

# Introduction, Cancellation, and Future Promise of Medicare Cardiac Episode Payment Models

### POLICY STATEMENT TITLE

- Advancing Care Coordination through Episode Payment Models.

### ORGANIZATION

- Centers for Medicare and Medicaid Services.

### RELEASE DATE

- Final Rule: January 3, 2017; Delay Date: March 21, 2017; Cancellation Date: August 17, 2017.

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## POLICY CONTEXT

Payment reform is a tool to improve the quality and consistency of patient care while also reducing unnecessary costs. Cardiovascular disease draws attention for new payment models primarily because it accounts for >\$200 billion in annual spending.<sup>1</sup> One such model, Advancing Care Coordination through Episode Payment Models (EPM), was an initiative of the Centers for Medicare and Medicaid Services (CMS). These episode payments, also known as bundled payments, were designed to increase coordination, reduce unwarranted variation, and incentivize value-oriented care for patients with coronary artery disease. Providers would have been incentivized with an episode payment linked to specific quality benchmarks. However, after the change in administration in 2017, mandatory EPMs were first delayed and then cancelled. Here, we will focus on the design of the proposal, as well as factors that ultimately prevented implementation. Finally, we will review the future potential for the re-emergence of EPMs.

## STRUCTURE OF THE PROGRAM

Originally, the EPM structure was to be implemented July 1, 2017, in phases from 2017 to 2021.<sup>2</sup> After the change in administration after the November 2016 election, CMS extended the initiation date of the EPM to January 1, 2018, to allow time to review the policy for modifications.<sup>3</sup> In August 2017, CMS proposed a rule to cancel the EPM.<sup>4</sup>

Enrollees in the initiative would have been hospitals in 98 metropolitan statistical areas, selected randomly from 293 eligible metropolitan statistical areas. Acute care hospitals within these metropolitan statistical areas would continue to receive fee-for-service payments for services beginning with an initial hospitalization for an acute myocardial infarction or coronary artery bypass surgery and extending 90

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days after discharge. At year end, fee-for-service claims would have been analyzed to calculate an actual episode payment and then compared with an established EPM quality-adjusted target payment. Eligible services included most Medicare Part A and Part B services, with exclusions including certain types of care, such as those related to trauma or oncology. Certain patients were to be excluded, such as those with end-stage renal disease, those in a managed care plan, and those enrolled in an alternative payment model, such as accountable care organizations or Bundled Payments for Care Improvement. The anchor admission would have been triggered by primary or secondary diagnosis-related group associated with AMI, as well as those associated with CABG. The comparison of the actual episode payment to the target price would have served as the basis of both Medicare repayments (meaning a patient's care has exceeded the target spending and thus owes CMS a portion of the deficit) and reconciliation payments (meaning the hospital has spent less than their target and thus is due bonus compensation).

The target payment for a given hospital was to depend on 2 factors: the baseline reimbursement price and the discount factor. Baseline prices would have been established by blending hospital and regional spending over 3 prior years. Early in the program, more emphasis would have been placed on historical spending; later in the program, regional spending would have dictated baseline prices. Hospitals would have had to meet this target to be eligible for bonus payments and avoid penalties.<sup>2</sup>

The amount of the discount applied to the baseline reimbursement price was to be determined by both hospital quality performance and program year. Hospital quality would have been measured by a composite score across quality measures, including mortality rates and number of acute care days. Improved performance would have decreased the magnitude of the discount percentage, thereby reducing the target price. The discount percentage of bonuses would have been fixed during the 5 years of the program, and the discount percentage for penalties would have increased.<sup>2</sup>

In addition to the EPMs, the CMS rule proposed an incentive payment model for use of cardiac rehabilitation in 45 metropolitan statistical areas from the EPM cohort. CR enrollment would have been determined by progression-free survival and Outpatient Prospective Payment System claims data. Repayment for CR services was to include the usual fee-for-service payments and incentive payments to encourage adherence, initially \$25 increasing to \$175 when a patient meets or exceeds 11 CR services. This payment structure reflected challenges with both initial appointments to CR and long-term adherence.

Critically, given the random assignment of these payment changes, the structure of these EPMs would have allowed rigorous assessment of the impact of these changes on quality and value. More commonly,

evidence of the effects of policy changes on patients is influenced by unmeasured confounding and as such are prone to selection bias that limits confidence in our understanding of the effects of these policies.

## REASONS FOR THE PROGRAM'S DEMISE

Although there are several factors that contributed to the cancellation of the mandatory EPM, the primary reason is likely the change in administration in January 2017.<sup>4</sup> The director of the US Department of Health and Human Services at the time the EPMs were initially proposed for cancellation, Dr Tom Price, had previously criticized mandatory EPMs. In 2016, while a US congressman, he wrote a letter to CMS that stated that these models constituted "experimenting with Americans' health" and that such models, while perhaps may be effective at cutting costs, did not engage stakeholders to ensure the "[preservation] and [enhancement of] the quality of care." Instead, he called for a smaller scale test implementation, in which "no state, health-care provider, or health insurer [has] any obligation to participate," with a "[limitation] of the size and scope of CMMI demonstrations so they represent true tests rather than wholesale changes to the statute."<sup>5</sup> The reversal of the EPM rule for cardiac bundles seems to be representative of the shift away from mandatory bundled payment model participation and perhaps instead toward voluntary participation.

## FUTURE OF BUNDLED PAYMENT INITIATIVES

Despite the hold on mandatory participation in cardiac EPMs within Medicare, they are likely to re-emerge. Evidence suggests that episode payment models decrease costs, most notably with the Medicare Participating Heart Bypass Center Demonstration, operating from 1991 to 1996, and the Geisinger Health System's implementation of ProvenCareSM in 2006. In the former, hospitals were paid a single fee for all inpatient physician services for CABG. Overall inpatient Medicare costs decreased by 15.5%, and individual hospital costs decreased by a range of 2% to 23%. Similarly, ProvenCareSM resulted in an overall decrease in hospital costs by 5%. Interestingly, neither model demonstrated a substantial improvement in overall health outcomes.<sup>6</sup> Similar findings were recently reported in the year 3 analysis of Bundled Payments for Care Improvement, a voluntary program designed to increase value by incentivizing care coordination via repayment models.<sup>7</sup> Although these early models lack the longevity of the EPM model or the complexities associated with implementation across different health systems, they are

nonetheless signs that EPMS can generate significant cost savings.

The Comprehensive Care for Joint Replacement Model, implemented in 2011, perhaps serves as a better model for the effect of bundled payments on care integration and value-based delivery. Preliminary results suggest decreased length of stay, decreased readmissions, and decreased discharges to inpatient facilities, thus decreasing overall costs and improving outcomes during the first several years of implementation.<sup>8</sup> The success of this program suggests that bundled payment models may be able to decrease costs while increasing quality.

Voluntary models could represent the next step for federal EPMS and indeed were widely encouraged by professional organizations and hospital systems commenting on the mandatory EPM cancellation to ensure that the most vulnerable patients remain protected, as well as allowing those hospitals who had prepared for the move to reap the benefits. The main drawback of a voluntary system is the lack of randomization would limit the ability to monitor efficacy. Results from non-randomized analyses could be prone to missing variable bias (unmeasured confounding), as well as bias related to historical trends, complicating our understanding of the causal effect of the payment mechanism.

Private insurers may begin to begin new commercial EPMS, which would provide some opportunity for data generation nationally across different payer networks. However, these data will undoubtedly be influenced by specific regional pressures even if implemented in a diverse network of hospitals, especially since those most likely to voluntarily shift to EPMS will be those most equipped to find success with such a program, as seen in the Bundled Payments for Care Improvement voluntary model group.<sup>7</sup> The shift toward voluntary participation will thus result in the loss of the ability to rigorously evaluate the effects of EPMS on value and may bias any analysis positively toward EPM cost savings although notably this has not been the case for Bundled Payments for Care Improvement models.<sup>7</sup>

Finally, the cancellation of the cardiac EPM results in the loss of incentives for CR use. Despite a mortality benefit of CR after AMI, only 20% to 30% of eligible patients with AMI are referred for CR.<sup>9</sup> CR use directly correlates with increased provider referrals,<sup>10</sup> which can be increased with provider-led interventions,<sup>11</sup> and degree of benefit is proportional to the number of CR sessions attended.<sup>12</sup> A CR incentive program would be expected to both motivate increased initial referrals and to increase hospital and provider attention toward emphasis on continued participation in CR. As such, the CR incentive payment may have been a tool to improve clinical outcomes. In that context, improving CR reimbursement is likely to be a focus of both government and private payers moving forward.

## LESSONS FOR FUTURE CARDIAC EPMS

Although EPMS show promise for improving quality of care and decreasing costs for patients with heart disease, there are several potential pitfalls and tradeoffs to consider in future models. First, procedural bundles (such as percutaneous coronary intervention or CABG) are clearly defined to front-line clinicians, facilitating quality improvement, since the patients are easily defined. In acute condition bundles (such as congestive heart failure or AMI), however, there are fewer potential adverse incentives, such as avoiding PCI for AMI to avoid triggering a bundled payment. However, for acute conditions, eligible patients may be less clear and effective tactics for quality improvement may be more heterogenous.

Although some conditions, such as procedurally based admissions for PCI, lend themselves well to categorization in DRG coding, others are less straightforward. For example, the definition of an AMI by administrative coding is complex, and the model does not distinguish between ST-segment-elevation myocardial infarction (MI) and non-ST-segment-elevation MI when determining baseline reimbursement pricing. This may have measurable effects on hospitals with different case mixes, such as referral centers for ST-segment-elevation MI. The resulting adverse incentives may lead to risk-averse behavior by hospitals, with selection bias influencing treatment decisions within participating hospitals.<sup>1</sup> Predictive cost analysis models have demonstrated that hospitals that care for sicker patients with fewer financial means may perform worse in this payment model.<sup>13</sup> This could translate into further disenfranchising vulnerable populations. Such effects will require monitoring.

Furthermore, non-ST-segment-elevation MI can be further divided into type 1 versus type 2 MIs, but this type of granularity is not possible to assess with administrative data. In our institution, more than half of the financial penalties under the Hospital Readmissions Reduction Program occurred in patients with type 2 MI, or in whom procedures were not offered because of high procedural risk, or patient preference to avoid revascularization.<sup>14</sup> Patients with AMI not treated with revascularization have higher use of postacute services and more costs of care related to readmissions,<sup>13</sup> and treatment and outcomes of type 2 MIs remain variable.<sup>15</sup> New administrative billing codes, such as codes for type 2 MI and excessive procedural risk, may address these potential problems and may allow EPMS to establish more meaningful baseline prices.

## CONCLUSIONS

Despite the reversal from CMS, we think that cardiac EPMS are likely both to improve the quality of care and improve value. Given the gaps in quality for patients

related to uneven use, the tremendous costs incurred by these patients, and unrelenting pressure on both government and private payers, we think that some forms of EPMs for cardiac care are likely to re-emerge soon. When they do, especially if they are not implemented with randomization, methodologically rigorous analysis will need to confirm that they improve clinical outcomes and reduce unwarranted costs without unintended consequences.

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## DISCLOSURES

Dr Wasfy served (unpaid) on the Health Care Payment Learning and Action Network committee on cardiac episode payment, which provided recommendations to Centers for Medicare and Medicaid Services about episode payments for cardiac conditions. Dr Wasfy also reports a career development award from Harvard Catalyst and the National Institutes of Health (KL2 TR001100). The other author reports no conflicts.

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## FOOTNOTES

*Circ Cardiovasc Qual Outcomes* is available at <http://circoutcomes.ahajournals.org>.

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