Executive Summary

Non-acute Percutaneous Coronary Intervention (PCI) Episode

Corresponds to DBR and Configuration file V4.0

Updated: December 30, 2019
OVERVIEW OF A NON-ACUTE PCI EPISODE

The non-acute Percutaneous Coronary Intervention (PCI) episode revolves around patients who have a PCI in a non-acute setting, i.e., do not have acute coronary syndrome or present in the emergency department. The trigger event is the PCI procedure. All related care – such as anesthesia, imaging and testing, evaluation and management, and medications – is included in the episode. The quarterback, also called the principal accountable provider or PAP, is the physician group or the cardiologist who performs the procedure. The non-acute PCI episode begins on the lesser of 90 days prior to the PCI (or admission if inpatient) or the first visit to the quarterback within those 90 days, and it ends 30 days after the procedure (or discharge if inpatient).

CAPTURING SOURCES OF VALUE

Providers have multiple opportunities during a non-acute PCI to improve the quality and cost of care. Sources of value prior to the procedure include employing appropriate diagnostic tests to inform the selection of interventional procedures and assessing the appropriateness of the procedure. Selecting the appropriate site of care and making an efficient use of patient stay are also ways in which providers are able to improve quality and cost of care. During the procedure, providers may reduce the potential for complications due to technical performance (e.g., site of access, type of procedure). After the PCI has been done, providers can employ an evidence-based choice of therapies and medications, and reduce the number of readmissions after the procedure due to complications.

To learn more about the episode’s design, please reference the following documents on our website at www.tn.gov/hcfa/topic/episodes-of-care:

- **Detailed Business Requirements: Complete technical description of the episode**
  http://www.tn.gov/assets/entities/hcfa/attachments/Non-acutePCI.pdf

- **Configuration File: Complete list of codes used to implement the episode**
  http://www.tn.gov/assets/entities/hcfa/attachments/Non-acutePCI.xlsx

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Illustrative Patient Journey

1. Patient has clinical indications that require a non-acute PCI

2. Initial assessment
   - Initial assessment is done by either a primary care physician or other physician depending on where the patient presents
   - Diagnostic procedures are done (e.g. ECG, imaging, blood tests, angiogram)

3. Procedure
   - Patient is given sedative medication and local anesthesia at the insertion site
   - Catheter is inserted and balloon inflated to improve blood flow
   - Physician may take measurements, pictures, or angiograms to make sure the artery is opened sufficiently
   - Potential complications such as abrupt coronary artery closure may happen

4. Follow-up care
   - Patient is taken to a recovery room and then returned to a hospital room for observation
   - Depending on patient’s condition, he/she is discharged within a few days, or may be transferred to a long-term care facility
   - Patient may receive cardiac rehab and office visits with a primary care physician and/or cardiologist
   - Medications are prescribed (e.g. anticoagulant, low-dose aspirin, beta blockers, statins, ACE inhibitors)

5. Potential complications (e.g. AV fistula, post-operative hemorrhage, myocardial infarction, pulmonary embolism or vein thrombosis, stent complication, stroke)

Potential Sources of Value

1. Patient has clinical indications that require a non-acute PCI

2. Initial assessment
   - Initial assessment is done by either a primary care physician or other physician depending on where the patient presents
   - Employ appropriate diagnostic tests to inform selection of interventional procedures
   - Procedures are done (e.g. ECG, imaging, blood tests, angiogram)

3. Procedure
   - Door-to-balloon time of 90 minutes or less
   - Door-to-door-to-balloon time as short as possible
   - Appropriateness of procedure
   - Choose appropriate anesthesia, follow procedure protocol, make the most efficient use of patient stay, and minimize waiting for procedures and tests
   - Reduce potential for complications due to technical performance e.g. site of access, type of procedure

4. Follow-up care
   - Patient is taken to a recovery room and then returned to a hospital room for observation
   - Depending on patient’s condition, he/she is discharged within a few days, or may be transferred to a long-term care facility
   - Patient may receive cardiac rehab and office visits with a primary care physician and/or cardiologist
   - Medications are prescribed (e.g. anticoagulant, low-dose aspirin, beta blockers, statins, ACE inhibitors)

5. Employ evidence-based choice of therapies and medications
   - Medications are prescribed (e.g. anticoagulant, low-dose aspirin, beta blockers, statins, ACE inhibitors)

6. Reduce admissions through coordinated discharge care and patient education

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ASSIGNING ACCOUNTABILITY

The quarterback of the episode is the specific health care provider deemed to have the greatest accountability for the quality and cost of care for the patient. To state it differently, the quarterback is the provider who has the greatest ability to influence all of the health care delivered in a given episode. For the non-acute PCI episode, the quarterback is the cardiologist who performs the procedure. The tax ID of the billing provider (or group) of the professional trigger claim will be used to identify the quarterback. All quarterbacks will receive reports according to their contracting entity or tax identification number.

MAKING FAIR COMPARISONS

The episode model is designed to be fair to providers and incentivize best practices without penalizing providers who care for sicker patients. As such, important aspects of the model are:

- Inclusion of only the cost of services and medications that are related to the non-acute PCI in calculation of episode spend.
- Exclusion of episodes when clinical circumstances create the likelihood that the case will deviate substantially from the typical care path or when claims data is likely to be incomplete.
- Risk adjusting episode spend to account for the cost of more complicated patients.

In the pre-trigger window, the episode includes only office visits to the quarterback and related imaging and testing services. During the trigger window, all services and related medications are included in the episode. The post-trigger window only includes care for complications, evaluation and management visits to the quarterback, specific testing, and related medications.

Some exclusions apply to any type of episode, i.e., are not specific to a non-acute PCI. For example, an episode would be excluded if more than one payer was involved in a single episode of care, if the patient was not continuously insured by the payer during the duration of the episode, or if the patient had a discharge status of ‘left against medical advice’. Other examples of exclusion criteria specific to the non-acute PCI episode include a patient who has cardiogenic shock or conversion to CABG. These patients have significantly different clinical courses that cannot be risk adjusted. Furthermore, there may be some factors with a low
prevalence or significance that would make accurate risk adjustment difficult and may be used to exclude patients completely instead of adjusting their costs.

For the purposes of determining a quarterback’s cost of each episode of care, the actual reimbursement for the episode will be adjusted to reflect risk factors captured in recent claims data in order to be fair to providers caring for more complicated patients. Over time, a payer may adjust risk factors based on new data. The final risk adjustment methodology decisions will be made at the discretion of the payer after analyzing the data.

**MEASURING QUALITY**

The episode reimbursement model is designed to reward providers who deliver cost effective care AND who meet certain quality thresholds. A quarterback must meet or exceed all established benchmarks for any quality metric tied to gain sharing in order to be eligible to receive monetary rewards from the episode model. Other quality metrics may be tracked and reported for quality improvement purposes but may not be tied directly to gain sharing.

The quality metric linked to gain sharing for the non-acute PCI episode is:

- **Hospitalization in the post-trigger window:** Percent of valid episodes with an included hospitalization in the post-trigger window (excluding hospitalizations for repeat PCI) (lower rate indicative of better performance).

The quality metrics that will be tracked and reported to providers but that are not tied to gain sharing are:

- **Multiple-vessel PCI:** Percent of valid episodes where the trigger PCI involves multiple vessels (including multiple branches) (rate not indicative of performance).

- **Staged PCI:** Percent of valid episodes with a repeat PCI in the post-trigger window (rate not indicative of performance).

- **Difference in average MED/day:** Average difference in morphine equivalent dose (MED)/day during the 1-60 days prior to the trigger window and average MED/day during the 7-30 days after the trigger window, across valid episodes (lower value indicative of better performance)

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It is important to note that quality metrics are calculated by each payer on a per quarterback basis across all of a quarterback's episodes covered by that payer. Failure to meet all quality benchmarks tied to gain sharing will render a quarterback ineligible for gain sharing with that payer for the performance period under review.