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Holding gastroenterologists accountable for colonoscopy through MACRA episode-based cost measure

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Background

Changes to provider reimbursement are already underway as a result of The Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA) (1). In an effort to control rising health care costs, legislators are shifting toward a system that holds providers more accountable for total cost of care (2). This is reflected in the strong bipartisan support for MACRA, which introduced a new approach to clinician payment, focused on transitioning from fee-for-service to value-based reimbursement.

MACRA created the Quality Payment Program (QPP) that changes the way Medicare rewards providers, emphasizing value over volume. This is executed through two avenues: the Merit Based Incentive Payments System (MIPS) and Alternative Payment Models (APMs). Although public discourse has focused on the rise of APMs such as accountable care organizations (ACOs) or bundled payment, the Centers for Medicare and Medicaid Services (CMS) accurately predicted that the majority of clinicians are participating in MIPS (3). This means that eligible providers continue to be reimbursed fee-for-service, but receive a payment bonus, a payment penalty, or no payment adjustment based on a calculated composite score to reflect program goals. The score is determined by clinician performance in four categories: quality, cost, clinical practice improvement activities, and meaningful use of electronic health records (1). Over time, the score will impact a larger percentage of provider reimbursement, up to 7% of overall clinician reimbursement at risk for bonus or payment cuts. Additionally, the weighting of the composite score towards cost will increase over time. The ultimate impact of MACRA is that gastroenterologists will be responsible for the total cost of care for their patients.

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Given the public health impact and cost of colon cancer screening, many of the initial efforts relating to MIPS have focused on screening and surveillance colonoscopy. The following colonoscopy-related metrics are included in the MIPS quality performance category: 1. Age appropriate screening colonoscopy, defined as the percentage of patients over 85 years of age who receive a screening colonoscopy, 2. Appropriate follow-up interval for normal colonoscopy in average risk patients, which is calculated by the percentage of patients from 50 to 75 years of age who received a screening colonoscopy without biopsy or polypectomy and were recommended to follow-up in at least 10 years for repeat colonoscopy, 3. Colonoscopy interval for patients with a history of adenomatous polyps, defined as a percentage of patients aged 18 years or older who receive a surveillance colonoscopy with a history of prior adenomas with at least 3 years since their last colonoscopy, 4. Screening colonoscopy adenoma detection rate, and 5. Photodocumentation of cecal intubation.

Alongside quality metrics, the first gastroenterology-related episode-based cost measure was created, and focused on Screening/Surveillance Colonoscopy. In this article, we describe the creation of this cost measure and our experience at an academic medical center with early implementation.

Episode-based cost measures

Under MACRA, CMS uses predefined episode groups to develop cost measures. Episode groups are created around a specific service or defined episode of care, which is identified by a CPT or DRG code. The medical services used during a defined time period before and/or after the service are included in the total cost. Such services can include treatment-related services (such as anesthesiology and pathology costs associated with a colonoscopy), diagnostic testing (such as biopsies), and services before or after the episode. It can also encompass follow-up care or treatment for post-procedural complications. The aggregated cost results in a calculated episode-based payment. The overall goal is to incentivize providers to reduce healthcare utilization, such as unnecessary peri-procedure testing, and reward physicians with fewer post-procedural complications requiring ED visits or hospitalizations.

There are currently three types of episode groups that serve as the basis for cost measures: procedural, acute inpatient medical condition, and chronic condition. Examples in gastroenterology include colonoscopy (procedural), and hospitalization for gastrointestinal bleeding (acute inpatient medical condition). Currently, no chronic condition episode groups have been created or proposed related to gastroenterology. Additionally, in other specialties, the development of chronic condition episodes have been halted for now, given challenges with defining appropriate episode windows.

Screening/surveillance Colonoscopy Cost Measure

Cost Measure Development

A diverse group of stakeholders, including physicians, patients, and experts from academia and healthcare administration, were included in cost measure development. For the screening/surveillance colonoscopy cost measure, the clinical subcommittee was composed

of 35 clinical subcommittee members affiliated with 23 specialty societies, including the American Gastroenterological Association (AGA), American College of Gastroenterology (ACG), American Society of Gastrointestinal Endoscopy (ASGE), among other groups in anesthesiology, internal medicine, and general surgery (4). Aside from the clinical subcommittees, there were Technical Expert Panels and Person and Family Engagement Committees which also provided input on cost measure development.

The cost measure was drafted using clinical input from the subcommittee members (May 2017-September 2017), some of which is informed using retrospective Medicare data. The proposed measure was then field tested from October to November 2017 using Medicare data over a year period, and the cost measure was calculated by determining the risk-adjusted episode cost, averaged across all of a clinician's episodes during the measurement period. Additional public comments were sought during two National Provider Calls on October 30, 2017 and November 2, 2017 which described field testing and sought feedback. These webinars engaged over 1000 participants across all of the new eight cost measures, including colonoscopy. The public comments were summarized, and released in June 2018. In July 2018, as part of the CY 2019 Medicare Physician Fee Schedule proposed rule, the cost measure was proposed for inclusion in the MIPS cost performance category for 2019. Comments on this and other proposals were accepted through September 2018. This proposal was finalized in November 2018 (4).

Summary of Screening/Surveillance Colonoscopy Cost Measure

The cost measure is described in Table 1 below (4). Notably, only patients who are average risk for colon cancer screening are included, which therefore excludes patients with inflammatory bowel disease (IBD) and those who received endoscopic mucosal resection during their colonoscopy. Also, site of service such as ambulatory surgical centers (ASC) and hospital outpatient department (HOPD), are captured, and separated into subgroups for more meaningful clinical comparisons.

Our experience in an academic center

Lessons learned—Our academic center assembled a team of clinicians, practice managers, data analysts, and clinical documentation specialists to review the cost measure, evaluate data, and examine potential opportunities to streamline care. Through this process, we noted several areas of cost variation among providers. First, procedures performed at a hospital outpatient department (HOPD) cost more than the same colonoscopy performed at an ambulatory surgical center (ASC); this observation has been shown in prior reports (5,6). This was the biggest driver of cost variation. Since the cost measure includes subgroups for site of service, and comparisons are made among subgroups, this factor should be adequately accounted in the measure. Another significant contributor in the cost of colonoscopy is the inclusion of Anesthesiology for sedation. Monitored anesthesia care (MAC) is more expensive, but there has been a shift toward using propofol at our institution, like others throughout the country as it can sedate patients more quickly, shorten recovery time, and potentially improve patient satisfaction, although the quality implications are unclear (7,8). Also, variation in practice patterns on pathology acquisition can impact cost as well. For example, if colon biopsies are placed in separate jars based on location, this would

incur a greater cost than if all biopsies are placed in the same pathology container. Finally, another driver of cost is complications related to bleeding or cardiovascular events. While the cost can be substantial, these are rare occurrences, particularly at our institution.

Challenges—Although several areas of variation have been noted, we found it difficult for our institution to make changes in these areas, and unclear that providers at an individual level can make efforts to reduce costs. For example, a provider who is assigned to do cases at a HOPD with anesthesia may have little room to reduce costs. Decisions about site of service and sedation are made at an institution level with other clinical and financial considerations, such as other services provided in the facility and location of the site of service. These factors tend to be more difficult to change in the short term, and there are stronger financial incentives through reimbursement. Even with chart review of specific cases, it was challenging to find opportunities to reduce pathology utilization according to guidelines. Notably, from a physician perspective, it is not clear that changes to reduce cost would improve quality of patient care.

Opportunities—While this cost measure was challenging for our institution, there may be opportunities from a policy perspective. First, while it is difficult for individual providers to alter site of service or use of anesthesia, these types of cost measures may impact institutional decisions about shifting to lower cost settings or use of endoscopist-directed sedation. This cost measure may also be complementary to colonoscopy bundled payment arrangements with commercial payers (9). Second, these types of cost measures could allow gastroenterologists to start having conversations about cost of care in a more directed way than just looking at overall cost of care for all patients. This could also lead to discussions about internal cost structure for staffing, equipment, and supplies. Finally, there is an opportunity for institutions to more broadly collect data on colonoscopy care, including the quality metrics mentioned above, alongside cost data, which are both incorporated into the MIPS composite score for reimbursement adjustment.

Future directions

Upcoming cost measures

Clinical subcommittees have chosen the next two GI-related cost measures to develop: femoral or inguinal hernia repair and inpatient GI bleeding. As major stakeholders in care providers for patients hospitalized with GI bleeding, the latter cost measure will impact how patients are characterized and which services are included in calculating the cost of their care. The current clinical committee members narrowed the cohort to those with lower GI bleeding, given varied outcomes in metrics such as mortality and readmission rates among the larger cohort of GI bleeding (10). Although gastroenterologists often lead management of patients in these cases, depending which services the beneficiary receives during a hospitalization, the cost attribution may fall on internists/hospitalists, gastroenterologists, interventional radiologists, or surgeons. Therefore, the diverse stakeholder involvement in the clinical subcommittees is essential to understanding the factors that drive cost of care. These two measures are still in the development phase and underwent field testing and public comment periods in October 2018.

Impact on physician payment

The episode-based cost measures were not incorporated in the 2017 or 2018 MIPS performance years. Therefore, many providers are not yet facing a substantial change in revenue as a result of the Screening/Surveillance Colonoscopy cost measure, regardless of their performance. Moving forward, this measure will be incorporated into MIPS in 2019, and will impact providers' cost scores. Determining how much of the cost score is driven by the Screening/Surveillance Colonoscopy cost measure will depend on whether providers meet the minimum case volume threshold, and if they report on other cost measures such as Total Per Capita Cost (TPCC) and Medicare Spending Per Beneficiary (MSPB) which also impact the total cost score. For 2019, the final weight for the cost performance category is 15% of a clinician's total MIPS score, and ultimately this overall has a relatively negligible impact on total clinician reimbursement (11). Over time, the overall MIPS composite scores can result in a +/-4% payment adjustment, and with time this percentage will increase to represent a larger share of physician payment (+/-9% in 2022 and onward). Hopefully, in the interim, any concerns or issues realized with implementation of these cost measures are improved and adjusted in order to ensure appropriate alignment of cost and quality incentives.

Conclusion

These cost measures are happening in Medicare, and there will likely be similar measures or bundled payments in commercial payer populations. There is an opportunity for gastroenterologists to better understand and participate more actively in these measures. New strategies to maximize quality and reduce cost may emerge, as financial incentives arise in these new cost measures and payment models.

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Table 1:

Screening/Surveillance Colonoscopy Cost Measure

Included patients	- Patients at average risk for colon cancer screening. - Patients must be enrolled in Medicare Parts A (inpatient) and B (outpatient) - Colonoscopies done for screening or surveillance at ambulatory surgical centers (ASC), hospital outpatient department (HOPD), ambulatory/office-based care, community hospital, hospital inpatient units, and acute care facilities. - Eligible cases are identified using CPT procedure codes and unique provider numbers on claims
Notable exclusion criteria	- Patients with inflammatory bowel disease (IBD) as they are not average risk - Colonoscopies in which endoscopic mucosal resection was performed - Cases in which esophagogastroduodenoscopy (EGD) is performed in the same session
Time frame that gastroenterologists are held responsible for associated patient costs	- For this cost measure, providers are not responsible for any events that occur prior to the colonoscopy - After the colonoscopy, providers are responsible for some costs that occur within 14 days of the procedure
Risk-adjustment	- CMS' Hierarchical Condition Category (HCC), which includes medical conditions that are shown in a general population to impact cost of care such as diabetes, chronic obstructive pulmonary disease (COPD), and heart failure - Additional risk adjusters including outpatient use of anticoagulation prior to colonoscopy and history of anesthesia difficulties were also included
Cost measure calculation	- Medicare calculates and compares patients' expected cost with the actual cost during the episode window in order to factor into bonus or penalty from MIPS