



Division of
**Health Care
Finance & Administration**

Health Care
Innovation Initiative

EPISODE DESIGN FEEDBACK SESSION

MAY 16, 2017



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ORTHOPEDIC AND CARDIAC EPISODES

Episodes Included in the Orthopedic & Cardiac Session

Total Joint
Replacement (TJR)

Bariatric Surgery

Acute
Percutaneous
Coronary
Intervention (PCI)

Non-Acute
Percutaneous
Coronary
Intervention (PCI)

Coronary Artery
Bypass Graft
(CABG)

Congestive Heart
Failure (CHF)
Acute
Exacerbation

Valve Repair &
Replacement

Approach to the feedback session and objectives for today's discussion

Approach & Process

1. **May 2017:** Gather feedback from Stakeholders across the state on the first 20 episodes implemented
2. **May-June 2017:** Conduct analysis to inform decision of how to incorporate feedback
3. **Fall 2017:** Release memo to public with all episode changes
4. **January 2018:** Incorporate selected changes into program for calendar year 2018

Objectives & Scope for Today

1. Briefly review the background and objectives of the Tennessee Health Care Innovation Initiative & Episodes of care
2. Review feedback received prior to the meeting regarding the orthopedic and cardiac episodes
3. Listen to and capture feedback *specific* to the orthopedic and cardiac episodes
4. Capture feedback on the program overall

The primary purpose of today's session is listening; the state will respond to and incorporate feedback as appropriate over the coming months

Tennessee Health Care Innovation Initiative



We are **deeply committed** to reforming the way that we pay for healthcare in Tennessee

Our goal is to **pay for outcomes and for quality care**, and to reward strongly performing providers

We plan to have value-based payment account for the **majority of healthcare spend** within the next three to five years

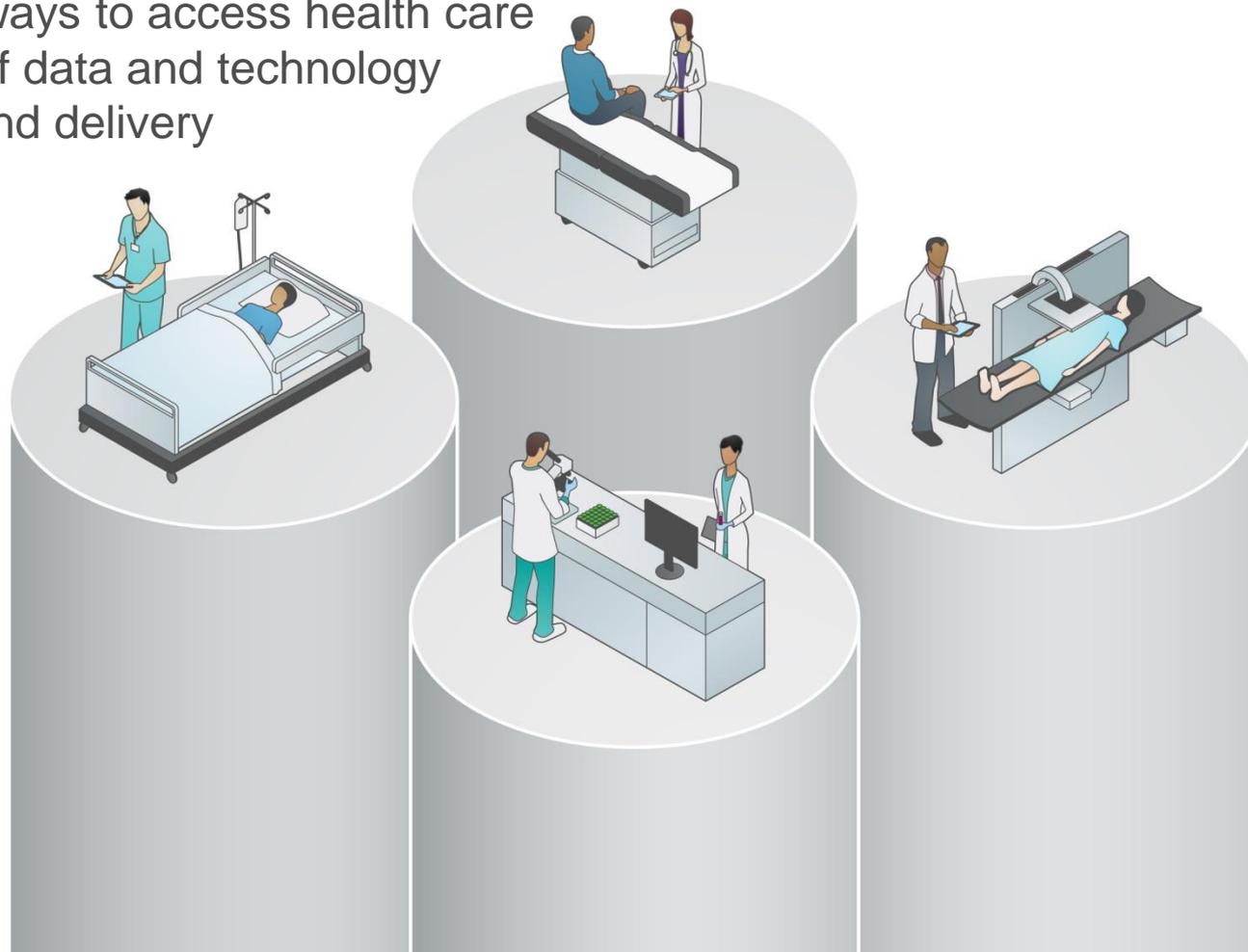
By **aligning on common approaches** we will see greater impact and ease the transition for providers

We appreciate that hospitals, medical providers, and payers have all demonstrated a **sincere willingness** to move toward payment reform

By working together, we can make significant progress toward **sustainable medical costs and improving care**

What changes do we see for the health care system?

- Silos are starting to come down
- Growth in new ways to access health care
- Increased use of data and technology
- New payment and delivery models



Over 40 episodes of care have been designed over the last 4 years

| Design year & wave | | Episode | Design year & wave | | Episode | Design year & wave | | Episode |
|-----------------------|------------------------------------|------------------------------|-----------------------------|--|---------------------------------|--------------------------------------|---|--|
| 2013 | 1 | Perinatal | 2016 | 5 | Breast biopsy | 2017 | 7 | Spinal fusion |
| | | Asthma acute exacerbation | | | Breast cancer, medical oncology | | | Spinal decompression (without spinal fusion) |
| | | Total joint replacement | | | Breast cancer, Mastectomy | | | Femur/pelvis fracture |
| 2014 | 2 | COPD acute exacerbation | | | Otitis media | | | Knee arthroscopy |
| | | Colonoscopy | | | Tonsillectomy | | | Ankle sprains, strains, and fractures |
| | | Cholecystectomy | Anxiety | Wrist sprains, strains, and fractures | | | | |
| | | PCI - acute | Non-emergent depression | Shoulder sprains, strains, and fractures | | | | |
| | | PCI - non acute | 2015 | 3 | Skin and soft tissue infections | Knee sprains, strains, and fractures | | |
| GI hemorrhage | Neonatal (Age 31 weeks or less) | Back/neck pain | | | | | | |
| EGD | Neonatal (Age 32 to 36 weeks) | | | | | | | |
| Respiratory Infection | Neonatal (Age 37 weeks or greater) | | | | | | | |
| Pneumonia | HIV | | | | | | | |
| 2015 | 4 | UTI - outpatient | Pancreatitis | | | | | |
| | | UTI - inpatient | Diabetes acute exacerbation | | | | | |
| | | ADHD | | | | | | |
| | | CHF acute exacerbation | | | | | | |
| | | ODD | | | | | | |
| | | CABG | | | | | | |
| | | Valve repair and replacement | | | | | | |
| | | Bariatric surgery | | | | | | |

Results for First Three Episodes

- ❖ Perinatal, total joint replacement and acute asthma exacerbation episodes showed total costs were reduced while quality was maintained in CY 2015.

**Perinatal: 3.4%
decrease in cost**

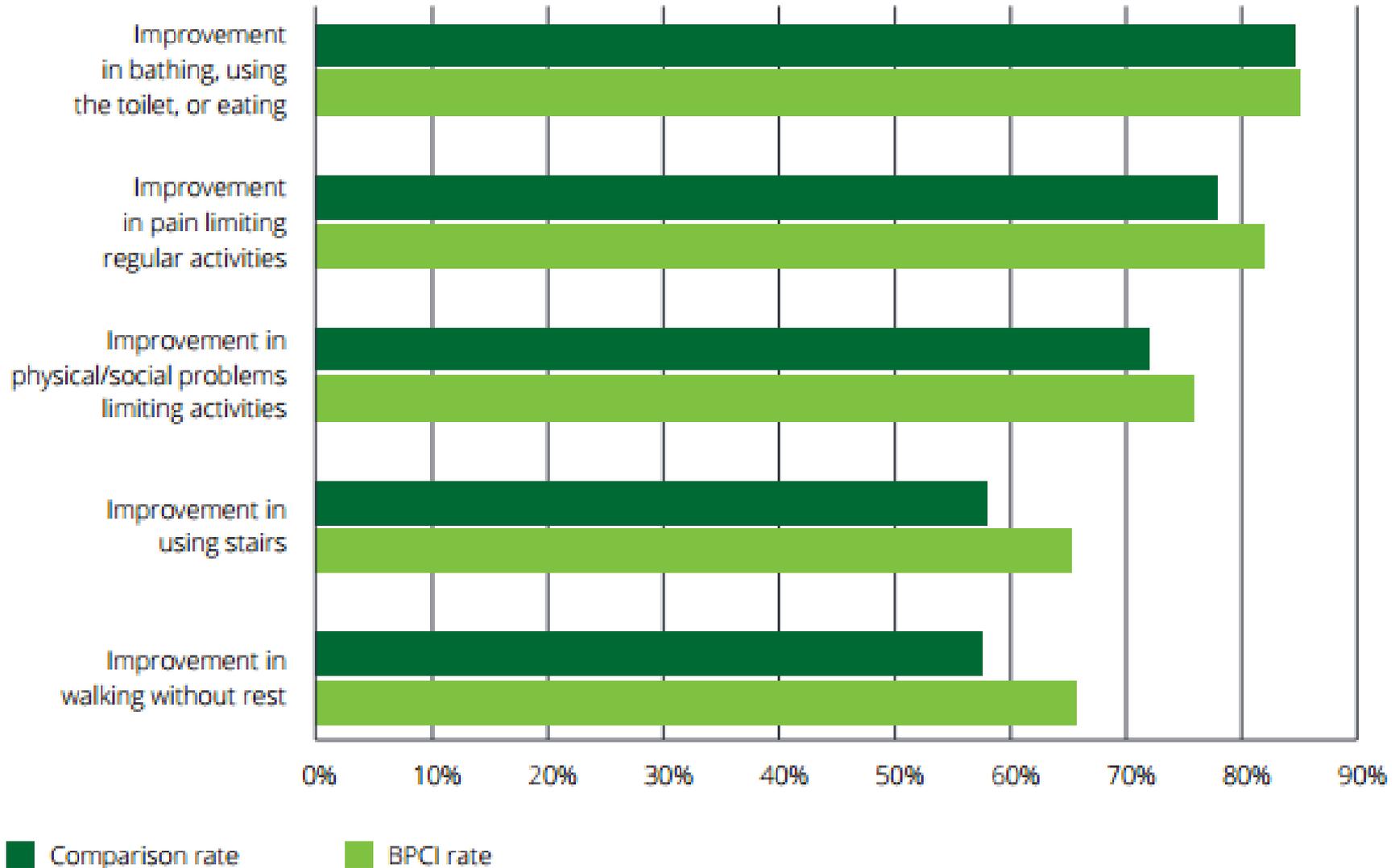
**Acute asthma
exacerbation: 8.8%
decrease in cost**

**Total joint
replacement: 6.7%
decrease in cost**

**Doctors and hospitals
reduced costs while
maintaining quality of
care**

**Wave 1 episodes
reduced costs by \$11.1
million**
(assuming a 3 percent increase
would have taken place in the
absence of this initiative)

Bundled services for major joint replacement of the lower extremity showed improvement in mobility measures for patients



Source: CMS Bundled Payments for Care Improvement Initiative Models 2-4: Year 2 Evaluation & Monitoring Annual Report, 2016.

Status of the launched Orthopedic and Cardiac Episodes

| | First Preview Report Sent | Performance Period |
|---|---------------------------|---|
| Total Joint Replacement (Wave I) | 2014 | 1 st : CY 2015 2 nd : CY 2016 3 rd : CY 2017 |
| Non-acute PCI, Acute PCI (Wave II) | 2015 | 1 st : CY 2016 2 nd : CY 2017 |
| CHF, CABG, Valve repair & replacement, Bariatric surgery (Wave IV) | Spring 2016 | 1 st : CY 2017 |

Total joint replacement episode definition

| Area | Episode definition |
|--|--|
| 1 Identifying episode triggers | <ul style="list-style-type: none"> A surgical procedure for total hip replacement or total knee replacement unless accompanied by a procedure modifier exclusion code |
| 2 Attributing episodes to quarterbacks | <ul style="list-style-type: none"> For each episode, the Principal Accountable Provider (PAP), or quarterback, is the orthopedic surgeon performing the total joint replacement procedure |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> Episode begins 45 days prior to date of admission for the inpatient hospitalization for the total joint replacement surgery and end 90 days after the date of discharge Prior to admission for surgery: Related labs and claims filed by the Quarterback During surgery admission: All claims included After discharge from surgery: <ul style="list-style-type: none"> Related claims only (radiology claims, claims filed by quarterback, all claims associated with a hip/knee ICD-9 diagnosis code) Readmissions: Readmissions 0-30 days after discharge for related care including care due to infections and complications, and follow-up evaluation & management, therapy and labs/imaging/other outpatient procedures 31-90 after discharge Medications: Relevant medication including anticoagulants, analgesics, iron, stool softener, anti-nausea, NSAID, and antibiotics |
| 4 Risk-adjusting and excluding episodes | <ul style="list-style-type: none"> Episodes affected by factors that make them inherently more costly than others are risk adjusted. Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk-adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> Business exclusions: Available information is not comparable or is incomplete (e.g., third party liability, non-continuous eligibility, left against medical advice, age 65 or older) Clinical exclusions: HIV, ESRD, pregnancy, organ transplants, sickle cell, blindness, malignant cancer, active cancer management, trauma, fractures/dislocations/open wounds, trauma, hemiplegia/paraplegia, lower limb amputation status High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <p>Tied to gain sharing:</p> <ul style="list-style-type: none"> None <p>Not tied to gain sharing:</p> <ul style="list-style-type: none"> 30-day all cause readmission rate (after applying readmission exclusions) Percent of patients with post-op Deep Venous Thrombosis (DVT)/Pulmonary Embolism (PE) within 30 days post-surgery Percent of patients with post-op wound infection rate within the post-trigger window Percent of patients with dislocations or fractures within the post-trigger window Average inpatient length of stay based on Medicaid covered days for episodes |



Non-acute and Acute PCI episode definitions

| Area | Episode definition |
|---|--|
| 1 Identifying episode triggers | <ul style="list-style-type: none"> ▪ A professional and a facility claim for PCI trigger the episodes ▪ Acute and non-acute episodes are distinguished from each other based on two acute indicators |
| 2 Attributing episodes to quarterbacks | <p>A For acute episodes, the Quarterback of the episode is the facility where the procedure is performed</p> <p>N For non-acute episodes, the Quarterback of the episode is the physician who performed the procedure</p> |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ All services during the procedure and relevant radiology, labs, pathology, office visits and medications before (for non-acute episodes) and after the procedure as well as care related to complications are included A For acute episodes, the episode begins on the day of the procedure (or admission if inpatient) and ends 30 days after the procedure (or discharge if inpatient) N For non-acute episodes, the episode begins 30 days prior to the procedure (or admission if inpatient) and ends 30 days after the procedure (or discharge if inpatient) |
| 4 Risk-adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Episodes affected by factors that make them inherently more costly than others are risk adjusted. ▪ Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk-adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> – Business exclusions: Available information is not comparable or is incomplete (e.g., third party liability, non-continuous eligibility, left against medical advice, age less than 18 years and age greater than 64) A – Clinical exclusions: Arteritis, cancer under active management, cardiogenic shock, circulatory congenital anomalies, coma, coronary artery bypass grafting, cystic fibrosis, end stage renal disease, valve congenital anomalies, multiple sclerosis, organ transplant, paralysis, Parkinson's, and sickle cell anemia N – Clinical exclusions: Arteritis, cancer under active management, cardiogenic shock, circulatory congenital anomalies, conversion to coronary artery bypass grafting during trigger window, end stage renal disease, heart valve congenital anomalies, multiple sclerosis, organ transplant, paralysis, Parkinson's, and sickle cell anemia – High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <p>Tied to gain sharing:</p> <ul style="list-style-type: none"> ▪ Percent of valid episodes with an included hospitalization in the post-trigger window <p>Not tied to gain sharing:</p> <ul style="list-style-type: none"> ▪ Percent of valid episodes where the professional trigger claim involves multiple vessels (including multiple branches) ▪ Percent of valid episodes with a repeat PCI in the post-trigger window |

Bariatric surgery episode definition

| Area | Episode definition |
|---|--|
| 1 Identifying episode triggers | <ul style="list-style-type: none"> ▪ A bariatric surgery episode is triggered by: <ul style="list-style-type: none"> – A professional claim that has one of the defined procedure codes for bariatric surgery – A facility claim that has a diagnosis code relevant to severe obesity or indicated comorbidities of obesity |
| 2 Attributing episodes to quarterbacks | <ul style="list-style-type: none"> ▪ The quarterback is the physician or physician group that performed the procedure ▪ The contracting entity ID of the physician (or group) on the professional claim will be used to identify the quarterback |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ Services to include in episode spend are: <ul style="list-style-type: none"> – All medical services and medications during the bariatric procedure – Specific evaluation and management, medications, procedures, imaging, testing, anesthesia, pathology, and care after discharge up to 30 days after discharge from the facility where the bariatric procedure was performed |
| 4 Risk adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Episodes affected by factors that make them inherently more costly than others are risk adjusted. ▪ Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk-adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> – Business exclusions: Available information is not comparable or is incomplete (e.g., third party liability, non-continuous eligibility, left against medical advice, age less than 18 years and age greater than 64) – Clinical exclusions: Patients receiving primary bariatric procedures that are not Roux-en-Y gastric bypass or vertical sleeve gastrectomy, including placement of adjustable gastric bands, patients receiving revisionary bariatric procedures – High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <ul style="list-style-type: none"> ▪ Tied to gain sharing: <ul style="list-style-type: none"> – Percent of valid episodes where the patient receives relevant follow-up care within 30 days of discharge ▪ Not tied to gain sharing: <ul style="list-style-type: none"> – Share of bariatric procedures performed in an accredited facility, e.g., through Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP). As this is a non-claims-based quality metric, information on how this metric will be calculated will be provided separately. – Percent of valid episodes where patients with metabolic syndrome and/or diabetes receive RYGB. – Percent of valid episodes with a relevant admission or relevant observation care within the post-trigger window. – Percent of valid episodes with a relevant ED visit within the post-trigger window. – Percent of total episodes with patient mortality within the episode window. – Percent of total episodes where the patient received a relevant re-operation, including wound debridement, during the post-trigger window. |

Coronary Artery Bypass Graft episode definition

| Area | Episode definition |
|---|---|
| 1 Identifying episode triggers | <p>A CABG episode is triggered by:</p> <ul style="list-style-type: none"> ▪ A professional claim that has one of the defined primary procedure codes for CABG ▪ An inpatient facility claim that has a diagnosis code relevant to CABG (e.g., coronary occlusion) <p><i>CABG procedures that are concurrent with heart valve replacement or repair procedures will not trigger episodes</i></p> |
| 2 Attributing episodes to quarterbacks | <p>The quarterback is the facility where the CABG was performed</p> <ul style="list-style-type: none"> ▪ The contracting entity ID of the facility on the inpatient facility claim will be used to identify the quarterback |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ Services to include in episode spend are: <ul style="list-style-type: none"> – All medical services and medications during the facility stay where the CABG is performed – Specific evaluation and management, medications, anesthesia, pathology, procedures, imaging, testing, and care after discharge up to 30 days after discharge from the facility where the procedure was performed |
| 4 Risk adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Episodes affected by factors that make them inherently more costly than others are risk adjusted. ▪ Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk-adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> – Business exclusions: Available information is not comparable or is incomplete (e.g., third party liability, non-continuous eligibility, left against medical advice, age less than 1 year and age greater than 64) – Clinical exclusions: emergent CABG procedures (ie. Those following a failed PCI), pre-existing endocarditis on admission, or pre-existing pneumonia on admission. – High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <ul style="list-style-type: none"> ▪ Tied to gain sharing: <ul style="list-style-type: none"> – 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. ▪ Not tied to gain sharing: <ul style="list-style-type: none"> – Percent of valid episodes performed by a surgeon participating in a Qualified Clinical Data Registry (e.g., Society of Thoracic Surgeons National Database). As this is a non-claims-based quality metric, information on how this metric will be calculated and what threshold it will use will be provided separately. – Percent of valid episodes with an included admission or relevant observation care within the post-trigger window. – Percent of valid episodes where the patient has a major morbidity, as defined in section 5.8, within the episode window. – Mortality: Percent of total episodes with patient mortality within the episode window. |

Heart Valve Repair & Replacement episode definition

| Area | Episode definition |
|---|--|
| 1 Identifying episode triggers | <p>A heart valve replacement and repair episode is triggered by:</p> <ul style="list-style-type: none"> ▪ A professional claim that has one of the defined procedure codes for heart valve replacement or repair ▪ An inpatient facility claim that has a diagnosis code relevant to heart valve replacement or repair episode <i>Heart valve replacement and repair that is concurrent with CABG will trigger a heart valve episode</i> |
| 2 Attributing episodes to quarterbacks | <p>The quarterback is the facility where the heart valve replacement or repair procedure was performed</p> <ul style="list-style-type: none"> ▪ The contracting entity ID of the facility on the inpatient facility claim will be used to identify the quarterback |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ Services to include in episode spend are: <ul style="list-style-type: none"> – All medical services and medications during the facility stay where the heart valve replacement or repair procedure is performed – Specific evaluation and management, medications, anesthesia, pathology, procedures, imaging, testing, and care after discharge up to 30 days after discharge from the facility where the procedure was performed |
| 4 Risk adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Episodes affected by factors that make them inherently more costly than others are risk adjusted. The TAG has recommended a specific list of factors for testing. ▪ Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> – Business exclusions: Available information is not comparable or is incomplete¹ – Clinical exclusions: acute ischemia-related admissions, pre-existing endocarditis, and pre-existing pneumonia – High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <ul style="list-style-type: none"> ▪ Tied to gain sharing: <ul style="list-style-type: none"> – 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. ▪ Not tied to gain sharing: <ul style="list-style-type: none"> – Percent of valid episodes performed by a surgeon participating in a Qualified Clinical Data Registry (e.g., Society of Thoracic Surgeons National Database). As this is a non-claims-based quality metric, information on how this metric will be calculated and what threshold it will use will be provided separately. – Percent of valid episodes with an included admission or relevant observation care within the post-trigger window. – Percent of valid episodes where the patient has a major morbidity, as defined in section 5.8, within the episode window. – Percent of total episodes with patient mortality within the episode window. |

CHF Acute Exacerbation episode definition

| Area | Episode definition |
|---|---|
| 1 Identifying episode triggers | <p>A congestive heart failure acute exacerbation episode is triggered by an inpatient admission or ED/Observation/IV infusion center outpatient claim, where either:</p> <ul style="list-style-type: none"> ▪ The primary diagnosis is one of the defined acute or unspecified CHF trigger codes; ▪ The primary diagnosis is one of the defined chronic CHF codes, with a secondary diagnosis code from the acute or unspecified CHF trigger or signs and symptom codes; or ▪ The primary diagnosis is one of the defined CHF signs and symptom codes, with a secondary diagnosis code from the acute, chronic, or unspecified CHF trigger codes |
| 2 Attributing episodes to quarterbacks | <p>The quarterback is the facility where the patient is treated</p> <ul style="list-style-type: none"> ▪ The contracting entity ID on the facility claim will be used to identify the quarterback |
| 3 Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ Services to include in episode spend are: <ul style="list-style-type: none"> – All medical services and medications during the trigger window¹ – Specific anesthesia, evaluation and management, medications, procedures, imaging, testing, and care after discharge up to 30 days after discharge from facility where the CHF acute exacerbation was treated |
| 4 Risk adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Episodes affected by factors that make them inherently more costly than others are risk adjusted. The TAG has recommended a specific list of factors for testing. ▪ Episodes which are not comparable or affected by factors that make them inherently more costly but that cannot be risk adjusted for are excluded. There are three types of exclusions: <ul style="list-style-type: none"> – Business exclusions: Available information is not comparable or is incomplete – Clinical exclusions: Cancer under active management (active cancer), end stage renal disease (ESRD), heart transplant, history of and/or concurrent ECMO, pregnancy during episode window, presence and/or placement of ventricular assistance device (VAD) – High cost outlier exclusions: Episode's risk adjusted spend is three standard deviations above the mean |
| 5 Determining quality metrics performance | <ul style="list-style-type: none"> ▪ Tied to gain sharing are: <ul style="list-style-type: none"> – Percent of valid episodes where the patient receives relevant follow-up care within 30 days of discharge ▪ Not tied to gain sharing are: <ul style="list-style-type: none"> – Percent of valid episodes where the patient receives relevant follow-up care within 7 days of discharge – Percent of valid episodes with relevant admission or observation care within 30 days of discharge – Percent of valid episodes with relevant ED visit within 30 days of discharge – Percent of total episodes with patient mortality within the episode window – Percent of total episodes where patients received quantitative symptom/activity assessment during episode window |

¹ During the day or days of the facility stay (if any) where the CHF is treated

Examples of Changes made based on previous Episode Design Feedback Sessions

1 All Episode Feedback

- *Aligning readmission logic with future waves of episodes.*

In 2015, all wave one episodes of care included readmissions based on an exclusionary logic. Following the Feedback Session, readmissions were based on an inclusionary logic, meaning that only specifically related admissions are now included.

2 Episode: Total Joint Replacement

- *Exclude codes not directly related to the hip and knee replacement from the episode spend in the post-trigger window.*

While some complications not directly related to the knee and hip are important to include within the post-trigger window, ICD-10 codes relating to “Diseases of the musculoskeletal system and connective tissue” and “Congenital anomalies” that affect the spine and upper extremities (i.e. above the hip and pelvis) will no longer be included in the episode spend in the post-trigger window

Orthopedic and Cardiac Episode feedback received to date

| Area | Feedback |
|---|---|
| Identifying episode triggers | <ul style="list-style-type: none"> ▪ Revise triggering logic for the Valve Repair and Replacement episode to only include isolated valve repairs. |
| Attributing episodes to quarterbacks | <ul style="list-style-type: none"> ▪ None |
| Identifying services to include in episode spend | <ul style="list-style-type: none"> ▪ None |
| Risk adjusting and excluding episodes | <ul style="list-style-type: none"> ▪ Exclude children under 18 years of age from the CABG episode. ▪ Exclude children under 18 years of age from the Valve Repair and Replacement episode. ▪ Exclude episodes in which a surgery occurs on a child's index admission for the Valve Repair and Replacement episode. |
| Determining quality metrics performance | <ul style="list-style-type: none"> ▪ Include CPT code 99024 in follow-up quality metric to account for post-surgical follow-up with provider for the CABG and Valve Repair and Replacement episodes. ▪ Remove unrelated codes (e.g. wrist, ankle) from the Fracture and Dislocation quality metric. |

Topics for Discussion

Design Dimensions

1

Identifying episode triggers

2

Attributing episodes to
quarterbacks

3

Identifying services to include in
episode spend

4

Risk adjusting and excluding
episodes

5

Determining quality metrics
performance

General Episode Feedback

Next steps following this feedback session

- **Review** all feedback received both prior and during the feedback session
- **Analyze** the potential changes and possible impact on episode design
- **Release** memo summarizing changes to episode design in the late-summer
- **Incorporate** changes that need to be made for the 2018 performance period

Thank you for participating!

Please contact payment.reform@tn.gov with any questions or visit our website at: www.tn.gov/hcfa/topic/episodes-of-care