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American Thyroid Association Policy Statement: Impact of Changes in Fine Needle Aspiration Biopsy Reimbursement on Clinical Care of Patients with Thyroid Nodules in the United States

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Introduction: The Clinical Affairs Committee of the American Thyroid Association has developed this statement to describe recent changes in the billing and coding of ultrasound-guided fine needle aspiration procedures of thyroid nodules, and to raise awareness of the adverse consequences that have arisen as a result.

Review: A reduction in payment of ultrasound-guided fine needle aspiration procedures was enacted by the Centers for Medicare and Medicaid Services in 2019. The Clinical Affairs Committee has sought to examine the effects of the change in reimbursement on the care of patients with thyroid diseases.

Summary: The historical background of the changes in payment structure for ultrasound-guided fine needle aspiration of thyroid nodules is discussed. The years 2019 and 2020 saw a significant decline in claims for ultrasound-guided fine needle aspiration procedures, concomitant with a shift in the performance of these procedures away from non-facility outpatient settings and a rise in costs to the health care system.

Conclusion: Several negative consequences of the decrease in reimbursement for ultrasound-guided fine needle aspiration of thyroid nodules have arisen. This has led to significant concern among clinicians who care for patients with thyroid diseases regarding delays in patient access to care and diagnosis, and a diminished pool of qualified thyroid specialists to perform these procedures in the future.

Keywords: fine-needle aspiration, reimbursement, thyroid nodules, Centers for Medicare and Medicaid Services (CMS), ultrasound

Introduction

Thyroid fine needle aspiration (FNA) and diagnostic neck ultrasound (US) examinations are essential tools employed by clinicians who care for patients with thyroid diseases, including endocrinologists and surgeons. Over the last few decades the use of neck US, along with US-guided FNA procedures and, more recently, the availability of molecular marker testing, has revolutionized the care of patients with thyroid nodules. Selective use of these tools by clinicians who frequently manage thyroid diseases can lead to the elimination of unnecessary surgical and imaging procedures, which

are more invasive and expensive, and can also lead to the prevention of complications that impact both patient quality of life and health care costs. Not only does the use of US and US-guided FNA inform the evaluation and clinical decision-making for thyroid nodules and thyroid and parathyroid diseases in general,^{1–3} but also the application of these procedures for molecular marker sampling in indeterminate thyroid nodules has been demonstrated to be a cost-effective strategy by decreasing unnecessary surgery.^{4–6}

In the 2019 Physician Fee Schedule, the Centers for Medicare and Medicaid Services (CMS) reduced the relative value unit (RVU) assignments for the FNA current

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Executive Summary

Changes in Physician Fee Schedule in 2019

- In the 2019 Physician Fee Schedule, the Centers for Medicare and Medicaid Services (CMS) reduced the relative value units (RVUs) for ultrasound-guided fine needle aspiration (FNA) current procedural terminology (CPT®) codes.
 - The work RVU recommended by the American Medical Association's Relative Value Scale Update Committee (AMA/RUC) for the new 10005 CPT® code was 1.63, while the value finalized by CMS was 1.46.
 - The dollar reimbursement amount for FNA of one thyroid nodule decreased by 35.7%.

Impacts of Changes in Fee Structure on Clinical Practice

- Claims for FNA fell by 19% in 2019 and again by 19% in 2020.
- There was an increase in claims for hospital facilities from 52.06% to 55.08% between the years 2018 and 2021.
- The shift in performance of FNA to facility locations versus outpatient settings has resulted in an increased cost to Medicare of 524%.

Concerns Regarding Future of Thyroid FNA

- Adverse effects on quality of care.
 - Fragmentation of thyroid nodule evaluation.
 - Reduced access to timely thyroid cancer diagnosis.
- Continued massive rises in cost to health care system.
- Impact on procedural training in specialty fellowship programs.

procedural terminology (CPT®) code set, despite advice from the American Medical Association/Specialty Society Relative Value Scale Update Committee (AMA/RUC), the expert panel of physicians that makes recommendations to the federal government on resources required to provide medical services.

The downstream effects of CMS' devaluation of these services have been significant, impacting both quality and cost of care. A subcommittee of the American Thyroid Association (ATA) Clinical Affairs Committee (CAC) has sought to further understand the impact of these changes. The ATA, in partnership with the American Association of Clinical Endocrinology (AACE), surveyed its membership in 2023 and is participating in ongoing efforts to persuade CMS to consider the FNA codes as "potentially misvalued." Upon approval by the ATA Board of Directors, the CAC has developed this document to describe the billing and coding of these procedures and to bring awareness to the adverse consequences that have arisen due to their devaluation.

Historical Background

Prior to 2019, two CPT® codes were utilized for FNA procedures—10022 (FNA with imaging guidance) and 10021 (FNA without imaging guidance). Additionally, code 76942 was used in combination with these codes to reflect the use of ultrasound guidance for needle placement. In the 2019

Medicare Physician Fee Schedule, code 10022 was deleted, code 10021 was revised, and 9 new codes (10004–10012) were created (Table 1). The new FNA code family distinguished FNA biopsies by imaging modality, and the use of a separate code to denote ultrasound guidance, 76942, was therefore no longer recommended. The new codes also differentiated billing for the biopsy of a first lesion from biopsies of additional lesions in the same session. A code for FNA without imaging guidance of additional lesions was also included.

Concurrently with these changes in coding, the AMA/RUC Committee assessed the new CPT® code family. A reduction in work relative value unit (wRVU) compared to previous years' FNA codes was advised to CMS after a survey of multiple medical specialties. However, in the 2019 Physician Fee Schedule, CMS established work values that were even lower than those recommended by the RUC for three of the nine new codes. Most relevant among these three devalued codes to the treatment of patients with thyroid disease were 10021 (FNA without imaging guidance; first lesion) and 10005 (FNA with ultrasound guidance; first lesion). Prior to 2019, the wRVU assigned by CMS for the biopsy of one thyroid nodule using ultrasound guidance was 1.94. The RUC-approved wRVU that was recommended for the same procedure using the new 10005 code was 1.63, while the value finalized by CMS in the 2019 Physician Fee Schedule was 1.46 (Table 1). It is important to note the marked decrease in physician reimbursement for US-guided FNA of thyroid nodules that has evolved as a result of this change. While the

TABLE 1. FINE NEEDLE ASPIRATION WORK RELATIVE VALUE UNIT ASSIGNMENTS, SPECIALTY SOCIETY RELATIVE VALUE SCALE UPDATE COMMITTEE-RECOMMENDED VERSUS CENTER FOR MEDICARE AND MEDICAID SERVICES-ASSIGNED^{11–13}

| CPT® code | Description | RUC-recommended wRVU | Post-2019 |
|-----------|--|----------------------|-------------------|
| | | | CMS-approved wRVU |
| 10004 | FNA, without imaging guidance; each additional lesion | 0.8 | 0.8 |
| 10005 | FNA with imaging guidance; 1st lesion | 1.63 | 1.46 |
| 10006 | FNA with ultrasound guidance; each additional lesion | 1.00 | 1.00 |
| 10007 | FNA with fluoroscopic guidance; first lesion | 1.81 | 1.81 |
| 10008 | FNA with fluoroscopic guidance; each additional lesion | 1.18 | 1.18 |
| 10009 | FNA with CT guidance; first lesion | 2.43 | 2.26 |
| 10010 | FNA with CT guidance; each additional lesion | 1.65 | 1.65 |
| 10011 | FNA with MR guidance; first lesion | C | C |
| 10012 | FNA with MR guidance; each additional lesion | C | C |
| 10021 | FNA without imaging guidance; first lesion | 1.20 | 1.20 |

CMS, Center for Medicare and Medicaid Services; CPT®, current procedural terminology; CT, computed tomography; FNA, fine needle aspiration; MR, magnetic resonance; RUC, Specialty Society Relative Value Scale Update Committee; wRVU, work relative value unit.

FNA wRVU for CPT code 10005 decreased from 1.63 to 1.46, or 10.5%, the dollar amount for reimbursement decreased from \$205.18 to \$131.95 by 2024, representing a dramatic 35.7% reduction in payment (Table 2). This more significant shift in dollar amount versus wRVU value is attributable mainly to the Medicare conversion factor (CF). The CF varies annually and is based on an intricate payment formula affected by many economic factors within the U.S. health care economy.^{7,8}

Despite outreach by several prominent medical specialty societies contesting these changes, including the ATA, the lower wRVU assignments have remained unchanged in all annual Physician Fee Schedules released by CMS since their implementation in 2019. In February of 2024 the ATA, in collaboration with AACE, again submitted a letter to CMS requesting that the FNA codes affected be nominated for potential misvaluation ahead of the 2025 Physician Fee Schedule Final Rule publication.⁹ In this communication to CMS, it was asserted that the lower valuation of these codes has resulted in increased overall costs, reduced access to the procedure, and reduced quality of care. Also raised was the inappropriate use of neonatal transfusion (CPT® code 36440) as a comparable procedure to assess physician time, skill needed, and “intensity” (i.e., level of difficulty) of FNA. Subsequently in the most recent Calendar Year (CY) 2025 Payment Policies under the Physician Fee Schedule released in July of 2024, CMS has maintained their position that the reimbursement codes are not misvalued.¹⁰ Society efforts to revisit this issue continue.

Impact of Relative Value Unit Changes on Medicare Claims

As a result of the changes implemented by CMS, claims for FNA fell by 19% in 2019 and again by 19% in 2020.¹⁴ Although this decline may have been attributable in part to other factors, including the implementation of thyroid nodule risk stratification systems^{3,15,16} and the COVID-19 pandemic, the RVU changes implemented by CMS that immediately preceded this decline undoubtedly also played an important role. The new access problem created by the decline in procedures being performed has the potential to cause delays in diagnosis and adverse outcomes, particularly for patients with more clinically significant tumors whose cancers may be diagnosed at more advanced stages.

Another downstream effect of the lower wRVU values is the discontinuation of these procedures at non-facility outpatient practices, which is reflected by the shift (increase) in claims for hospital facilities from 52.06% to 55.08% between the years 2018 and 2021. The performance of these procedures in a facility location, as opposed to an outpatient setting, has resulted in a staggering increased cost to Medicare of 524% (Table 3). If we consider this shift from office to facility locations that was seen between 2018 and 2021, with the additional cost of \$584.92 at facility locations, Medicare experienced an additional cost of \$2,725,544 due to physicians in non-facility locations abandoning the procedure. Medicare claims from calendar year 2022 also indicate a shift in the type of clinician performing the procedure, with 52.3% of FNAs being performed by radiologists and 17.6% by endocrinologists.⁹

TABLE 2. MEDICARE NON-FACILITY REIMBURSEMENT AND WORK RELATIVE VALUE UNITS FOR FINE NEEDLE ASPIRATION OF THYROID NODULES WITH ULTRASOUND GUIDANCE^{11–13} (NO LOCALITY ADJUSTMENT)

| | 2018 | 2024 |
|---|----------|----------|
| FNA of 1 thyroid nodule, Medicare non-facility reimbursement | \$205.18 | \$131.95 |
| FNA of 2 thyroid nodules, Medicare non-facility reimbursement | \$349.16 | \$190.88 |
| FNA of 1 thyroid nodule, wRVUs | 1.94 | 1.46 |
| FNA of 2 thyroid nodules, wRVUs | 3.21 | 2.46 |

FNA, fine needle aspiration; wRVU, work relative value unit.

TABLE 3. SHIFT FROM OUTPATIENT TO FACILITY LOCATIONS RESULTING IN INCREASED COST TO MEDICARE

| CPT code | 2023 national MPFS total non-facility payment | 2023 national MPFS total facility payment | 2023 HOPPS facility fee (APC code 5071) | 2023 combined payment when in hospital outpatient setting (MPFS+ OPFS) | Site of service % differential (hospital outpatient vs non-facility) |
|----------|--|---|---|--|---|
| Office | \$137.92 | | | \$137.92 | |
| Facility | | \$73.87 | \$648.97 | \$722.84 | 524% |

APC, ambulatory payment classifications; HOPPS, hospital outpatient prospective payment system; MPFS, Medicare physician fee schedule; OPFS, outpatient prospective payment system.

Impact on Clinical Care

An informal survey (data unpublished) was conducted of ATA and AACE members in 2023 as a means to gather the opinions of thyroid specialists regarding the decrease in FNA reimbursement, and in order to meet the minimum sample size required to request a reevaluation of the FNA codes with AMA/RUC. Physician respondents expressed concerns regarding the need for patients to make additional appointments with outside providers or facilities, thereby leading to inconvenience and expense. Respondents noted that it had become more challenging to find the necessary services for their patients and that patients disliked having a procedure with different staff or location of service. Physicians were aware that the facility fee for performing the procedure was higher than in their office, but the decreased reimbursement did not allow them to continue to perform the procedure. Respondents also noted that care was more fractured and delays in scheduling at an outside facility were disadvantageous to patients. Finally, concerns were raised about lack of sufficient training and experience to expertly perform the procedure in practice.

Discussion

There is significant concern among thyroid specialists that the reduction of wRVUs for thyroid FNA procedures by CMS since 2019 has had multiple negative effects on clinical care. Since these procedures are a vital component of thyroid care, not having them available at the endocrinologist's or thyroid surgeon's office creates a barrier to providing comprehensive and well-rounded care for conditions such as thyroid nodules and cancer, multinodular goiter, and parathyroid diseases. Referral of patients for procedures that could have been performed by the referring provider results in fragmentation of clinical care. This disjointed care may, in turn, lead to decreased patient satisfaction, inconvenience to the patient, and less nuanced care. Moreover, it has been established that poor access to care in rural communities leads to delays in thyroid cancer diagnosis;¹⁷ therefore, it is reasonable to conclude that decreased access to FNA will exacerbate the disparity of care in this population and contribute to the incidence of more advanced thyroid cancer presentations.

Given the nuance and interobserver variability in thyroid US interpretation, radiology practices that do not focus on thyroid US or that are not in a multidisciplinary setting may be less likely to provide care that includes comprehensive sonography or shared decision-making in determining whether a nodule warrants FNA and additional studies.^{18,19} For example, performance of FNA by the treating physician in the office allows for real-time decision-making regarding the

ordering of specialized tests, such as thyroglobulin, calcitonin, PTH washout, and molecular marker testing. Clinicians performing procedures at facilities are typically limited to offering only what was ordered, which may necessitate additional sampling at a later date and delays in diagnosis. Additionally, the shift in these procedures to others without expertise in thyroid diseases may result in an increase in unnecessary procedures, and a more thorough examination of the neck may be lacking (abnormal lymph nodes or abnormalities in the rest of the thyroid gland may be missed by targeted imaging studies). Coupled with the aforementioned additional costs incurred, all of these factors contribute to the overall increased costs to Medicare and the health care system.

Competence in thyroid US and FNA training is an ACGME requirement for trainees during endocrinology and endocrine surgery fellowships.²⁰ Another important downstream effect of the reduction in these procedures performed at training programs is the adverse impact on fellowship training. Trainees are being discouraged from learning these procedures during fellowship because of the widespread sentiment that the procedures are so badly undervalued that it is no longer worthwhile to perform them in a clinical setting. The result will be a vastly reduced number of thyroid specialists entering clinical practice who have expertise in performing FNA. This damage to the future subspecialist workforce will potentially also result in a domino effect of further decreases in access to and quality of care over time.

Conclusion

The reduction in reimbursement of US-guided FNA procedures that occurred as the result of changes to the 2019 CMS Physician Fee Schedule has led to a cascade of negative consequences impacting the care of patients with thyroid nodules and cancer. These include increased overall costs, reduced access, fragmentation of care, reduced quality of care, and an impact on endocrinology fellowship training, all of which may ultimately impact clinical practice for many years to come.

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Authors' Contributions

L.S.E.: Conceptualization, writing—original draft, writing—review and editing. J.E.L.: Conceptualization, writing—original

draft, writing—review and editing. C.T.: Conceptualization, writing—original draft, writing—review and editing. D.M.: Conceptualization, writing—original draft, writing—review and editing.

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