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CONCEPTS

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The future of value-based emergency care: Development of an emergency medicine MIPS value pathway framework

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Abstract

The Centers for Medicare & Medicaid Services (CMS) implemented the Merit-based Incentive Payment System (MIPS) to accelerate the transition of physician payment toward value-based care models and away from traditional fee-for-service payment programs. In recent years, CMS has sought to modify the program by developing a MIPS Value Pathway (MVP) framework intended to use existing and future physician quality and cost measures to reward value-based care delivery. This article describes the multi-step process of the MVP Task Force, convened by the American College of Emergency Physicians (ACEP) to develop an emergency medicine-specific MVP proposal informed by diverse stakeholder perceptions regarding: (1) which existing quality measures reflect high quality emergency care, and (2) the degree to which emergency clinicians can impact clinical outcomes and cost for the care domains captured by existing quality measures. The MVP Task Force synthesized stakeholder feedback and underwent a consensus-building approach to develop the "Adopting Best Practices and Promoting Patient Safety within Emergency Medicine" MVP, recently reviewed and approved by CMS for national implementation starting in 2023. Our process and findings have broad implications for clinicians, administrators, and policymakers navigating the continued transition to value-based care in conjunction with CMS's implementation of the MVP framework.

KEYWORDS
consensus building, emergency medicine, MIPS Value Pathway, quality measurement, value-based care

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1 | INTRODUCTION

Numerous policy efforts have been introduced in the past decade to transition clinicians away from traditional fee-for-service payments that promote volume toward pay-for-performance programs that promote value. Most notably, the Centers for Medicare & Medicaid Services (CMS) has attempted to accelerate this transition by designing clinician payment models that promote value by tying payments to quality measure performance. The CMS Quality Payment Program (QPP) created under the Medicare Access and CHIP Reauthorization Act of 2015 sought to advance this transition by incentivizing clinicians to deliver high-quality, high-value care.[1] The QPP includes several tracks for clinicians to choose from, with emergency clinicians most commonly reporting within the Merit-based Incentive Payment System (MIPS). Implemented in 2017, the MIPS has been criticized by emergency clinicians as confusing, lacking clinically relevant quality measures, and burdensome in reporting requirements.[2,3] In response, CMS developed the new MIPS Value Pathways (MVP) framework intended to simplify the MIPS program and move toward clinicians reporting clinically related and aligned, specialty-specific cost and quality measures to further incentivize value-based care.[4]

Although these efforts have addressed part of the value equation by promoting widespread quality measurement and reporting for payment, little progress has been made in addressing costs within clinician payment models. Not yet developed, an emergency medicine-specific MVP would seek to bring value-based care to emergency care by incorporating emergency and acute care specific quality measures alongside cost measures of salience to the emergency care setting. Many knowledge and implementation gaps remain in developing an emergency medicine-focused version of the MVP framework.[5] In practice, no cost measures exist specific to emergency medicine, and although dozens of quality measures have been developed over the past decade, none were designed with the intent of use alongside cost measures or in value-based care initiatives.[6] Within measure development efforts, the processes of developing cost measures and quality measures have historically been fragmented, making the path forward for quality and cost alignment within an emergency medicine-specific MVP ambiguous. Additional conceptual challenges have been anecdotally noted for quality measure performance in emergency care, including clinician attribution of patient clinical outcomes and costs in an environment in which patients are often cared for by multiple clinicians.[7]

Despite these measurement gaps, CMS regulations have indicated that the MVP framework would be implemented nationally across all medical specialties, creating an impetus for a rapid response by the emergency medicine specialty. Given current regulatory pressure to launch the MVP framework, little time exists to develop emergency care quality and cost measures de novo, thereby warranting an evaluation of existing measures for use within an MVP. Accordingly, in September 2020, the American College of Emergency Physicians (ACEP) convened an MVP Task Force to design an emergency medicine-specific MVP for submission to the CMS with the hopes of national implementation in the 2022 performance year. To capture the breadth of perspectives regarding quality measurement, the goals of the MVP Task Force and this concept article were to identify: (1) which existing quality measures reflect high quality emergency care and should be considered for inclusion within an emergency medicine-specific MVP, and (2) the degree to which emergency clinicians can impact clinical outcomes and cost for the care domains captured by existing quality measures. We also describe the concurrent, consensus-building approach of the MVP Task Force.

2 | ASSEMBLY OF THE TASK FORCE

The MVP Task Force consisted of a group of 6 individuals (all are listed authors) selected by ACEP leadership according to their content expertise in emergency care quality measurement, reimbursement, and value-based care. Our approach for development of an emergency medicine-specific MVP followed 2 phases: (1) seeking feedback from a diverse group of emergency medicine stakeholders, and a (2) consensus-building approach among the Task Force regarding measures and concepts to prioritize within a proposed emergency medicine-specific MVP. To elicit a broad range of perspectives on important MVP considerations, feedback was sought from members of several committees and sections within ACEP, including: Quality and Patient Safety Committee, Clinical Emergency Data Registry Committee, Reimbursement Committee, Federal Government Affairs Committee, Health Innovation Technology Committee, Emergency Medicine Practice Committee, Clinical Policies Committee, Quality and Patient Safety Section, Diversity Inclusion & Health Equity Section, Emergency Medicine Informatics Section, Emergency Medicine Practice Management & Health Policy Section, and Rural Emergency Medicine Section. With patient-centeredness identified as a "Guiding Principle" of MVP development (Table 1), we also engaged patient representative group members identified by ACEP leadership for feedback and further comment by Web conference call.

3 | IDENTIFICATION AND INITIAL RANKING OF MEASURES

A total of 36 quality measures were considered currently available for reporting by emergency clinicians and were assessed for feedback. Specifically, 12 quality measures exist within the QPP EM Specialty Set as well as 24 quality measures within CMS-approved qualified clinical data registries (QCDRs).[1,8,9] Two available fee-based QCDRs exist for emergency clinicians developed to collate health records and billing data for quality measure score reporting to CMS: the ACEP Clinical Emergency Data Registry (CEDR) and the Vituity Emergency-Clinical Performance Registry (E-CPR).

Committee and section members assessed 2 components regarding available quality measures: (1) inclusion within an emergency medicine-specific MVP, and (2) the degree to which emergency clinicians can impact clinical outcomes and cost for the care domains captured by existing quality measures. For the first component

TABLE 1 MVP Guiding Principles

MVP guiding principles
1. MVPs should consist of limited, connected complementary sets of measures and activities that are meaningful to clinicians, which will reduce clinician burden, align scoring, and lead to sufficient comparative data.
2. MVPs should include measures and activities that would result in providing comparative performance data that is valuable to patients and caregivers in evaluating clinician performance and making choices about their care; MVPs will enhance this comparative performance data as they allow subgroup reporting that comprehensively reflects the services provided by multispecialty groups.
3. MVPs should include measures selected using the "Meaningful Measures" approach and wherever possible, the patient voice must be included, to encourage performance improvements in high priority areas.
4. MVPs should reduce barriers to APM participation by including measures that are part of APMs where feasible, and by linking cost and quality measurement.
5. MVPs should support the transition to digital quality measures.

Abbreviations: APM, alternative payment model; MVP, MIPS Value Pathway.

including the 36 emergency care quality measures, we asked stakeholders to respond to the following statement: "Please rank each quality measure below based on your agreement for its inclusion in an EM-specific MVP." A 6-point Likert scale with 1 = "strongly disagree" and 6 = "strongly agree" was used. The second component focused on value and included a 3 × 3 impact matrix assessment of 14 specific care domains, grouped by expert consensus of the Task Force to include the available 36 emergency care quality measures. For each item, we asked participants to respond to the following statement: "Please choose the impact that you believe an emergency clinician can have on clinical outcome and cost for each domain. For this, think about outcome and cost within the timeframe of an acute care episode which may extend a short time period beyond the ED visit itself." For both clinical outcome and cost, participants could select "low," "moderate," or "high" for the specific care domain in question.

All MVP Task Force members had opportunities to share their thoughts regarding priorities for the development of an emergency medicine-specific MVP based on a synthesis of findings from stakeholders. Ultimately, the MVP Task Force developed possible emergency medicine-specific MVPs for consideration after grouping existing quality measures into thematically related options and relied on consensus agreement to move forward with the proposal of 1 emergency medicine-specific MVP for submission to CMS.

4 | FINDINGS FROM STAKEHOLDER ENGAGEMENT

Feedback was obtained from 119 ACEP committee and section members, offering diverse perspectives regarding the importance of specific quality measures within an emergency medicine-specific MVP and the impact an emergency clinician could have on clinical outcomes and cost. Responses to all 36 emergency care quality measures regarding agreement with inclusion in an emergency medicine-specific MVP are presented in Table 2. The highest ranked quality measures included ECPR #55 "Avoidance of long-acting or extended-release opiate prescriptions and opiate prescriptions for greater than 3 days duration for acute pain," QPP #254 "Ultrasound determination of pregnancy location for pregnant patients with abdominal pain," and ECPR #41 "Rh status evaluation and treatment of pregnant women at risk of fetal blood exposure." The lowest ranked quality measure items included ECPR #53 "Clinician reporting of loss of consciousness to state Department of Public Health or Department of Motor Vehicles," ECPR #50 "Door to diagnostic evaluation by a clinicians within 30 minutes—urgent care patients," and QPP #317 "Preventive care and screening: screening for high blood pressure and follow-up documented."

The perceived impact emergency clinicians could have on clinical outcome and cost of the 14 emergency care domains are present in Figures 1 and 2. Specifically, clinician stakeholders believed that emergency clinicians could have high impact on the clinical outcome in the Pregnancy and Opioid Use Disorder domains and low impact on the clinical outcome and cost in the Preventive Care, Timeliness and Experience of Emergency Care, and Chest Pain domains. Potentially of interest, respondents identified that emergency clinicians were anticipated to have a low impact on both the clinical outcome and cost within the Chest Pain domain. This finding likely reflects the inherit limitations of the 2 existing quality measures available that comprised that domain, including 1 addressing the avoidance of creatine kinase-MB testing and another measuring the avoidance of coagulation studies in patients presenting with chest pain without coagulopathy or bleeding.

5 | CONSENSUS BUILDING AND RECOMMENDATIONS

Aside from stakeholder feedback, MVP Task Force members weighed several additional considerations in selecting quality measures to be included within a proposed emergency medicine-specific MVP. With CMS suggesting a finite amount of quality measures to be included within proposed MVPs, Task Force members weighed 5 distinct issues. First, a particular attempt was made to include both QPP measures, reportable by any emergency clinician, as well as measures within fee-based QCDRs, which may be more specialty-specific but less accessible for reporting given their proprietary status. Second, the MVP Task Force also identified that several QPP measures within the emergency medicine Specialty Set are considered "topped out." In this case, a large

TABLE 2 Emergency physician agreement with inclusion of existing emergency care quality measures in an emergency medicine-specific MVP

Measure ID—label	Disagree[a]	Agree[a]	Mean[b]
QPP Measures			
254—Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	10	108	5.07
415—ED utilization of CT for minor blunt head trauma for patients aged ≥18 years old	20	97	4.81
416—ED utilization of CT for minor blunt head trauma for patients 2 through 17 years old	22	95	4.81
116—Avoidance of antibiotic treatment in adults with acute bronchitis	22	95	4.68
333—Computerized tomography for acute sinusitis	30	87	4.50
331—Antibiotic prescribed for acute viral sinusitis	25	93	4.48
93—Acute otitis externa: systemic antimicrobial therapy	28	89	4.37
107—Adult major depressive disorder: suicide risk assessment	32	86	4.28
66—Appropriate testing for children with pharyngitis	26	91	4.22
332—Appropriate choice of antibiotic: amoxicillin with or without clavulanate prescribed for patients with acute bacterial sinusitis	30	88	4.14
187—Stroke and stroke rehabilitation: thrombolytic therapy	42	76	3.93
317—Screening for high blood pressure and follow-up documented	73	45	3.00
QCDR Measures			
ECPR 55—Avoidance of long-acting or extended-release opiate prescriptions and opiate prescriptions for >3 days duration for acute pain	14	104	5.08
ECPR 41—Rh status evaluation and treatment of pregnant women at risk of fetal blood exposure	13	105	5.05
ECPR 46—Avoidance of opiates for low back pain or migraines	16	102	4.94
ACEP 52—Appropriate ED utilization of lumbar spine imaging for atraumatic low back pain	11	107	4.85
ECPR 39—Avoid head CT for patients with uncomplicated syncope	18	99	4.85
ACEP 55—ED utilization of CT for minor blunt head trauma for patients 2 through 17 years old	15	102	4.83
ACEP 22—Appropriate ED utilization of CT for pulmonary embolism	21	96	4.79
ACEP 57—Avoidance of opioid therapy for migraine, low back pain, dental pain	22	96	4.70
ACEP 58—Appropriate treatment for adults with upper respiratory infection	17	101	4.69
ACEP 54—Utilization of FAST exam in the ED	20	98	4.51
ECPR 51—Discharge prescription of naloxone after opioid poisoning or overdose	29	88	4.50
ACEP 31—Appropriate Foley catheter use in the ED	27	91	4.44
ACEP 53—Appropriate use of imaging for recurrent renal colic	26	91	4.42
ACEP 21—Coagulation studies in patients presenting with chest pain with no coagulopathy or bleeding	37	80	4.28
ECPR 52—Appropriate treatment of psychosis and agitation in the ED	34	84	4.25
ACEP 48—Septic shock: lactate level measurement, antibiotics ordered, and fluid resuscitation	30	88	4.17
ECPR 40—Initiation of the initial sepsis bundle	32	85	4.03
ACEP 56—Follow-up care coordination documented in discharge summary	42	76	3.94
ACEP 30—Septic shock: lactate clearance rate ≥10%	51	67	3.59
ACEP 25—Tobacco use: screening and cessation intervention for patients with asthma and COPD	64	54	3.34
ACEP 50—ED median time from ED arrival to ED departure for discharged ED patients for adult patients	66	52	3.18
ACEP 51—ED median time from ED arrival to ED departure for discharged ED patients for pediatric patients	66	52	3.16
ECPR 50—Door to diagnostic evaluation by a clinicians within 30 min: urgent care patients	76	42	2.86
ECPR 53—Clinician reporting of loss of consciousness to state Department of Public Health or Department of Motor Vehicles	88	30	2.51

Abbreviations: ACEP, American College of Emergency Physicians; COPD, chronic obstructive pulmonary disease; CT, computed tomography; ECPR, Emergency Clinical Performance Registry; FAST, focused assessment with sonography for trauma; QCDR, qualified clinical data registry; QPP, Quality Payment Program.

[a]Captures responses of "Somewhat–Strongly" agree with inclusion of the measure within an emergency medicine-specific MVP.

[b]Denotes weighted mean.

CLINICAL OUTCOME	COST: Low Impact	COST: Moderate Impact	COST: High Impact
Low Impact	- Preventive care - Chest pain - Timeliness and experience of emergency care		
Moderate Impact	- Psychiatric illness	- Low acuity infectious conditions - Trauma - Stroke - Pulmonary embolism - Sepsis - Genitourinary/renal - Back pain - Syncope	
High Impact	- Opioid use disorder	- Pregnancy	

FIGURE 1 Perceived emergency clinician impact on clinical outcome and cost of 14 clinical care domains. Clinical care domains are placed in 1 cell within the 3 × 3 impact matrix based on a plurality of physician stakeholder responses

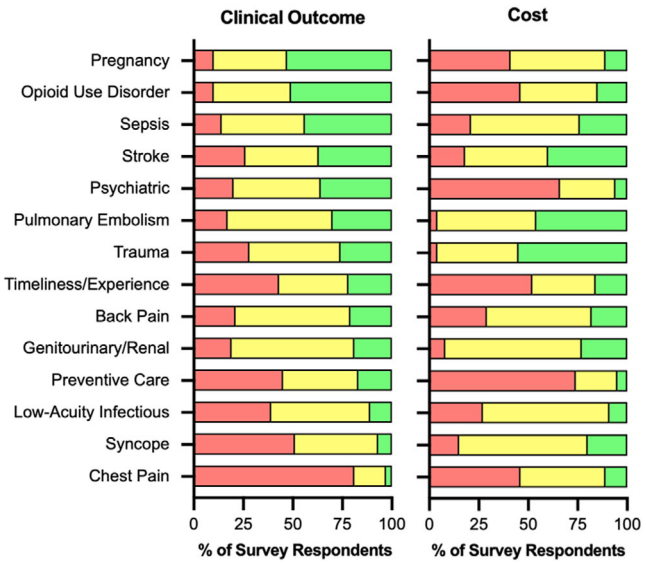

FIGURE 2 Perceived emergency clinician impact on clinical outcome and cost of 14 clinical care domains. Green represents a perceived high impact; yellow represents a perceived moderate impact; red represents a perceived low impact

majority of clinicians perform at or very near the top of the quality measure score distribution, identifying little variation for improvement and introducing concern regarding their inclusion in an emergency medicine-specific MVP. Third, the MVP Task Force identified that several emergency care quality measures assessed may depend on additional specialties aside from emergency medicine, potentially limiting the perceived impact an emergency clinician could be expected to have on the clinical outcome and cost of a clinical care domain. For example, lactate clearance in sepsis bundles may jointly depend on hospitalist or critical care colleagues, psychiatric illness evaluations are likely collaborative with psychiatry colleagues, and decisions to pursue computed tomography imaging may depend on discussions with trauma or surgical teams.

Fourth, MVP Task Force members balanced broader stakeholder reactions with several policy realities of which Task Force experts were aware. For example, despite lower scores from stakeholder feedback for emergency care quality measures within the Timeliness and Experience of Emergency Care domain, MVP Task Force members recognized the substantial alignment of these digital quality measures with MVP Guiding Principles. Finally, the specific limitations to available emergency care measures noted by the MVP Task Force included a lack of acute care episode-based cost measures, patient-reported outcome measures, and specifically digital quality measures given their difficulty in electronic health record implementation (eg, lactate clearance).

Grouping existing quality measures into thematically related options, the Task Force developed and evaluated 5 possible emergency medicine-specific MVPs (Table 3). The proposed MVPs independently included a focus on: time-critical high-acuity conditions, acute undifferentiated cardiopulmonary illnesses, undifferentiated high-risk complaints, low-acuity infectious conditions, and trauma.

The MVP Task Force selected the "Undifferentiated High-Risk Complaints" MVP as the best representation of meaningful emergency care quality measures to be considered further by CMS for implementation in future value-based care models. Within the MVP, the Task Force incorporated quantitative stakeholder feedback and weighed the 5 aforementioned distinct issues to include quality measures that:

TABLE 3 Conditions addressed and measure IDs of 5 MVPs considered by the MVP Task Force

Proposed MVP	Complaints/conditions addressed	Measure IDs
Time-critical high-acuity conditions	Stroke, myocardial infarction, sepsis	QPP 187, ACEP 30, ACEP 48, ECPR 40
Acute undifferentiated cardiopulmonary illnesses	Chest pain, pulmonary embolism	ACEP 21, ACEP 22
Undifferentiated high-risk complaints	Chest pain, abdominal pain, headache, back pain	QPP 116, QPP 254, QPP 321, QPP 331, ACEP 21, ACEP 50, ACEP 52, ECPR 46, ECPR 55
Low-acuity infectious conditions	Pharyngitis, sinusitis, bronchitis	QPP 66, QPP 93, QPP 116, QPP 331, QPP 332, QPP 333, ACEP 58
Trauma	Blunt head trauma, FAST	QPP 415, QPP 416, ACEP 54, ACEP 55

Abbreviations: ACEP, American College of Emergency Physicians; ECPR, Emergency Clinical Performance Registry; FAST, focused assessment with sonography for trauma; MVP, MIPS Value Pathways; QPP, Quality Payment Program.

TABLE 4 Characteristics of quality measures within the "undifferentiated high-risk complaints" MVP

Measure ID/title	Measure type	Collection type	"Topped Out" status[a]	Attribution concerns[b]	Frequently used measure[c]
QPP 116—Avoidance of antibiotic treatment in adults with acute bronchitis	Process	QPP	No	No	Yes
QPP254—Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	Process	QPP	Yes	No	Yes
QPP321—CAPHS for MIPS clinician/group survey	PRO-PM	CAHPS	No	No	No
QPP331—Adult sinusitis: Antibiotic prescribed for acute viral sinusitis (overuse)	Process	QPP	No	No	Yes
ACEP21—Coagulation studies in patients presenting with chest pain with no coagulopathy or bleeding	Process	QCDR	No	No	Yes
ACEP50—ED median time from ED arrival to ED departure for all adult patients	Outcome	QCDR	No	Yes; Impact of institutional boarding	Yes
ACEP52—Appropriate ED utilization of lumbar spine imaging for atraumatic low back pain	Process	QCDR	No	No	No
ECPR46—Avoidance of opiates for low back pain or migraines	Process	QCDR	No	No	No
ECPR55—Avoidance of long-acting or extended-release opiate prescriptions and opiate prescriptions for greater than 3 days duration for acute pain	Process	QCDR	No	No	No

Abbreviations: ACEP, American College of Emergency Physicians; CAHPS, Consumer Assessment of Healthcare Providers and Systems; ECPR, Emergency Clinical Performance Registry; MVP, MIPS Value Pathways; PRO-PM, patient-reported outcome-based performance measure; QCDR; QPP, Quality Payment Program; QCDR, Qualified Clinical Data Registry.

[a]Identifies quality measures in which performance is high and unvarying that meaningful distinctions and improvement in performance is difficult.[19]

[b]Conceptually noted to be a potential overlap with or dependence on additional specialties aside from emergency medicine, potentially limiting the perceived impact an emergency clinician could be expected to have on the clinical outcome.

[c]Noted if the quality measure was a top 10 frequently measure mapped by ACEP CEDR based on the number of reporting tax identification numbers.[19]

(1) offer varied reporting options for clinicians, including through the QPP or QCDRs, (2) are not "topped out," (3) minimize attribution concerns, particularly when clinical outcomes and measurement performance may be dependent on other specialties, and (4) are aligned with the MVP Guiding Principles (Table 1). The MVP is intended to improve patient outcomes and promote the transition to value-based care by allowing clinicians to focus on emergency medicine-specific quality measurement efforts previously identified to have wide variation in healthcare utilization and cost outcomes. The measure topics within the MVP are meaningful to emergency medicine clinicians because the primary conditions assessed are among the most common principal reasons for patients visiting the ED.[10] Further information is provided for the characteristics of quality measures within the "Undifferentiated High-Risk Complaints" MVP (Table 4).

6 | IMPLICATIONS AND FUTURE DIRECTIONS

These findings are the first to provide stakeholder data reflecting existing emergency care quality measures, the strengths and limitations

TABLE 5 Quality measures within the CMS final rule-approved emergency medicine MVP

The "Adopting Best Practices and Promoting Patient Safety within Emergency Medicine" MVP	
Intent: Improve patient outcomes and promote the transition to value-based care by allowing clinicians to focus on a set of emergency medicine-specific clinical conditions previously identified to have wide variation in healthcare utilization and cost outcomes	
Quality	**Improvement activities**
QPP 116—Avoidance of antibiotic treatment in adults with acute bronchitis	IA_BE_4: Engagement of patients through implementation of improvements in patient portal
QPP254—Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	IA_BE_6: Regularly assess patient experience of care and follow up on findings
QPP321—CAPHS for MIPS clinician/group survey	IA_CC_2: Implementation of improvements that contribute to more timely communication of test results
QPP331—Adult sinusitis: antibiotic prescribed for acute viral sinusitis (overuse)	IA_CC_14: Practice improvements that engage community resources to support patient health goals
QPP415—ED utilization of CT for minor blunt head trauma for patients 18 years and older	IA_PSPA_1: Participation in an AHRQ-listed patient safety organization
ACEP21—Coagulation studies in patients presenting with chest pain with no coagulopathy or bleeding	IA_PSPA_6: Consultation of the Prescription Drug Monitoring Program
ACEP50—ED median time from ED arrival to ED departure for all adult patients	IA_PSPA_7: Use of QCDR data for ongoing practice assessment and improvements
ACEP52—Appropriate ED utilization of lumbar spine imaging for atraumatic low back pain	IA_PSPA_15: Implementation of Antimicrobial Stewardship Program (ASP)
ECPR46—Avoidance of opiates for low back pain or migraines	IA_PSPA_19: Implementation of formal quality improvement methods, practice changes or other practice improvement processes
	IA_PSPA_20: Leadership engagement in regular guidance and demonstrated commitment for implementing practice improvement changes
Cost	**Promoting interoperability**
• Medicare spending per beneficiary (MSPB)—CMS suggests temporary inclusion of the standard cost measure used to assess the costs associated with care immediately prior to, during, and following the beneficiary's hospital stay. • The Cost category will undergo a maintenance process when additional episode-based cost measures are developed and available for broader use.	• Emergency clinicians are generally exempt from the Promoting Interoperability category as they are deemed "hospital-based" and do not have control over the use of health information technology systems. • Score weighting associated with the Promoting Interoperability category is anticipated to be reweighted across other categories.

Note: Within the MVP framework, clinicians will need to report quality measures in 4 performance categories: Quality, Improvement Activities, Cost, and Promoting Interoperability. Included measures within the Quality and Improvement Activities are shown above, with clinicians anticipated to be required to submit only a subset of these measures, with the exact amount yet to be determined by the CMS.
Abbreviations: ACEP, American College of Emergency Physicians; BE, beneficiary engagement; CAHPS, Consumer Assessment of Healthcare Providers and Systems; CC, care coordination; ECPR, Emergency Clinical Performance Registry; IA, improvement activity; MVP, MIPS Value Pathways; PSPA, Patient Safety and Practice Assessment; QPP, Quality Payment Program; QCDR; Qualified Clinical Data Registry.

of available quality measures in the emergency care setting, and a roadmap for the development of an emergency medicine-specific MVP using a consensus-building and Task Force approach.

Our work has broad implications for clinicians, administrators, and policymakers navigating the continued transition to value-based care with the implementation of the MVP framework. Prior analyses of existing emergency care quality measures have assessed clinician performance or patient outcomes and used pediatric emergency department (ED) settings,[11] hospital-level time-to-percutaneous coronary intervention,[12] and ED-level sepsis bundle compliance,[13] with our work uniquely demonstrating the feasibility of collecting diverse stakeholder quantitative perspectives on existing quality measures. The subsequent expert review and consensus-building process can serve as a blueprint for other specialties and clinicians developing MVPs and future value-based care efforts within the emergency setting. Specifically, the MVP Task Force identified a complementary set of quality measures meaningful to emergency clinicians that accounts for the patient-voice, allows for subsequent comparative data analyses, and aims to reduce clinician burden. An additional benefit of the "Undifferentiated High-Risk Complaints" MVP is its alignment with ACEP's Acute Unscheduled Care Model (AUCM), an emergency medicine-specific advanced APM currently awaiting implementation by CMS after endorsement by the Secretary of the Department of Health and Human Services. For the initial 2 years of the AUCM, eligible ED episodes of abdominal pain, altered mental status, chest pain, and syncope in fee-for-service Medicare beneficiaries will be

assessed given their previously demonstrated significant variation in admission decision rates for these conditions.[14,15] A significant alignment of the "Undifferentiated High-Risk Complaints" MVP with the conditions addressed in the AUCM was intentionally proposed to reduce barriers to APM participation in accordance with MVP Guiding Principles.

The development and implementation of an emergency medicine-specific MVP is expected be an iterative process with CMS.[16] Recently, CMS released the 2022 Physician Fee Schedule Final Rule,[17] with this emergency medicine-specific MVP included as 1 of 7 MVPs proposed for implementation starting in calendar year 2023.[17,18] The developed MVP has been renamed by CMS to "Adopting Best Practices and Promoting Patient Safety within Emergency Medicine," with its component measures presented within Table 5. The bulk of the work performed by the MVP Task Force focused on the critical Quality category, but component measures are also shown for the Improvement Activities, Cost, and Promoting Interoperability categories. From a content-perspective, CMS changed little in the Final Rule from the emergency medicine-specific MVP submitted by the Task Force, only: (1) adding QPP #415 "Emergency department utilization of CT for minor blunt head trauma for patients aged 18 years and older," (2) adding 2 Improvement Activity measures for inclusion, and (3) suggesting the temporary use of Medicare Spending Per Beneficiary cost measure until future episode-based cost measures are developed.[17]

MVPs appear to be here to stay, with an intended full transition away from MIPS to MVPs after 2028.[19] If finalized, the measures included in the proposed MVP could change over time. The presence of topped-out measures and their potential future removal from QPPs as well as the development of new specialty-specific quality measures will necessitate continued review and maintenance of the MVP to ensure emergency clinicians are reporting on quality measures that reflect their daily practice and positively impact the quality of emergency care. Most pressing in the linkage of quality and cost in value-based care is the development of emergency medicine-specific cost measures that accurately reflect the role of the emergency clinician and aim to drive down healthcare costs.

7 | CONCLUSIONS

National pay for performance programs for emergency clinicians is shifting toward a greater emphasis on the linkage between quality and cost through the coming implementation of MVPs. The MVP Task Force acquired feedback from diverse emergency medicine stakeholders on existing emergency care quality measures and considered several key issues in the development of an emergency medicine-specific MVP framework. As part of the "Adopting Best Practices and Promoting Patient Safety within Emergency Medicine" MVP, future quality measure reporting will have the potential to meaningfully include emergency clinicians in the shift toward value-based care models that improve quality and/or reduce cost to the healthcare enterprise.

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AUTHOR CONTRIBUTIONS

All those who have contributed significantly to the work have been listed as authors. CJG and AKV conceived the study. CJG performed the analysis and prepared the manuscript. All authors contributed significantly to data analysis and interpretation and revision of the manuscript. CJG takes responsibility for the manuscript as a whole.

CONFLICTS OF INTEREST

MAG, ATT, and AKV serve on the Clinical Emergency Data Registry (CEDR) Committee within the American College of Emergency Physicians (ACEP). MAG is also the President of LogixHealth. AKV receives support for contracted work from the Centers for Medicare and Medicaid Services to develop hospital and healthcare outcome and efficiency quality measures and rating systems.

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