TN Division of Health Care Finance & Administration

Health Care Innovation Initiative

Executive Summary

Heart Valve Replacement or Repair (VALVE) Episode

Corresponds with DBR and Configuration file V1.2

Updated: January 11, 2017

OVERVIEW OF A HEART VALVE REPLACEMENT OR REPAIR EPISODE

The heart valve replacement or repair episode revolves around patients who receive a heart valve replacement or repair. The trigger event is an inpatient admission or observation, emergency department, outpatient, or office visit with a heart valve replacement or repair 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 facility where the heart valve replacement or repair was performed. The heart valve replacement or repair episode begins on the day of the triggering procedure and ends 30 days after discharge.

CAPTURING SOURCES OF VALUE

Providers have multiple opportunities during a heart valve replacement or repair to improve the quality and cost of care. Example sources of value include increased operative efficiency and appropriate selection of valve replacement or repair, as well as the type of grafts for patients receiving a concurrent CABG. Additionally, providers can select an appropriate length of stay for the procedure, while also reducing in-hospital complications and infections. Furthermore, providers can choose appropriate post-acute care, efficient follow-up imaging, and appropriate use of medications. Overall, the provider can bring about a reduction in readmissions and 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/ValveReplacementOrRepair.pdf

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

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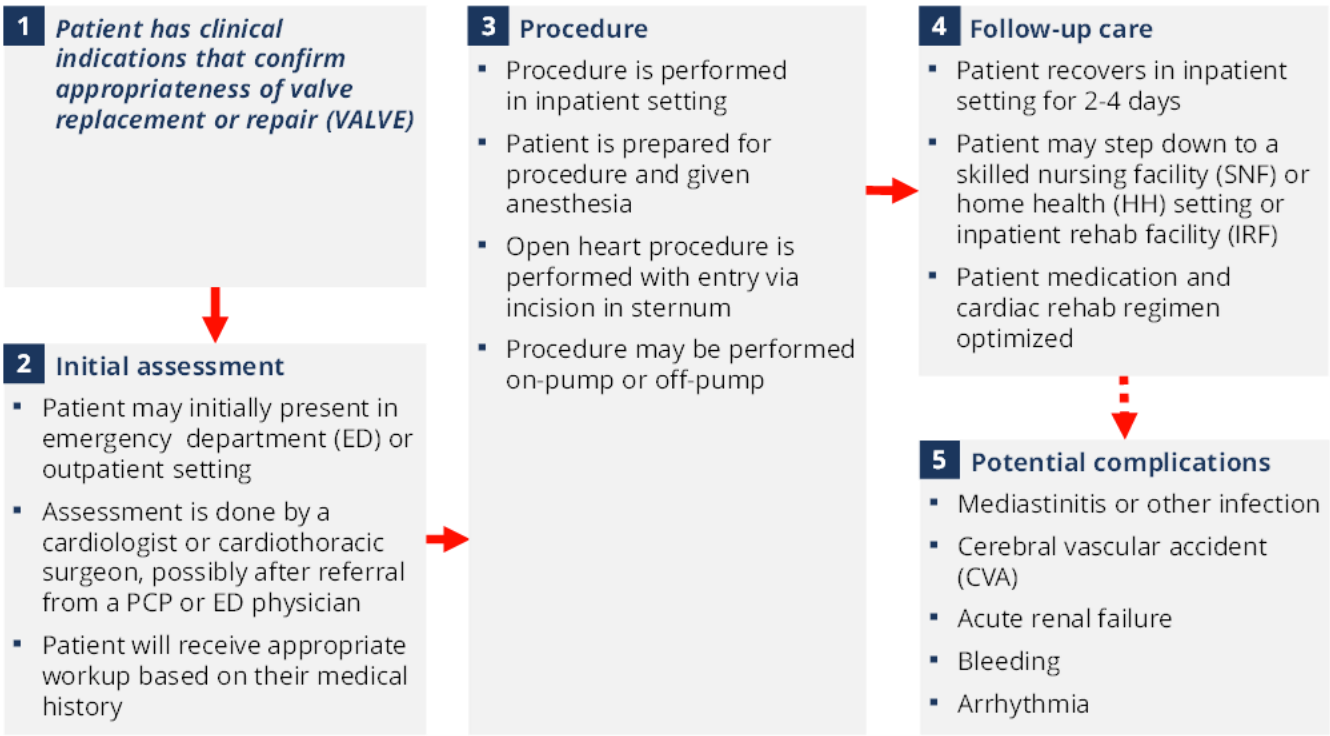
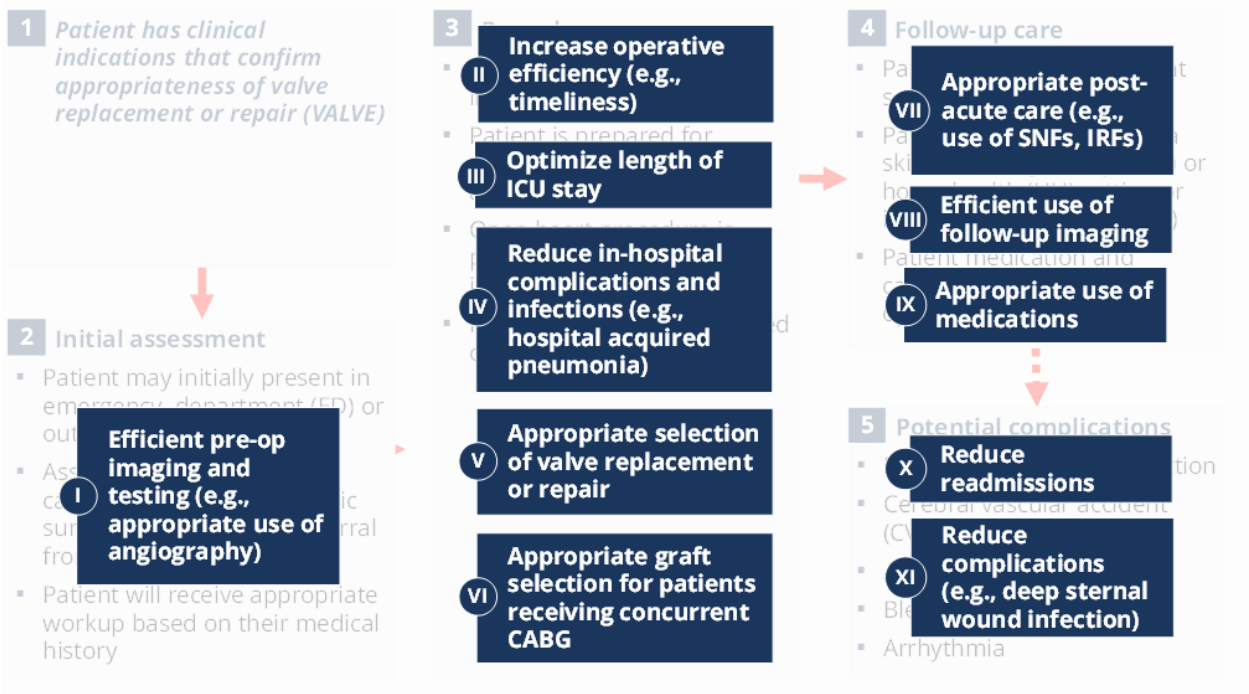
Illustrative Patient Journey



Potential Sources of Value



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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 heart valve replacement or repair episode, the quarterback is the facility where the heart valve replacement or repair was performed. The contracting entity or tax identification number of the facility where the heart valve replacement or repair is performed will be used to identify the Quarterback.

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 heart valve replacement or repair 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.

The heart valve replacement or repair episode has no pre-trigger window. During the trigger window, all services and all medications are included. The post-trigger window includes specific care after discharge, specific anesthesia, specific evaluation and management visits, specific imaging and testing, specific medications, specific pathology, and specific surgical and medical procedures.

Some exclusions apply to any type of episode, i.e., are not specific to a heart valve replacement or repair episode. 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 heart valve replacement or repair episode include

a patient who has an ischemia-related admission or has pre-existing endocarditis on admission. These patients have significantly different clinical courses that the episode does not attempt to risk adjust. 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. Examples of patient factors likely to lead to the risk adjustment of heart valve replacement or repair episodes include cardiac and circulatory congenital anomalies, non-aortic heart valve procedures, or the presence of a concurrent CABG procedure. Over time, a payer may adjust risk factors based on new 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 heart valve replacement or repair episode is:

- **Follow-up care within the post-trigger window:** Percent of valid episodes where the patient receives relevant follow-up care within the post-trigger window (higher 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:

- **Participation in a QCDR:** Percent of valid episodes performed by a surgeon participating in a Qualified Clinical Data Registry (e.g., Society of Thoracic Surgeons National Database) (higher rate indicative of better performance).

- **Admission within the post-trigger window:** Percent of valid episodes with an included admission or relevant observation care within the post-trigger window (lower rate indicative of better performance).
- **Major morbidity:** Percent of valid episodes where the patient has a major morbidity within the episode window (lower rate indicative of better performance).
- **Mortality:** Percent of total episodes with patient mortality within the episode window (lower rate indicative of better performance).

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.

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