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White Paper on MACRA: Past, Present and Future

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Abstract

Introduction: The U.S. health care system is undergoing significant change as demands to improve medical quality and reduce health care costs expand. U.S. health care spending accounted for 16.9% of gross domestic product in 2013, the highest amount compared to other developed countries. On April 16, 2015 the U.S. Congress passed a historical piece of bipartisan legislation, the Medicare Access and CHIP (Children's Health Insurance Program) Reauthorization Act (MACRA). We describe the events leading up to the passage of MACRA, review the various components of MACRA and describe how MACRA will likely impact physician practices. We also suggest how best to prepare for compliance with the Centers for Medicare & Medicaid Services (CMS) MACRA final rule with comment period, which was released on October 14, 2016.

Methods: A literature review of the quality measures defined by CMS before the passage of MACRA was performed as well as a review of the current MACRA final rule (Quality Payment Program) and related CMS commentary. An expert panel of health care consultants provided guidance concerning compliance with the final rule. Furthermore, case studies are described as examples to assist the urological community in meeting the expectations of MACRA.

Results: The Surgical Care Improvement Project process measures (current quality) for urological surgery are reviewed and their impact on surgical site infections is described. Details of MACRA and its Quality Payment Program framework, the Merit-based Incentive Payment System and Alternative Payment Models, are also described. A detailed understanding of and preparation for the implementation of MACRA will help physicians comply with the regulations which offer future opportunities for better reimbursement. Opportunities to comply with MACRA through Advanced Alternative Payment Models may mitigate the complexity of reporting under the alternate Merit-based Incentive Payment System. The development of bundled payment procedures in urology, similar to the Comprehensive Care for Joint Replacement program in orthopedics, may eventually qualify for Advanced Alternative Payment Model status.

Conclusions: Physicians should be proactive, and lead the effort to improve medical quality and control health care related costs, the primary goals of MACRA. Academic and community urologists should collaborate and define optimal quality measures that are meaningful and relevant to the practice of urology, which is currently being done by the AUA (American Urological Association) Quality Registry program. The specialty of urology would benefit from a concerted effort to

Abbreviations and Acronyms

ACI = Advancing Care Information

ACO = Accountable Care Organization

APM = Alternative Payment Model

AQUA = AUA Quality

CEHRT = certified electronic health record technology

CIN = Clinically Integrated Network

CMS = Centers for Medicare & Medicaid Services

EHR = electronic health record

IA = Improvement Activities

IOM = Institute of Medicine

MACRA = Medicare Access and CHIP Reauthorization Act of 2015

MIPS = Merit-based Incentive Payment System

PQRS = Physician Quality Reporting System

QP = qualifying APM participant

QPP = Quality Payment Program

SCIP = Surgical Care Improvement Project

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develop bundled payment models for a variety of urological procedures and seek CMS recognition as qualifying for Advanced Alternative Payment Models.

Key Words: quality of health care; cost control; Medicare Access and CHIP Reauthorization Act of 2015; reimbursement, incentive; health expenditures

On April 16, 2015 Congress passed the Medicare Access and CHIP (Children's Health Insurance Program) Reauthorization Act of 2015 (MACRA), a historical piece of bipartisan legislation.¹ Subsequently on October 14, 2016 the Department of Health and Human Services, Centers for Medicare & Medicaid Services, the regulatory agency in charge of implementing and enforcing MACRA, released a final rule with comment period implementing the provisions of MACRA.²

MACRA repeals the highly criticized Sustainable Growth Rate formula and its Medicare Physician Fee Schedule cuts, replacing it with the Quality Payment Program, a new model that focuses on quality and cost measurement, reporting and payment adjustments.² For Medicare Part B eligible clinicians, including physicians, physician assistants, nurse practitioners, clinical nurse specialists and certified registered nurse anesthetists, the QPP involves the payment tracks of 1) the Merit-based Incentive Payment System and 2) Advanced Alternative Payment Models (see figure).²

Previously, Medicare assessed provider quality and cost of care using the 1) Physician Quality Reporting System, 2) Medicare EHR Incentive Program (meaningful use) and 3) Value-Based Payment Modifier. The MIPS reimbursement track consolidates these 3 programs into a single framework and eligible clinicians participating in the MIPS track will receive Medicare payment adjustments based on their performance relative to other participating providers.

The second reimbursement pathway under the QPP will be available to clinicians who participate in Advanced APMs. Those who participate in Advanced APMs (qualifying APM participants or QPs) will not be subject to MIPS and will be eligible to receive bonus payments beginning in 2019 (Appendix 1).

In recognizing the wide diversity of clinicians set to participate in the QPP and in an attempt to ease the concerns of certain stakeholders, CMS presented 4 MACRA "pick your pace" compliance options for the first performance year (transitional year) beginning January 1, 2017. Choosing 1 option from among test, partial, full or Advanced APM will ensure that eligible clinicians do not receive negative payment adjustments in 2019.

For the test option, as long as a MIPS eligible clinician submits some 2017 data (1 quality measure or 1 Improvement Activity), s/he will avoid a negative payment

adjustment. This option is designed to allow clinicians to test their systems and prepare for broader participation in future performance years. Failing to submit the minimum data will result in a 4% negative adjustment.

With the partial option, MIPS eligible clinicians who submit 2017 data for a reduced period (less than the full 2017 performance year but for at least a full 90-day period) may earn a neutral or small positive payment adjustment.

For the full option, MIPS eligible clinicians who submit 2017 data for a full calendar year beginning on January 1, 2017 may qualify for a modest positive payment adjustment. In addition, those who are deemed exceptional performers will be eligible to receive additional positive adjustments.

Finally, for the Advanced APM option, qualifying Advanced APM participants are eligible for a 5% bonus incentive payment in 2019.

Ultimately MACRA facilitates the objectives of the Department of Health and Human Services to achieve better patient quality and value through 2 important goals. Goal 1 is that 30% of Medicare reimbursement is tied to quality or value via APMs by the end of 2016 and 50% by the end of 2018. Goal 2 is that 85% of Medicare fee-for-service payments are linked to quality or value by the end of 2016 and 90% by the end of 2018.³

The Past

The need to improve medical quality and reduce health care expenditures has been the driving force behind the current paradigm shift from a fee-for-service to a value based reimbursement model. There is a growing consensus that current efforts to improve value will be more successful as reform is unavoidable. In addition, technology has the potential to greatly enhance the sharing of information necessary to implement new value based reimbursement models.

Quality

A seminal report published by the IOM in 1999 citing a high rate of medical mistakes, along with other reports suggesting that quality of care in the U.S. has room for improvement, led many organizations (including the U.S. government) to demand improvement in the quality of medical care provided by the U.S. health care system.⁴ In a subsequent report

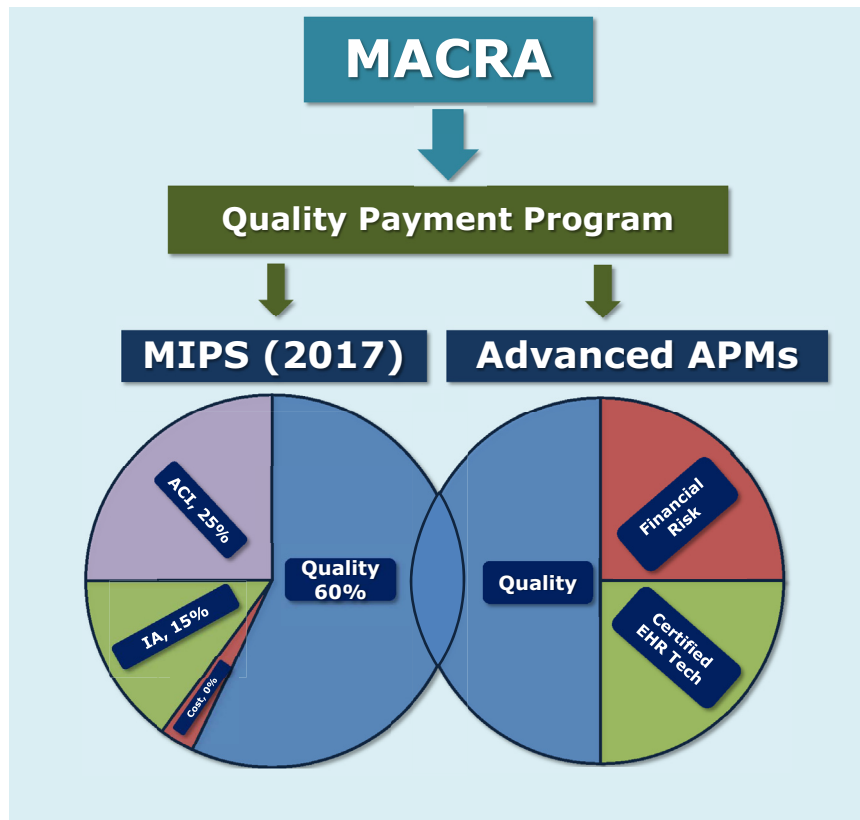


Figure. QPP tracks Merit-based Incentive Payment System and Advanced Alternative Payment Models

published in 2001 the IOM stated, “Between the health care we have and the care we could have lies not just a gap, but a chasm.”⁵

Other publications have indicated that appropriate care for common conditions is delivered approximately 50% of the time.⁶ More recently, Makary and Daniel revealed that medical errors represent the third leading cause of death in the U.S. based on their published estimated national mean death rate of 251,454 deaths from medical errors in 2013.⁷ These findings highlight continued concerns regarding medical safety and quality in U.S. hospitals.

The IOM reports have rattled the status quo and represent an epicenter of change in the U.S. health care system. A consequence of these reports has been a flurry of efforts to improve health care quality by promoting the systemic practice of evidence-based medicine and the development of practice standards. For example, process measures known as the core measures were developed for common medical conditions including heart attack, pneumonia and heart failure. Performance standards for these measures were established according to which hospital organizations would be measured, compared and paid.

Urologists have experienced similar surgical process measures in their daily practices, most notably the SCIP measures, which were designed to prevent surgical infections,

cardiovascular complications, venous thromboembolisms and respiratory complications.⁸ Adhering to these process measures is considered closely linked to achieving better outcomes. For major surgical cases it was estimated that compliance with the SCIP measures could prevent 13,027 perioperative deaths and 271,055 surgical complications.⁸

However, many physicians have questioned whether complying with the many mandatory reported processes of care correlates with better clinical outcomes. A study by Stulberg et al added fuel to the debate as their findings did not support this assertion.⁹ Hawn commented in an editorial that the report by Stulberg et al is “the largest study to date that fails to demonstrate an association between adherence to SCIP process measures and the occurrence of postoperative infections.”¹⁰

The current objectives and measures defined by MACRA appear to be more relevant in measuring medical quality and are also more aligned with physician expectations than the process measures endured during the last few decades.

Cost of Health Care

In 2012 the Organisation for Economic Co-operation and Development reported that U.S. health care spending accounted for 16.9% of gross domestic product, the highest compared to most other developed countries.¹¹

MACRA: The Present

Value represents the central theme of MACRA, with the goals of improving quality and decreasing health care costs. The Quality Payment Program facilitates this policy by aiming to improve outcomes for patients, promoting more efficient spending, decreasing provider burden (including administrative burden) and providing fairness and transparency in operations.

What Does “Medical Value” Mean?

Value refers to better quality at a lower cost. Medical quality is defined by the IOM as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”¹² Urologists have had significant experience with measuring relevant clinical outcomes and expenses. During the 1990s urologists explored opportunities to improve clinical outcomes and reduce charges for radical prostatectomy, the exact goals of today’s value based care focus.^{13,14}

In orthopedics CMS proposed a bundled payment program for lower extremity joint replacement known as the Comprehensive Care for Joint Replacement model.¹⁵ This proposed model is testing whether payment for an episode of care related to lower extremity joint replacement will improve quality of care and decrease costs. The model incorporates various NQF (National Quality Forum) quality measures, including 30-day, all cause risk standardized readmission rate after elective primary total hip and/or total knee arthroplasty (NQF #1551) and hospital level risk standardized complications after elective primary total hip and/or total knee arthroplasty (NQF #1550).¹⁶ Additionally, in an effort to further the goals of improving efficiency and quality of care, CMS will test 3 new episode payment models for Medicare beneficiaries receiving services during acute myocardial infarction, coronary artery bypass graft and surgical hip/femur fracture treatment episodes.¹⁷

The recently announced simplification and alignment of quality measures by CMS and major commercial health plans together with physician groups are progressive news. This alignment, known as the Core Quality Measures Collaborative, will hopefully reduce the labor intensive and costly efforts to report on medical quality. According to CMS, “The guiding principles used by the Collaborative in developing the core measure sets are that they be meaningful to patients, consumers, and physicians, while reducing variability in measure selection, collection burden, and cost. The goal is to establish broadly agreed upon core measure sets that could be harmonized across both commercial and government payers.”¹⁸

Andy Slavitt, CMS Acting Administrator, stated, “In the U.S. Health care system, where we are moving to measure

and pay for quality, patients and care providers deserve a uniform approach to measure quality...This agreement today will reduce unnecessary burden for physicians and accelerate the country’s movement to better quality.”¹⁹

Cost of Quality Reporting

How costly is the reporting of quality measures? Casalino et al reported an average cost of \$40,069 per physician per year for the time spent by physicians and their staff to report on quality measures.²⁰ They also commented, “While much is to be gained from quality measurement, the current system is unnecessarily costly, and greater effort is needed to standardize measures and make them easier to report.”²⁰ Hopefully the intended benefits of MACRA, which include reducing the number of quality measures, eliminating all of the EHR quality measures and offering greater flexibility in reporting, will reduce the costs of reporting in the future.

Despite some challenges posed by the new MACRA requirements, physicians and health care organizations should embrace the current paradigm shift toward a value based model. The renowned economist Michael Porter from Harvard Business School has recommended that in order for health care organizations to survive, they will need a strategy committed to providing medical value. He noted, “Having a good brand is no longer enough: patients and payers are looking for good value.”²¹

MACRA Model: Quality Payment Program

MACRA streamlines multiple quality and cost programs, allowing physicians to meet the new value based requirements by participating in 1 of 2 QPP reimbursement tracks, namely MIPS or Advanced APMs.² Some of the benefits of MACRA include reduced quality measures, proportional credit (eliminates the previous pass/fail system), elimination of all EHR quality measures, enhanced reporting flexibility for claims and registries, and greater flexibility.²

Merit-based Incentive Payment System

The new MIPS is designed to link fee-for-service payments to quality and value, and offers MIPS eligible clinicians the flexibility to select measures and activities that are most meaningful to their practices. MIPS eligible clinicians will receive from CMS a MIPS final score that weighs 4 categories on a 0 to 100-point scale, including 1) Quality (60% in 2017), 2) Advancing Care Information (25% in 2017), 3) Improvement Activities (15% in 2017) and 4) Cost (0% in 2017).

The MIPS program will reimburse MIPS eligible clinicians based on a final score that will be adjusted on a

positive, negative or neutral basis (MIPS adjustments will be budget neutral). As illustrated in table 1, the MIPS track involves a 2-year gap between the performance period and its associated adjusted reimbursement rate.

Medicare Part B clinicians who will be exempted from participating in the MIPS track include those who 1) are newly enrolled in Medicare (first year participating in Medicare Part B), 2) bill \$30,000 or less in Medicare charges or provide care to 100 or fewer Medicare beneficiaries, or 3) participate in an Advanced APM.

MIPS Quality Category

The quality category replaces the PQRS program, emphasizing patient outcomes. MIPS eligible clinicians seeking to participate fully in the MIPS program in 2017 will need to report 6 measures, including 1 outcome measure for at least a 90-day continuous period. MIPS eligible clinicians may alternatively report 1 specialty specific measure set or a subspecialty measure set if applicable.

If there are fewer than 6 measures in a measure set, the MIPS eligible clinician must report all measures in the set. However, if the measure set contains 6 or more measures, the MIPS eligible clinician will have the discretion to choose 6 or more measures to report. Regardless of the number of measures in a measure set, at least 1 outcome measure must be reported unless an outcome measure is not part of a measure set. In this case another high priority measure in the measure set may replace the absent outcome measure, such as appropriate use, patient safety, efficiency, patient experience or care coordination measure. There are also various quality reporting requirements based on the number of participants in medical groups.

The Quality category will contain more than 200 measures, with the majority tailored to specialists. Urology quality measures include existing PQRS measures, as described in Appendix 2. The AQUA Registry is a qualified clinical data registry recognized by CMS and its quality measures are currently approved by CMS (Appendix 3).²² Participation in the AQUA Registry provides a seamless approach for eligible clinicians to report quality measures to CMS.

Table 1.

Annual MIPS reimbursement adjustments

| Yr | Reimbursement Adjusted Rates (%) |
|------|--|
| 2017 | 0 (as MIPS eligible clinicians will begin submitting data) |
| 2018 | 0 (as MIPS eligible clinicians have to submit data by March 31, 2018 deadline) |
| 2019 | ±4 (based on 2017 performance) |
| 2020 | ±5 (based on 2018 performance) |
| 2021 | ±7 (based on 2019 performance) |
| 2022 | ±9 (based on 2020 performance) |

MIPS ACI Category

Advancing Care Information replaces the Medicare EHR Incentive Program (also referred to as the EHR meaningful use program). The goals of ACI are to promote the secure use and interoperability of certified EHR technology in order to improve patient care, to use fewer measures than under the EHR meaningful use program and to offer more flexibility in meeting specified criteria. Clinicians may choose measures that reflect how CEHRT is used in their day-to-day practices, with a particular emphasis on interoperability and information exchange. Unlike the past EHR meaningful use program, this performance category will not require an all-or-nothing EHR measurement approach with quarterly reporting.

The overall ACI score will be composed of a base score (50 points) and a performance score for a maximum score of 100 points. To receive the base score MIPS eligible clinicians must submit the measures 1) security risk analysis, 2) e-prescribing, 3) provide patient access, 4) send summary of care and 5) request/accept summary of care for a minimum of 90 days. All other measures are optional but MIPS eligible clinicians may choose to submit up to 9 measures for a minimum of 90 days to earn a higher score. For the first performance year MIPS eligible clinicians may be awarded bonus credit for using CEHRT and reporting data to public health or clinical data registries.

MIPS IA Category

Improvement Activities is a newly added category designed to promote better delivery of clinical care, such as care coordination, beneficiary engagement and patient safety. IA will have high and medium designated weights. To earn full credit for this category in the 2017 performance year MIPS eligible clinicians will need to complete 2 high weighted or 4 medium weighted activities. In addition, small practices (groups with fewer than 15 participants), rural practices and health professional shortage area practices only need to complete 1 high weighted or 2 medium weighted activities in 2017. Some examples of IA are expanding access to care, using clinical decision support tools and implementing surgical checklists.

MIPS Cost Category

This category replaces the cost component of the Value-Based Payment Modifier program assessing resources used in providing care. Performance under this category will be measured using Medicare adjudicated claims data and, therefore, MIPS eligible clinicians will not have any additional reporting requirements. Particularly noteworthy, the cost domain will have no weight during the first performance

year. However, beginning in 2018 the cost category weight will progressively increase to reach a 30% level. With regard to cost measures in urology, current measures include the costs of transurethral prostate resection.

Reporting Options

MIPS data reporting for performance categories may be done individually or as a group through third parties such as registries, qualified clinical data registries (ie the AQUA Registry), health information technology vendors and certified survey vendors. Some practices may elect to receive the 4% penalty in 2019 by not complying with MIPS in 2017 rather than investing in the costly needs to report. An additional downside to not reporting or achieving low MIPS performance scores relates to the final score availability for patient review on the Physician Compare website.²³ PQRS scores have been posted in 2016 and consumers are increasingly using online physician assessment scores.²⁴

Alternative Payment Models

According to CMS, APMs represent a fundamental approach in changing the U.S. health care system from volume based care to value based care. APMs may pertain to a particular clinical condition, care episode or population. Advanced APMs are a subset of APMs, and eligible clinicians who participate in an Advanced APM and meet certain criteria may qualify for Medicare incentive payments from 2019 to 2024 and will be exempt from the MIPS program.

To become a qualifying APM participant the eligible clinician must see a certain percentage of Medicare beneficiaries or receive a certain percentage of Medicare payments through an Advanced APM. The purpose of these requirements is to ensure the qualifying APM participant accepts the risk and reward for providing coordinated high quality care. Table 2 sets forth the Medicare beneficiary and payment requirements for an eligible clinician to be considered a qualifying APM participant under an Advanced APM.

The 2 types of Advanced APMs are 1) Advanced APMs and 2) Other Payer Advanced APMs. To constitute an Advanced APM, several elements must be satisfied, namely 1) participants must be required to use CEHRT, 2) payment for services must be based on quality measures comparable to the MIPS quality performance category, and 3) participants must bear risk for monetary losses of more than a nominal amount or be a Medical Home Model expanded under CMS Innovation Center authority.

To be an Other Payer Advanced APM, the payment arrangement with a payer (ie Medicaid or commercial payer) must meet similar criteria. Moreover, if an eligible clinician

Table 2.

Advanced APM qualifying patient and payment requirements

| QPP Performance Yr | % Medicare Beneficiaries Treated under Advanced APM | % Medicare Payments Received under Advanced APM |
|--------------------|---|---|
| 2017 | 20 | 25 |
| 2018 | 20 | 25 |
| 2019 | 35 | 50 |
| 2020 | 35 | 50 |
| 2021 | 50 | 75 |
| 2022 + Beyond | 50 | 75 |

participates in an Advanced APM but does not meet the qualifying APM participant thresholds, the clinician may qualify as a “Partial QP.” Partial QPs can elect to opt in and participate in MIPS or alternatively opt out of MIPS. In the latter scenario the eligible clinician may remain in the Advanced APM but would not be eligible to receive the 5% Advanced APM incentive payment.

CMS has listed several models that qualify as Advanced APMs for the 2017 performance year, including Comprehensive End Stage Renal Disease Care (2-sided risk arrangements), Comprehensive Primary Care Plus, Medicare Shared Savings Program Track 2 and Track 3, the Next Generation ACO Model, the Oncology Care Model (2-sided risk), Comprehensive Care for Joint Replacement Model (Track 1—CEHRT) and Vermont Medicare ACO Initiative (as part of the Vermont All-Payer ACO Model).

CMS will continue to announce new Advanced APMs over time (with input from the Physician-Focused Payment Model Technical Advisory Committee). For example, the Medicare ACO Track 1+ model, which allows for less financial risk than existing 2-sided risk ACO models, may be eligible for consideration as an Advanced APM in 2018. Furthermore, bundled payment programs such as those for cardiology, cardiac surgery and orthopedics may qualify as Advanced APMs, avoiding the need for eligible clinicians to participate in MIPS.²⁵ Urologists should strive to develop similar bundled payment programs for procedures including nephrectomy and radical prostatectomy in order to achieve similar recognition and avoid participation in MIPS.

Accountable Care Organizations

ACOs are networks of physicians, hospitals and other health care providers who voluntarily join together to provide coordinated high quality care to Medicare beneficiaries. ACOs have the potential to share in Medicare savings provided that high quality care is delivered in association with prudent spending of health care dollars. Examples of ACOs are the Medicare Shared Savings Program, the Advance Payment ACO Model and the Pioneer ACO Model (no longer accepting applications).

In a recent study of urologist participation in Medicare Shared Savings Program ACOs during 2012 to 2013, Hawken et al reported a relatively small (10%) formal participation by urologists.²⁶ In an editorial comment Dr. Christopher Gonzalez provided sage advice, “For APMs, it is important to note that, as of this writing, there is not one episode of care for urology. As the development of APMs and MIPS begins, the need for urologists to share their ideas, provide expert input, and respond to inquiries is critical so organized urology can successfully work with CMS to establish fair and accurate reimbursement for clinical services under this new legislation.”²⁷

Clinically Integrated Networks

A Clinically Integrated Network is a group of health care providers who join together in an effort to improve patient quality of care and reduce health care costs. If the CIN satisfies various Federal Trade Commission compliance requirements, employed and affiliated physicians can negotiate collectively with payers on reimbursement arrangements. Although a CIN is not currently considered an Advanced APM, there may be potential future avenues for the CIN to be recognized as an Advanced APM.

A CIN may help prepare and/or support eligible clinicians for MIPS and APMs in various ways. Clinically Integrated Networks require their members to adopt and report on protocols and measures that demonstrate high quality and value, including process/outcome measures and measures that describe impact on utilization and cost of care. CINs can align their clinical quality measures with those required under the MIPS track. The CIN can act as an aggregator of data which may support the reporting of those measures to CMS.

Advanced APMs provide the largest value proposition for a CIN to support qualifying APM participants. The CIN can apply to become an Advanced APM in which all of the CIN participants can qualify for the Advanced APM track. The CIN must meet the dollar/volume thresholds, and if such levels are not satisfied the CIN can create similar upside and downside arrangements with CMS, Medicaid, or commercial or other government payers to meet the thresholds. A critical element is for the CIN to apply to CMS to be considered a Medicare ACO (Track 2 or 3 or Next Generation ACO) and potentially to add other payers to meet a threshold if needed.

In both cases a CIN can also help providers access CEHRT, a criterion that all eligible clinicians must meet in order to receive points under MIPS and Advanced APMs. A CIN can assist eligible clinicians to meet partial QP status and, therefore, be exempt from MIPS.

In San Diego a CIN has been established between the University of California, San Diego and multiple

community medical groups. The CIN-urology measures developed to date include a prostate needle biopsy best practice, including a time out (process measure). The best practice is based on the known risks of prostate needle biopsy and the potential to mitigate sepsis using specific antibiotic regimens.^{28,29} A separate outcomes measure involves the adoption of active surveillance for low risk prostate cancer.³⁰ The AQUA Registry has defined a similar active surveillance quality measure (Appendix 3).²² These efforts are considered practical and relevant urology measures. Both measures fulfill the goal of improving quality and reducing cost, the ultimate goal of MACRA.

Qualifying for an Advanced APM will initially be beyond the reach of many eligible clinicians as CMS expects most to participate in the MIPS pathway. However, CMS intends for eligible clinicians to join Advanced APMs with time.

Conclusion

MACRA presents physicians with a unique opportunity to embrace the paradigm shift toward improving medical quality and value, and take the lead in collaborating with CMS to shape the future of health care reimbursement. Academic and community urologists should coordinate efforts to define meaningful and relevant quality measures in urology. The AQUA Registry is an example of an excellent initiative to achieve these goals. Procedures such as nephrectomy, prostatectomy and cystectomy might be considered for bundled payment status and potential recognition by CMS as an Advanced APM, thereby mitigating the need for MIPS participation. Physicians should begin participating in the QPP as it is currently under way, and continue developing strategies focused on health care quality improvement and cost reduction as the QPP went into effect on January 1, 2017 (Appendix 4).

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Appendix 1.

MACRA Timeline

- April 16, 2015: Congress passed MACRA.
- April 27, 2016: CMS published proposed rule.
- October 14, 2016: CMS released final rule with comment period (comment period expired December 13, 2016).
- January 1, 2017: First performance year began (eligible clinicians began measuring and reporting data).
- December 31, 2017: First performance year ends.
- March 31, 2018: Deadline for eligible clinicians to submit MIPS and Advanced APM data for 2017 performance year.
- 2019: MIPS and Advanced APM reimbursement adjustments based on 2017 performance period.

Appendix 2.

Urology Specific PQRS Measures

| Measure Title | Measure Type | National Quality Strategy Domain | Data Submission Method | PQRS |
|--|--------------|---|------------------------|------|
| Urinary Incontinence: Assessment of Presence or Absence of Urinary Incontinence in Woman Aged 65 Years and Older | Process | Effective Clinical Care | Claims, Registry | 048 |
| Urinary Incontinence: Assessment of Presence or Absence Plan of Care for Urinary Incontinence in Woman Aged 65 Years and Older | Process | Person and Caregiver-Centered Experience and Outcomes | Claims, Registry | 050 |
| Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients | Process | Efficiency and Cost Reduction | Registry, EHR | 102 |
| Prostate Cancer: Adjuvant Hormonal Therapy for High Risk or Very High Risk Prostate Cancer | Process | Effective Clinical Care | Registry | 104 |
| Biopsy Follow-Up | Process | Communication and Care Coordination | Registry | 265 |
| Patient-Centered Surgical Risk Assessment and Communication | Process | Person and Caregiver-Centered Experience and Outcomes | Registry | 358 |

Appendix 3.AUA AQUA Measures²²

| # | QCDR # | Measure | Definition | Type | Domain |
|----|---------|---|--|---------|---|
| 24 | AQUA 6 | Benign Prostate Hyperplasia: Do not order upper-tract imaging | Percentage of patients with new diagnosis of BPH who had CT abdomen, MRI abdomen, ultrasound abdomen ordered or performed | Process | Efficiency and Cost Reduction |
| 25 | AQUA 7 | Benign Prostate Hyperplasia: IPSS change 6 months after diagnosis | Percentage of patients with new diagnosis of BPH who had IPSS (international prostate symptoms score) or AUASS (American Urological Association symptom score) documented at baseline and again 6-12 months later. | Outcome | Effective Clinical Care |
| 26 | AQUA 8 | Hospital re-admissions / complications within 30 days of TRUS Biopsy | Percentage of patients who had TRUS biopsy performed who had \geq 24h after the biopsy: infection, hematuria, new antibiotic Rx after biopsy, or inpatient consultation within 30 days | Outcome | Patient Safety |
| 27 | AQUA 9 | Prostate Cancer: Use of active surveillance / watchful waiting for low-risk prostate cancer | Percentage of patients newly diagnosed with Prostate Cancer with low risk features who receive AS / WW as first management documented | Outcome | Effective Clinical Care |
| 28 | AQUA 10 | Prostate Cancer: Patient report of Urinary function after treatment | Patient report of urinary function 12months after treatment, adjusting for age/baseline | Outcome | Person & Caregiver-Centered Experience Outcomes |
| 29 | AQUA 11 | Prostate Cancer: Patient report of Sexual function after treatment | Patient report of sexual function 24 months after treatment, adjusting for nerve sparing, age/baseline, RT approach | Outcome | Person & Caregiver Centered Experience Outcomes |

Appendix 4.

Practice Positioning Guide for the Future

- Be informed as payment models change based on the value based paradigm shift.
- Focus on quality improvement and cost of total care accountability.
- Review Medicare Quality and Resource Use Reports to determine room for improvement.
- Emphasize patient satisfaction, care coordination, health information technology connectivity and data exchange. Ensure EHR vendor has the ability to securely interface with health information exchanges and registries.
- Conduct a careful security risk analysis in early 2017.
- Ensure your EHR is certified EHR technology.
- Encourage use of patient portals.
- Develop and promote clinical protocols to improve quality of care.
- Invest in clinical data analytics in order to comply with value based metrics.

Resources:

1. CMS: <https://qpp.cms.gov/>
2. American Medical Association: www.ama-assn.org/go/medicarepayment
3. California Medical Association: www.cmanet.org/macra

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Editorial Commentaries

Regardless of political or business perspectives, essentially no one believes that the rising cost of health care in the United States is sustainable. Blame can and has been placed in a number of areas, but the one lever that is clearly being pulled by both sides of the political spectrum is a transition from volume based to value based reimbursement.

The 2015 Sustainable Growth Rate fix was cheered across physician specialties, but it has taken a while for many providers to recognize that the fix of MACRA, as described in this article, is an unmistakable salvo to force that transition. Under MACRA the physicians participating in Alternative Payment Models will receive a premium over any form of volume based care. By that action Congress has spoken clearly on the inevitability of value based

reimbursement. Nevertheless, most physicians will continue in the MIPS program until the financial pain becomes unbearable. The risk in doing so goes beyond simply being paid less because the measurement period started in January 2017. That means most physicians will have a future reimbursement impact based on performance measures going on right now. Understanding this process as described in this article is essential work for us all.

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The authors have provided a timely summary of interest to all urologists. However, participation in APMs is quite challenging. CMS estimates that only 88 urologists will participate in Advanced APMs in 2017.¹ Furthermore, CMS provides little insight on how rapidly new APMs will be approved, and the ultimate threshold for APM participation of 50% of patients or 75% of revenues may be insurmountable. MIPS may be the long-term reality for most of us. This isn't necessarily bad, as MIPS may provide the greatest upside for high performing practices.

In MIPS the only component not under direct practice control is the resource use component (30% of MIPS score when fully implemented). The authors mention the transurethral prostate resection episode group but most resource use will be charged via a 2-step attribution process. This attribution process exposes specialty physicians to global care costs that are completely unrelated to services actually provided and are potentially devastating to MIPS scoring.²

Fortunately, within MACRA there exists another payment pathway, the MIPS-APM. In this model, practices participate in APMs that may not meet the Advanced APM threshold, but allow for more lenient scoring under MIPS.

MIPS-APM practices are exempt from resource use and receive 100% credit for Clinical Practice Improvement Activities, greatly enhancing the probability of economic upside.

It is important for urologists to understand and explore all options available to them. In this way practices can develop strategies to thrive in their local markets.

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