Medicare's Revaluation of Gastrointestinal Endoscopic Procedures: Implications for Academic and Community-Based Practices

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No sentient gastroenterologist has missed the fact that over the past 3 years, Medicare revalued our endoscopy codes. The impact of those reimbursement changes has been felt both by community gastroenterologists and those practicing in academic centers. Impacts are different, however, because funds flow, opportunities for ancillary income and compensation formulas all are different for private versus academic physicians. In this month's Road Ahead column, I have invited leaders from both camps (private practice and academic GI) to describe how reduced procedural reimbursement is affecting their practices. I was impressed and surprised at the level of detail and analysis provided by Drs Dorn and Vesy. There are few other sources of financial data that are embedded in real world experience. We all are concerned about our futures, and this article should spur us into serious discussions about practice strategies going forward. As I wrote in a recent article in Gastroenterology *(2016;150:295–299), this is "No Time for WIMPs."*

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Gastroenterology practices generate the bulk of their revenue from endoscopic procedures. Over the past decade the professional fees Medicare pays for these procedures have generally declined. Meanwhile associated hospital outpatient facility fees have increased while ambulatory surgery center (ASC) fees remain below 2007 levels. This article surveys these changes and examines their significant impact on academic and private gastroenterology practices.

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Professional Fees for Endoscopic Procedures

Since 1992 physician professional fees have been linked to the Medicare Physician Fee Schedule, which assigns each service a certain number of relative value units (RVUs). First, the work RVU (wRVU) is based on the estimated physician time, mental effort, technical skill, and psychological stress required to provide a service. Second, a practice expense RVU (PE RVU) reflects the direct and indirect costs of providing the service. For procedures performed in office-based settings the PE RVU includes rent, nonclinician staff, equipment, and supplies, on average amounting to 44% of the total RVU. For procedures performed in hospital outpatient departments (HOPDs) and ASCs the PE RVU is much lower, because most costs are incurred by the facility (which receives a separate facility fee), rather than the physician practice. Third, a small proportion of the overall RVU is linked to malpractice insurance costs (MP RVU). The RVU components are geographically adjusted, combined, and then multiplied by a conversion factor (CF; which in 2016 is $35.80) to determine actual Medicare payment (Payment = [wRVU + PE RVU + MP RVU] × CF).[1]

To address potential distortions in this physician fee schedule, The Affordable Care Act directed the Secretary of Health and Human Services to establish a formal process to review potentially misvalued procedure codes. Between 2012 and 2014 multiple gastroenterological and surgical societies surveyed practicing physicians on the physician

Abbreviations used in this paper: APC, ambulatory payment classification; ASC, ambulatory surgery center; CF, conversion factor; CMS, Centers for Medicare and Medicaid Services; GI, gastrointestinal; HOPD, hospital outpatient department; MP RVU, malpractice relative value units; OPPS, outpatient prospective payment system; PE RVU, practice expense relative value units; RVU, relative value units; TDDC, Texas Digestive Disease Consultants; wRVU, work relative value units.

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© 2016 by the AGA Institute
1542-3565/$36.00
http://dx.doi.org/10.1016/j.cgh.2016.03.032

work, time, and intensity required to perform more than 120 services in question, including esophagoscopy, esophagogastroduodenoscopy, endoscopic retrograde cholangiopancreatography, flexible sigmoidoscopy and ileoscopy, pouchoscopy, and colonoscopy. At the same time, these societies assembled an expert panel of practicing physicians to determine the practice expenses associated with these procedures. The societies analyzed the results and presented recommendations to the American Medical Association/Specialty Society Relative Value Scale Update Committee, which, in turn, presented their recommendations to Centers for Medicare and Medicaid Services (CMS).[2] In 2014 CMS accepted approximately three-quarters of the Relative Value Scale Update Committee's recommendations, ultimately decreasing wRVUs, increasing PE RVUs for procedures performed in office-based settings, and leaving MP RVUs unchanged for most upper endoscopy and endoscopic retrograde cholangiopancreatography procedures. These changes translated into significant 2015 payment reductions for esophagoscopy and esophagogastroduodenoscopy (4%–42%), endoscopic ultrasound (10%–35%), and endoscopic retrograde cholangiopancreatography (0%–37%) performed within facilities, with less effect for those performed in office-based settings. At that time, "in light of the substantial nature of [the colonoscopy] code revision and its relationship to the policies on moderate sedation," CMS delayed revaluation of the lower gastrointestinal (GI) endoscopy codes.[3] This reprieve is now over: the 2016 Medicare Physician Fee Schedule Final Rule includes up to 17% cuts (12% on average) to the wRVU associated with these lower GI procedures (Table 1). For office-based procedures (but not facility-based procedures) these wRVU cuts are buffered (and sometimes offset) by general increases in PE RVUs.

Facility Fees for Endoscopic Procedures

Compared with the small percentage of endoscopic procedures that are performed in office-based settings, those performed in HOPDs and ASCs entail a lower professional fee plus a separate facility fee. Since 2000 CMS has paid for services provided in HOPDs using the outpatient prospective payment system (OPPS). Clinical services are first classified into ambulatory payment classifications (APC) on the basis of clinical and cost similarity. Next, services within an APC are assigned a single relative payment rate, which is linked to the resources required to perform the service. The APC payment rate is geographically adjusted and then multiplied by a CF to determine an actual dollar amount.[4]

Since 2008, CMS has used a nearly identical mechanism to pay for facility services provided in ASCs. Services are classified using the same APCs and same relative weights as the OPPS. The difference is that the ASC CF is less than the OPPS CF (the 2016 ASC CF is 58% of the OPPS CF), translating into lower dollar payments for ASC services.[5] Of note, in 2008 ASC rates were cut significantly when CMS adopted this methodology for

Table 1. National Professional Fees for Common Upper and Lower GI Procedures Performed in HOPDs and ASCs Since 2010

HCPCS code	Description	2010 payment[a]	Equivalent to 2015 real dollars (CPI)[b]	2016 payment[a]	Dollar change	Percent change	Real dollars (CPI) change	Real dollars (CPI) percent change
45378	Diagnostic colonoscopy	$219	$238	$200	($19)	−9	($38)	−16
45380	Colonoscopy and biopsy	$263	$286	$217	($46)	−17	($69)	−24
45385	Lesion removal colonoscopy	$312	$340	$274	($38)	−12	($66)	−19
G0105	Screening colonoscopy, high risk	$219	$238	$200	($19)	−9	($38)	−16
G0121	Screening colonoscopy, low risk	$219	$238	$200	($19)	−9	($38)	−16
45330	Diagnostic sigmoidoscopy	$62	$67	$58	($4)	−6	($9)	−13
45331	Sigmoidoscopy and biopsy	$75	$82	$76	$1	1	($6)	−7
43235	EGD diagnostic	$147	$160	$135	($12)	−8	($25)	−16
43239	EGD with biopsy	$173	$188	$152	($21)	−12	($36)	−19
43255	EGD with control of bleeding	$287	$312	$217	($70)	−24	($95)	−30

CPI, Consumer Price Index; EGD, esophagogastroduodenoscopy; HCPCS, Healthcare Common Procedure Coding System.
[a]Available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/'lookup/index.html.
[b]Available at: http://www.bls.gov/data/inflation_calculator.htm. Based on the CPI for 2015 (2016 CPI data were not available at the time of publication). For instance, $238 in 2015 has the same purchasing power (real dollars) as $219 in 2010. Consequently, for Code 45378 the 9% reduction translates into a 16% reduction in real dollars.

determining ASC facility fees (previously ASC rates were approximately 85% of HOPD rates).

CMS reviews the APCs and their relative weights annually, and may adjust how specific services are classified and how APCs are weighed. Since 2006 HOPD rates for the 10 common procedures listed in Table 1 have increased by 26%–93% real (ie, Consumer Price Index adjusted) dollars. Meanwhile, given the steep 2008 ASC fee cuts the 2016 ASC fees are still significantly lower than they were 1 decade ago, especially when accounting for inflation. In fact, ASC fees for the most common procedures have decreased by 20% real dollars (Supplementary Tables 1 and 2).

Putting These Changes in Context

It is important to consider these changes within a broader context. First, as discussed later, the full economic impact of these changes on an individual gastroenterology practice depends on where it performs its services and whether it collects associated facility fees, and fees for anesthesia and pathology services. Second, the Medicare population is growing by more than 10,000 people each day.[6] Third, beyond Medicare, most commercial insurers peg their reimbursement rates to a percentage of the Medicare Fee Schedule. Although the details of specific contracts vary, gastroenterologists should expect to see commercial rates move in a similar direction within the next 1–2 years. Fourth, in the 2016 Fee Schedule CMS described its future intention to remove the value of moderate sedation from all GI procedures valued with moderate sedation inherent to the procedure. The more that moderate sedation is ultimately valued the less that endoscopic procedures will be valued. Consequently, gastroenterologists who rely on anesthesiology professionals to sedate their patients will receive less revenue per procedure. Finally, the 2015 Medicare Access and Children's Health Insurance Program Reauthorization Act links a higher proportion of these dwindling fee-for-service payments to performance. Starting in 2018 physicians who elect to remain on a fee-for-service tract will receive a composite Merit-Based Incentive Payment System score that will translate into either performance bonuses or penalties (as much as 4% in 2019 and going up to 9% in 2022). Alternatively, providers who "sufficiently" participate in "2-sided" (ie, risk-bearing) alternative payment models (eg, bundled payments and accountable care organizations) instead of fee-for-service will receive 5% across-the-board bonuses. In sum, it is possible that fee-for-service payments may eventually become so unattractive that many gastroenterologists decide (or hope) to move to alternative payment models that combine both professional and facility fees, such as the CMS now mandatory Comprehensive Care for Joint Replacement program.[7]

Impact on Academic Practices

For most academic gastroenterology practices, clinical revenue far exceeds all other sources of funding, including research grants, teaching support, philanthropy, and partnerships with industry. Although a select few academic GI divisions have managed to build their own ASCs to share facility fees, for most academic practices clinical revenue comes solely from the professional fees for endoscopic procedures and, less so, office and hospital-based consultations and management of established patients.[8] Thus, steep cuts to professional fees for endoscopic procedures, the leading source of overall revenue, will severely strain most academic gastroenterology practices.

In one of our practices (SDD), the 10 common procedures listed in Table 1 accounted for 27% of our total direct clinical revenue over the past year. Roughly one-fourth of our patients are Medicare beneficiaries. Assuming no change in volume, the 2016 fee schedule cuts will amount to a 0.9% drop in direct clinical revenue. If all other payers follow with identical cuts then direct clinical revenue will drop by 3.7%. Although our practice is fortunate to have other well-developed clinical and nonclinical revenue streams, these cuts are not insignificant.

How can academic practices continue to provide accessible clinical care in the face of these fee cuts? It can help to first consider how revenue is distributed for a Medicare beneficiary who undergoes a diagnostic colonoscopy with biopsy to evaluate unexplained diarrhea in an academic medical center's hospital-based facility. The academic gastroenterologist receives $212 (CPT 45380). From this $212 the academic gastroenterology practice must pay assessments to various entities (sometimes including the School of Medicine, Department of Medicine, and faculty practice plan) that may amount to more than 30% of total revenue. The roughly $150 that remains is used to pay faculty member salaries (the median salary for an academic gastroenterologist is $300,000[9]) and benefits (estimated at $74,000/year); MP insurance (estimated at $2275/year, higher in certain parts of the United States); and overhead for support staff, supplies, and other expenses (estimated at $50,550/year). Thus, a purely clinical academic gastroenterologist who is paid at

the Medical Group Management Association median must generate $610,179 in preassessment revenue. If this hypothetical academic gastroenterologist solely treated Medicare beneficiaries, at $35.82 per RVU he or she would need to generate a staggering 17,035 RVUs per year, an amount that far exceeds the Medical Group Management Association median (6445) and 90th percentile (10,991) for academic gastroenterologists. Of course, real-world academic gastroenterologists also treat commercially insured patients and many spend time on nonclinical activities (although clinical income typically supports time devoted to research and teaching, not vice versa). Still, this example highlights a clear fact: academic gastroenterology practices take a major financial loss delivering services to Medicare beneficiaries. Meanwhile, the HOPD charges more than $2200 for the procedure. Although it only receives roughly $752 facility fee from Medicare (Disproportionate Share Hospitals and NCI Cancer Centers receive more), with a cost-to-charge ratio of roughly 0.2, revenue still clearly exceeds expenses. Finally, the anesthesia professional (if any) receives roughly $198 (CPT 00810) and the pathologist $74 (CPT 88305).

Although some may argue that academic gastroenterologists should simply accept a pay cut, lower salaries may drive many away from academia. To hire enough new (or even maintain enough existing) faculty members to maintain and grow volume, academic gastroenterology practices must find ways to supplement declining professional fees. One option is for academic practices to open their own ASCs, either alone or jointly with their health care system. But this assumes, often erroneously, that the health care system is willing to share facility fees. A second option is to develop incentive programs that transfer revenue from the health care system to the physicians. Importantly, these must be at fair market value and for nonemployed physicians cannot be linked to volume.[10] Examples include medical directorships and non-volume-based performance bonuses. A third option is to consider alternative payment models, such as bundled payments that include a single lump sum payment for both professional and facility fees. The practice and health system then negotiates how the bundle is shared. Bundles should motivate hospitals and academic practices to work together to improve care and reduce overall expenses. Along these lines, CMS recently announced the Comprehensive Care for Joint Replacement Program under which hospitals and physicians in 75 locations will be required to participate. Although the American Gastroenterological Association recently published a bundled payment framework for screening and surveillance colonoscopy,[11] bundles for other endoscopic procedures remain to be defined. But, a clearly defined, attractively priced, and skillfully negotiated bundle could be a means for redistributing revenue in ways that are more favorable to academic practices. No matter the approach, it is critical for academic gastroenterology practices and their health care systems to align their goals and integrate their services. But this is easier said than done.

Impact on Private Gastroenterology Practices

The impact of these professional and facility fee changes on private practice depends on the practice's payer mix, and whether it owns an ASC and directly provides anesthesia and pathology services. Consider Texas Digestive Disease Consultants (TDDC), an 80-gastroenterologist practice that provides GI care and endoscopic procedures throughout north and central Texas. TDDC revenue comes solely from professional fees generated by gastroenterologists and the pathologists the practice employs. TDDC operating expenses includes employee salaries and benefits, rent, and taxes. Based on an expected work year of 2080 hours, each TDDC gastroenterologist must generate $219 per hour to cover practice expenses. Physicians receive income only after practice revenue exceeds $219 per hour.

In the 2016 Medicare Physician Fee Schedule, colonoscopy code 45387 is assigned 3.36 RVUs, based on 67 minutes in total time. Based on this information, 2016 CMS payment for a screening colonoscopy ($200) will result in a loss of $45 in practice revenue over expenses. Across the TDDC practices in 2015, CMS patients represented 29% of all colonoscopies performed, but only 11% of revenue from those procedures. In aggregate, assuming no change in volume, the 2016 fee schedule cuts will translate into $5472 less physician income for each gastroenterologist. If all other payers follow with identical cuts then each gastroenterologist would forfeit $50,896 of income.

For pathology services, code 88305 reimburses a global service per specimen. The average number of specimens per outpatient GI procedure at TDDC is 1.5. Based on CMS' per specimen payment of $73 (down from $107 in 2012), average pathology reimbursement per a CMS endoscopic procedure is $110.

What about facility fees? Many TDDC physicians separately own and operate ASCs and anesthesia practices. Because the physician owners of these facilities funded, developed, and operate these facilities on their own, any revenue over expenses from these facilities flows directly to the ASC, rather than TDDC. Since 2008 when ASC payments were severely reduced, ASC revenue

over expenses for a Medicare colonoscopy has ranged from $0 to $70. For anesthesia services, the ASC receives approximately $159 per screening colonoscopy, which is not enough to actually cover the costs of providing anesthesia services. In sum, when TDCC gastroenterologists perform colonoscopies on Medicare patients at an HOPD the physician loses money. When the same procedure is performed at an ASC the physician barely break even.

How can private practice gastroenterologists respond to these fee cuts? First, some gastroenterologists may be forced to accept lower salaries. Second, practices can offset fee cuts by improving efficiency and reducing overall cost of care, assuming they are not already maximally efficient. Third, some private practices can increase Medicare professional payments by reclassifying as nonparticipating with Medicare. Nonparticipating status allows practices to charge the patient up to approximately 109.25% of the Medicare approved rate, with the patient submitting the claim directly to Medicare ("balance billing"). The downside is that patients shoulder the additional cost and may potentially decide to seek care elsewhere. Fourth, private practices should explore alternative payment models, such as bundled payment as described previously, either on their own or by partnering with local health systems to share risk. Finally, some practices may sell equity to and become employees of local health systems.

Conclusions

Changes to Medicare professional and facility fee payments for endoscopic procedure significantly impact academic and private gastroenterology practices. Dwindling professional fees alongside increasing HOPD facility fees make academic gastroenterology practices increasingly reliant on support from their parent health care systems. Like academic practices, private gastroenterology practices experience a financial loss when treating Medicare beneficiaries. Academic and private gastroenterology practices should consider several potential responses. Although beyond the scope of this article, all practices must continuously strive to improve the quality and reduce the costs of the endoscopic procedures they perform.

Supplementary Material

Note: To access the supplementary material accompanying this article, visit the online version of *Clinical Gastroenterology and Hepatology* at www.cghjournal.org, and at http://dx.doi.org/10.1016/j.cgh.2016.03.032.

References

1. MEDPAC. Payment basics: physician and other health professional payment system. Washington, DC: Medicare Payment Advisory Commission, 2015.
2. Mehta SJ, Brill JV. What is the RUC and how does it impact gastroenterology? Clin Gastroenterol Hepatol 2014;12:1208–1211.
3. American College of Gastroenterology, American Gastroenterological Association, American Society for Gastrointestinal Endoscopy. Key Provisions in the CY 2015 Medicare Physician Fee Schedule Final Rule, 2015. Available at: http://gi.org/wp-content/uploads/2014/11/Tri-Soc_CY15_MPFS_Final_Rule_Summary.pdf.
4. MEDPAC. Payment basics: outpatient hospital services payment system. Washington, DC: Medicare Payment Advisory Commission, 2015.
5. MEDPAC. Payment basics: ambulatory surgery center services payment system. Washington, DC: Medicare Payment Advisory Commission, 2015.
6. Diamond D. 10,000 people are now enrolling in Medicare—every day. Forbes, 2015. Available at: http://www.forbes.com/sites/dandiamond/2015/07/13/aging-in-america-10000-people-enroll-in-medicare-every-day/#5177f1f35e07. Accessed January 3, 2016.
7. Mechanic RE. Mandatory Medicare bundled payment: is it ready for prime time? N Engl J Med 2015;373:1291–1293.
8. Rustgi AK, Allen JI. The house of gastrointestinal medicine: how academic medical centers can build a sustainable economic clinical model. Clin Gastroenterol Hepatol 2013;11:1370–1373.
9. Academic Practice Compensation and Production Report. Englewood, Colorado: Medical Group Management Assocation, 2015.
10. Becker S, Townshend G, Carnell H, et al. Physician compensation: 10 core legal and regulatory concepts. Becker's Hospital Review Available at: http://www.beckershospitalreview.com/legal-regulatory-issues/physician-compensation-10-core-legal-and-regulatory-concepts.html. Accessed January 20, 2016.
11. Brill JV, Jain R, Margolis PS, et al. A bundled payment framework for colonoscopy performed for colorectal cancer screening or surveillance. Gastroenterology 2014;146:849–853 e9.

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Acknowledgments
The authors thank Leslie Narramore, MPA, for her insights and help with reimbursement data. They also thank Bryan Rhodes for providing financial data and Shivan Mehta, MD, MBA, for his feedback on the Relative Value Scale Update Committee process.

Conflicts of interest
The authors disclose no conflicts.

Supplementary Table 1. HOPD Facility Fees for Common Upper and Lower GI Procedures Since 2006

HCPCS code	Description	2006 payment[a]	CPI Equivalent to 2015 real dollars[b]	2016 payment[a]	Dollar change	Percent change	Real dollars (CPI) change	Real dollars (CPI) percent change
45378	Diagnostic colonoscopy	$509	$600	$753	$244	48	$153	26
45380	Colonoscopy and biopsy	$509	$600	$753	$244	48	$153	26
45385	Lesion removal colonoscopy	$509	$600	$753	$244	48	$153	26
G0105	Screening colonoscopy, high risk	$450	$529	$753	$303	67	$224	42
G0121	Screening colonoscopy, low risk	$450	$529	$753	$303	67	$224	42
45330	Diagnostic sigmoidoscopy	$280	$330	$492	$212	76	$162	49
45331	Sigmoidoscopy and biopsy	$280	$330	$492	$212	76	$162	49
43235	EGD diagnostic	$480	$565	$745	$265	55	$180	32
43239	EGD with biopsy	$480	$565	$745	$265	55	$180	32
43255	EGD with control of bleeding	$480	$565	$1088	$608	127	$523	93

CPI, Consumer Price Index; EGD, esophagogastroduodenoscopy; HCPCS, Healthcare Common Procedure Coding System.
[a]Available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalOutpatientPPS/Addendum-A-and-Addendum-B-Updates.html#.
[b]Available at: http://www.bls.gov/data/inflation_calculator.htm. Based on the CPI for 2015 (2016 CPI data were not available at the time of publication).

Supplementary Table 2. ASC Facility Fees for Common Upper and Lower GI Procedures Since 2006

HCPCS code	Description	2006 payment[a]	CPI equivalent to 2015 real dollars[b]	2016 payment[c]	Dollar change	Percent change	Real dollars (CPI) change	Real dollars (CPI) percent change
45378	Diagnostic colonoscopy	$446	$525	$421	($25)	−6	($104)	−20
45380	Colonoscopy and biopsy	$446	$525	$421	($25)	−6	($104)	−20
45385	Lesion removal colonoscopy	$446	$525	$421	($25)	−6	($104)	−20
G0105	Screening colonoscopy, high risk	$446	$525	$421	($25)	−6	($104)	−20
G0121	Screening colonoscopy, low risk	$446	$525	$421	($25)	−6	($104)	−20
45330	Diagnostic sigmoidoscopy	$333	$392	$136	($197)	−59	($256)	−65
45331	Sigmoidoscopy and biopsy	$333	$392	$275	($58)	−17	($117)	−30
43235	EGD diagnostic	$333	$392	$417	$84	25	$25	6
43239	EGD with biopsy	$446	$525	$417	($29)	−7	($108)	−21
43255	EGD with control of bleeding	$446	$525	$608	$162	36	$83	16

CPI, Consumer Price Index; EGD, esophagogastroduodenoscopy; HCPCS, Healthcare Common Procedure Coding System.
[a]Available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ASCPayment/archive.html.
[b]Available at: http://www.bls.gov/data/inflation_calculator.htm. Based on the CPI for 2015 (2016 CPI data were not available at the time of publication).
[c]Available at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ASCPayment/ASC-Regulations-and-Notices.html.