Acute Myocardial Infarction Model
Provider and Technical Fact Sheet

On December 20, 2016, the Centers for Medicare & Medicaid Services (CMS) announced regulations regarding the Acute Myocardial Infarction (AMI) Model in the Advancing Care Coordination through Episode Payment Models final rule. The final rule finalizes three Episode Payment Models (EPMs) and a Cardiac Rehabilitation Incentive Payment Model and includes some modifications to the Comprehensive Care for Joint Replacement (CJR) Model. The rule also creates an advanced APM track option for each of the 3 EPMs and the CJR Model.

This final rule implements a new payment model for Part A and B items and services provided to Medicare fee-for-service beneficiaries undergoing hospitalization for AMI. The Model is being implemented under the authority of Section 1115A of the Social Security Act. Acute care hospitals in certain selected geographic areas will participate in retrospective episode payments for items and services that are related to AMI treatment and recovery, beginning with a hospitalization for AMI treatment and extending for 90 days following hospital discharge. The Model furthers CMS’ goal of improving the efficiency and quality of care for Medicare beneficiaries with AMI, a common and serious condition, and encourages hospitals, physicians, and post-acute care providers to work together to improve the coordination of care from the initial hospitalization through recovery.

The first performance period will begin on July 1, 2017. The AMI Model will continue for 5 performance years, ending on or about December 31, 2021.

Overall Model Design

Under the AMI Model, the hospital is financially accountable for the quality and cost of an AMI episode of care, which incentivizes increased coordination of care among hospitals, physicians, and post-acute care providers. An AMI episode is defined by the admission of an eligible Medicare fee-for-service beneficiary to a hospital paid under the Inpatient Prospective Payment System (IPPS) that eventually results in a discharge paid under MS-DRG 280 (Acute myocardial infarction, discharged alive with MCC), MS-DRG 281 (Acute myocardial infarction, discharged alive with CC), MS-DRG 282 (Acute myocardial infarction, discharged alive without CC/MCC). In addition to AMI MS-DRGs, an MS-DRG for percutaneous catheter insertion (PCI) which includes an AMI ICD-10-CM diagnosis code in any diagnosis (i.e. 1-25) position on the IPPS claim will initiate an AMI Model episode. The following PCI MS-DRGs are eligible to initiate an AMI episode, as long as the criterion for AMI diagnosis code as specified previously is met: MS-DRG 246 (Percutaneous cardiovascular procedures with drug-eluting stent with MCC or 4+ PCI MS-DRG).
vessels/stents), MS-DRG 247 (Percutaneous cardiovascular procedures with drug-eluting stent without MCC), MS-DRG 248 (Percutaneous cardiovascular procedures with non-drug-eluting stent with MCC or 4+ vessels/stents), MS-DRG 249 (Percutaneous cardiovascular procedures with non-drug-eluting stent without MCC), MS-DRG 250 Percutaneous cardiovascular procedures without coronary artery stent with MCC), and MS-DRG 251 (Percutaneous cardiovascular procedures without coronary artery stent without MCC).

The episode of care continues for 90 days following discharge and almost all Part A and Part B services provided in those 90 days are included in the episode price. For each performance year of this model, CMS will set Medicare episode quality-adjusted target prices for each participant hospital that include payment for all related services furnished to eligible Medicare fee-for-service beneficiaries who are treated and discharged from AMI Model MS-DRGs at that hospital. Quality-adjusted target prices will initially be set based on a blend of provider-specific and census-region historical claims data for beneficiaries hospitalized for AMI, and gradually transition to being set based on census-region pricing only. All providers and suppliers will continue to be paid under the usual payment system rules and procedures of the Medicare program for episode services throughout the year. Following the end of a model performance year, actual spending for the episode (total expenditures for related services under Medicare Parts A and B) will be aggregated and compared to the Medicare quality-adjusted target price for the participant hospital where the beneficiary was discharged with the AMI. Depending on the participant hospital’s quality and episode spending performance, the hospital may receive an additional payment from Medicare or be required to repay Medicare for a portion of the episode spending.

Major Policy Changes from the Proposed Rule to the Final Rule

There are several major policy changes from the proposed rule to the final rule. The major rule changes are bulleted below.

- **Implementation of downside risk:** In our final rule, we finalized a policy that allows AMI model participants to voluntarily accept downside risk beginning in performance year 2 on January 1, 2018. For participants who do not elect early downside risk, downside risk will begin with episodes ending in performance year 3, which begins on January 1, 2019.

- **Updated transfer policy:** In the proposed rule, we had proposed that AMI Model beneficiaries transferred between hospitals would initiate an AMI Model episode at the original treating hospital and the original treating hospital would remain responsible for those beneficiaries’ AMI Model episodes. In response to public comments, we have modified this policy in our final rule such that the transfer of an AMI Model beneficiary from one hospital to another will cancel the episode at the original treating hospital. If the hospital accepting the transferred beneficiary is an AMI or CABG model participant, an AMI or CABG episode will be initiated at that accepting hospital if the discharge MS-DRG falls under an applicable AMI or PCI or CABG MS-DRG.
• **Stop-loss/Stop-gain limits:** In the proposed rule, we had proposed a stop-loss limit of 5% in performance year 2 during the single quarter of downside risk, 10% in performance year 3, and 20% in performance years 4 and 5 for participating hospitals other than rural hospitals, sole community hospitals, Medicare-dependent hospitals and rural referral centers, which had lower stop-loss limits. As specified above, we have changed our policy to allow AMI Model participants to elect optional downside risk in the beginning of performance year 2. Participants not electing early downside risk will have required downside risk beginning in performance year 3. We have altered our stop-loss and stop-gain limits to reflect this policy. Specifically, the stop-loss limits are 5% in performance year 2 (for voluntary downside risk), 5% in performance year 3, 10% in performance year 4, and 20% in performance year 5, with lower limits for certain hospitals. We also have finalized stop-gain limits which mirror the stop-loss limits. Specifically, the stop-gain limit for all participants in performance years 1, 2, 3, 4, and 5 will be 5%, 5%, 5%, 10% and 20%, respectively.

• **Adjustments for hospitals with a low volume of episodes:** In response to comments, we are implementing a policy for hospitals determined to have a low volume of historical episodes under a model—“volume protection hospitals.” Specifically, hospitals with a historical volume of EPM episodes at or below the 10th percentile of the number of hospital-specific historical EPM episodes for hospitals located in the MSAs eligible for selection into that specific EPM will have the same protections as rural hospitals, SCHs, Medicare Dependent Hospitals, and rural referral centers (RRCs). These stop-loss limits will be 3% in performance years 2 (if they voluntarily accept early downside risk) and 3, and 5% in performance years 4 and 5.

**General Model Overview**

**Participants**

The AMI Model will be implemented in 98 geographic areas, defined by MSAs. MSAs are counties associated with a core urban area that has a population of at least 50,000. Non-MSA counties (no urban core area or urban core area of less than 50,000 population) were not eligible for selection. Eligible MSAs must have had at least 75 AMI Model eligible cases which were not attributed to the Bundled Payments for Care Improvement (BPCI) initiative between January 2014 and December 2014, and the percentage of BPCI eligible AMI episodes must have been less than 50 percent because BPCI episodes are excluded from the Model. The 98 MSAs were selected via random sampling from 293 eligible MSAs. The 98 MSAs selected can be found on our website: [https://innovation.cms.gov/initiatives/epm](https://innovation.cms.gov/initiatives/epm).

Participant hospitals in these selected geographic areas are all acute care hospitals paid under the inpatient prospective payment system (IPPS) that are not concurrently participating in Models 1, 2 or 4 of the BPCI initiative for AMI episodes.
Approximately 1,120 hospitals are required to participate in the AMI Model. The number of hospitals that actually participate in the AMI Model will be dependent on performance within the Model, subject to BPCI participation and whether a given hospital discharges Medicare beneficiaries under AMI Model-eligible MS-DRGs during AMI Model performance years. The list of hospitals required to participate in the AMI Model can be found on our website at https://innovation.cms.gov/initiatives/epm. Full implementation of the model in selected geographic areas, rather than only in organizations volunteering to participate in the Model, will yield more valid and reliable study results.

**Episode definition**

The episode of care begins with an admission to a participant hospital of a beneficiary who is ultimately discharged under an AMI MS-DRG 280-282, or who is discharged under PCI MS-DRGs 246-251 with AMI ICD-10-CM diagnosis code in any diagnosis (i.e. 1-25) position on the IPPS claim and ends 90 days post-discharge in order to cover an extended period of recovery for beneficiaries. The episode includes all related items and services paid under Medicare Part A and Part B for all Medicare fee-for-service beneficiaries, with the exception of certain exclusions. The following categories of items and services are included in the episodes: physicians' services; inpatient hospital services (including hospital readmissions); inpatient psychiatric facility (IPF) services; long-term care hospital (LTCH) services; inpatient rehabilitation facility (IRF) services; skilled nursing facility (SNF) services; home health agency (HHA) services; hospital outpatient services; outpatient therapy services; clinical laboratory services; durable medical equipment (DME); Part B drugs; hospice; and some per beneficiary per month (PBPM) care management payments under models tested under Section 1115A of the Social Security Act. Unrelated services are excluded from the episode. Unrelated services are for acute clinical conditions not arising from existing episode-related chronic clinical conditions or complications of the AMI treatment; and chronic conditions that are generally not affected by treatment during hospitalization for the AMI or care during the 90-day post-discharge period. The complete list of exclusions can be found on our website at: https://innovation.cms.gov/initiatives/epm, accompanied by the list of excluded MS-DRGs for readmissions during the episode and ICD-10-CM diagnosis codes for Part B services.

**Pricing and payment**

The AMI Model is a retrospective episode payment model. CMS will provide participant hospitals with Medicare episode prices, called quality-adjusted target prices, prior to the start of each performance year. Quality-adjusted target prices for episodes anchored by each of the eligible AMI MS-DRGs (MS-DRGs 280-282) and for episodes anchored by eligible PCI MS-DRGs (MS-DRGs 246-251 with AMI diagnosis in any diagnosis (i.e. 1-25) position on the IPPS claim) will be provided to participant hospitals. The quality-adjusted target price includes a discount over expected episode spending and this discount varies based on the composite quality score earned by hospitals across the AMI quality measures. This quality-adjusted target price
will incorporate a blend of historical hospital-specific spending and regional spending for AMI Model episodes, with the regional component of the blend increasing over time. All providers and suppliers furnishing AMI Model episodes of care to beneficiaries throughout the year will be paid under existing Medicare payment systems.

Following completion of an AMI Model performance year, participant hospitals that achieve AMI Model actual episode spending below the quality-adjusted target price and achieve an acceptable or better composite quality score will be eligible to earn a reconciliation payment from Medicare for the difference between the quality-adjusted target price and the actual episode spending, up to a specified cap. We are finalizing a policy for no repayment responsibility in performance years 1 and 2 of the Model for providers not opting for an early start for downside risk in January of 2018. Providers who do opt for voluntary downside risk in performance year 2 will be at risk for repayment in performance year 2. We are also finalizing a policy to apply a reduced discount percentage for repayment responsibility in performance years 3 and 4 in order to phase in financial responsibility for spending during AMI Model episodes throughout the Model performance years. We are also finalizing parallel stop-loss and stop-gain limits, which both protect hospitals from excess financial risk while limiting gains proportional to the potential downside risk.

All hospital participants that achieve AMI Model actual spending below the quality-adjusted target price and achieve an acceptable or better composite quality score will be eligible to earn up to 5 percent of their quality-adjusted target price in performance years 1, 2 and 3, 10 percent in performance year 4, and 20 percent in performance year 5. Hospitals with AMI Model episode spending that exceeds the target price will be financially responsible for the difference to Medicare up to a specified repayment limit. We have finalized stop-loss limits of 5 percent in performance year 2 (for participants that elect voluntary early downside risk), 5 percent in performance year 3, 10 percent in performance year 4 and 20 percent in performance year 5 for participant hospitals other than rural hospitals, Medicare-dependent hospitals, rural referral centers, sole community hospitals and certain volume-protection hospitals. We are finalizing the stop-loss limit for these hospitals at 3 percent in performance years 2 and 3, and 5 percent in performance years 4 and 5. We believe that our stop-loss and stop-gain limits provide proportionately similar protections to CMS and hospital participants, as well as ensure beneficiaries have access to high quality care under the models. We believe it is appropriate that as participant hospitals increase their financial responsibility, they can similarly increase their opportunity for additional payments under this model. We also believe that these changes will both facilitate participants’ ability to be successful under this model and allow for a more gradual transition to financial responsibility under the Model.

Additional flexibilities for participant hospitals and collaborating providers and suppliers...
The Model waives certain existing payment system requirements to assist participant hospitals in caring for beneficiaries in the most efficient, convenient setting, to encourage timely, accessible care, and to facilitate improved communication and treatment adherence. These include: a waiver of the requirement for a three-day inpatient hospital stay prior to admission for a covered SNF stay under certain conditions beginning in performance year 3 (i.e. January 1, 2019); a waiver of the physician definition for a provider or supplier of CR and ICR services furnished to certain beneficiaries at specific times to allow a physician or a qualified non-physician practitioner to directly supervise cardiac rehabilitation, prescribe exercise, and establish, review, and sign an individualized treatment plan every 30 days; allowing payment for certain physician visits to a beneficiary in his or her home via telehealth; and allowing payment for certain types of physician-directed home visits for non-homebound beneficiaries. In addition, a participant hospital may wish to enter into certain financial arrangements with collaborating providers and suppliers who are engaged in care redesign with the hospital. Under these arrangements, a participant hospital may share payments received from Medicare as a result of reduced episode spending and hospital internal cost savings with collaborating providers and suppliers, subject to parameters outlined in the rule. Participant hospitals may also share financial accountability for increased episode spending with collaborating providers and suppliers. Finally, participant hospitals may provide beneficiaries with certain in-kind patient engagement incentives to advance the clinical goals of their care, under certain conditions.

Quality and the pay-for-performance methodology

The AMI Model has the potential to improve quality in four ways. First, the Model adopts a quality-first principle where hospitals must achieve a minimum level of episode quality before receiving reconciliation payments when episode spending is below the target price. Second, higher episode quality, considering both performance and improvement, may lead a hospital to have the opportunity for greater financial rewards given the level of actual spending based on the hospital’s composite quality score, a summary score reflecting hospital performance and improvement on the following three measures:

- Hospital 30-day, All-cause, Risk-Standardized Mortality Rate (RSMR) Following Acute Myocardial Infarction (NQF #0230); and
- Excess Days in Acute Care after Hospitalization for AMI; and
- Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey (NQF #0166)

The composite quality score also takes into consideration a hospital’s submission of Voluntary Hybrid Hospital 30-day, All-Cause, Risk-Standardized Mortality Rate Following Acute Myocardial Infarction Hospitalization (NQF #2473) data submission.
Third, in addition to quality performance requirements, the Model incentivizes hospitals to avoid expensive and harmful events, which increase episode spending and reduce the opportunity for reconciliation payments.

Fourth, CMS provides additional tools to improve the effectiveness of care coordination by participant hospitals in selected MSAs. These tools include: 1) providing hospitals with relevant spending and utilization data; 2) waiving certain Medicare requirements to encourage flexibility in the delivery of care; and 3) facilitating the sharing of best practices between participant hospitals through a learning and diffusion program.

More information on quality in the pay-for-performance methodology can be found on our website at https://innovation.cms.gov/initiatives/epm.

**Beneficiary benefits and protections**

Beneficiaries retain their freedom of choice to choose services and providers. Physicians and hospitals are expected to continue to meet current standards required by the Medicare program. All existing safeguards to protect beneficiaries and patients remain in place. If a beneficiary believes that his or her care is adversely affected, he or she should call 1-800- MEDICARE or contact his or her state’s Quality Improvement Organization by going to http://www.qioprogram.org/contact-zones. The establishment of an Alternative Payment Models Beneficiary Ombudsman will ensure monitoring of the models and fielding inquiries from beneficiaries if needed. The final rule also describes additional monitoring of claims data from participant hospitals to ensure that hospitals continue to provide all necessary services.

**Interaction with other models and programs**

Hospitals participating in other CMS models or programs such as the Shared Savings Program and other Accountable Care Organization (ACO) initiatives are included in the AMI Model if they are located in a selected MSA. Beneficiaries included in an AMI Model episode under the AMI Model may also be assigned to an ACO, in which case CMS will attribute savings achieved during an AMI Model episode to the AMI Model participant, and include AMI Model reconciliation payments for ACO-aligned beneficiaries as ACO expenditures. Episodes initiated by beneficiaries who are prospectively aligned to certain two-sided risk shared savings programs such as the Next Generation ACO will be excluded from the AMI Model.

**Innovation Center**

The AMI Model has been designed by the Center for Medicare and Medicaid Innovation (Innovation Center), which was established by Section 1115A of the Social Security Act (as added by section 3021 of the Affordable Care Act). Congress created the Innovation Center to test innovative payment and service delivery models to reduce CMS program expenditures and preserve or enhance the quality of care for Medicare, Medicaid, and Children’s Health Insurance
Program beneficiaries. The Innovation Center’s mission is to take locally-driven approaches – approaches from doctors and other health care partners providing care to patients every day – and give them platform to scale through a very collaborative and highly transparent process.

The Advancing Care Coordination through Episode Payment Models final rule can be viewed at https://www.federalregister.gov/public-inspection/current starting December 20, 2016.

For more information about the AMI Model, go to https://innovation.cms.gov/initiatives/ami-model

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