respond to the following questions for the fourth quarter of 2021 and then, beginning in 2022, on an annual basis:

Does your hospital or health system participate in a Statewide and/or National Perinatal Quality Improvement Collaborative Program aimed at improving maternal outcomes during inpatient labor, delivery and postpartum care, and has implemented patient safety practices or bundles related to maternal morbidity to address complications, including, but not limited to, hemorrhage, severe hypertension/preeclampsia or sepsis?

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CMS is considering additional quality measures for future years to further advance maternity care safety and quality.

**Resources**
In support of delivering equitable, high-quality maternity care, CMS encourages hospitals to review their policies and procedures for incorporation, where appropriate, of the aforementioned best practices. Additional information and resources are listed below. This list is not exhaustive; CMS recommends that hospitals also explore other national resources, as well as those specific to their state and/or region.

- Agency for Healthcare Research and Quality [Toolkit for Improving Perinatal Safety](#)
- Centers for Disease Control and Prevention-Funded [Perinatal Quality Collaboratives](#)
- HRSA-Funded AIM Program [Patient Safety Bundles](#)
- HRSA-Funded Rural Health Information Hub [Rural Maternal Health Toolkit](#)
- Institute for Healthcare Improvement [Tools](#)
- National Institute for Children’s Health Quality [National Network of Perinatal Quality Collaboratives](#)
- The Joint Commission [ Provision of Care, Treatment, and Services Standards for Maternal Safety](#)
- U.S. Department of Health and Human Services and March of Dimes Public-Private Partnership, Maternal Health Collaborative to Advance Racial Equity (Maternal HealthCARE), [Quality Improvement Initiative](#)

**Contact:** Questions about this memorandum should be addressed to QSOG_Hospital@cms.hhs.gov.

**Effective Date:** This is an Advisory memo only.

/s/

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cc: Survey and Operations Group Management  
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