1-25-2022

Project #25: Improving HFH Overall Hospital Quality Star Rating through CMS Patient Safety Indicators (PSI) 90

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#25

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(HFH)

IMPROVING HENRY FORD HOSPITAL'S OVERALL HOSPITAL QUALITY STAR RATING THROUGH PATIENT SAFETY INDICATOR (PSI) 90

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AIM

Problem Statement:
Henry Ford Hospital's PSI Composite Values for 2019 and 2020 were above the Centers for Medicare and Medicaid Services (CMS) PSI National Composite Value which negatively impacted HFH's Overall Hospital Quality Star Rating.

Improvement (Goal) Statement:
Reduce HFH's PSI Composite Value for 2021 to a level below CMS's PSI National Composite Value.

PLAN: CURRENT STATE

Medical records triggered for PSI 90 based on ICD-10 diagnosis/procedure codes and were billed to the appropriate payor. As such, a sample of case reviews were reviewed and identified several opportunities for improvement.

Table 1

HFH PSI 90 Composite Value Trend

Opportunities for Improvement:

- Establish a process for PSI 90 case review
- Recruit a multidisciplinary team for case review
- Validate translation of clinical information into diagnostic/procedure codes
- Track/trend case reviews (PSI measure, service line, procedure type, etc.)

DO: CORRECTIVE ACTIONS / INTERVENTIONS

- Commission QCOT for the development of a Quality Outcomes Committee
- Appoint representatives from nursing, medicine, and inpatient coding as committee members
- Collaborate with billing to temporarily delay processing bills of service for cases undergoing PSI review
- Track/trend PSI case reviews weekly (review summary, follow-up actions, outcome, payor, etc.)
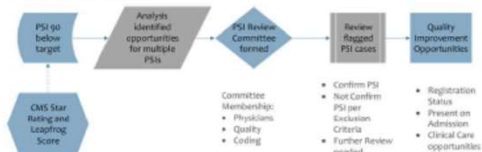
CHECK (EVALUATION OF CHANGES)

- Data was tracked/trended in real time via a QOC PSI log maintained by the QOC facilitator. Measurements included:
  - PSI Measure
  - Payor
  - Primary service line, involved provider
  - Follow-up actions
  - Outcome
- Data was retrospectively reconciled by comparing reports from EPIC and Premier against the QOC PSI log
  - Missed cases identified through reconciliation were reviewed/rebilled if applicable
- Initial trends showed steady improvement; however, it was some PSI measures were flagged as outliers.
- PSI 6 was consistently validated for a specific Interventional Pulmonology (IP) procedure type resulting in a postoperative pneumothorax due to a discrepancy in the AHRQ exclusion criteria.
  - QOC commissioned a sub-committee of clinical experts to perform a deeper analysis and literature review.
  - A letter to the AHRQ referencing medical literature and the inconsistency in the exclusion criteria was sent on behalf of the HFH QOC and IP leadership.
  - AHRQ revised the exclusion criteria which impacts all CMS participating facilities
- PSI measures triggering at a higher rate per month required recurring collaboration with specific service lines
  - Service line leadership was commissioned to identify quality leads
  - Subject matter experts were invited to participate as ad hoc QOC members
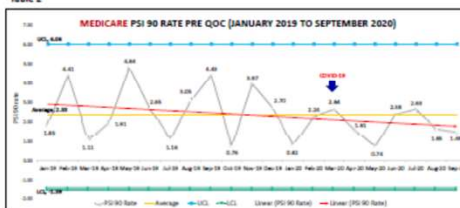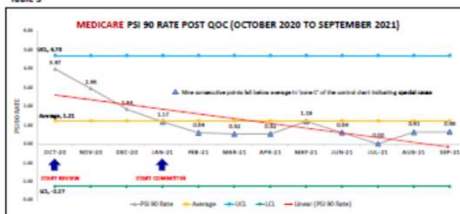
MEASURES

Table 2

MEDICARE PSI 90 RATE PRE QOC (JANUARY 2019 TO SEPTEMBER 2020)

Table 3

MEDICARE PSI 90 RATE POST QOC (OCTOBER 2020 TO SEPTEMBER 2021)

ACT: SUSTAIN AND SPREAD

SUSTAIN:

- Maintain the Quality Outcomes Committee meetings
- Report bi-annually to the HFH Quality and Safety Committee
- Reconcile data across quality reporting systems (EPIC, Premier, 3M)

SPREAD:

- Collaborate with department chairs to track/trend PSI by service line
- Identify additional service line quality leads and/or subject matter experts for PSI review
- Disseminate provider education tailored to individual service lines
- Systemic education (quality, coding, CDI) to create awareness to the QOC and PSI review process by presenting and sharing data across service lines, business units, etc.

KEYS TO SUCCESS / LESSONS LEARNED

CODING:

- Impacts hospital reimbursement and quality measurement reporting
- Dependent on provider documentation
- Sign/Symptom vs. Diagnosis
- Subject to coding guidelines

DOCUMENTATION:

- Proper identification or primary vs. secondary diagnoses
- Use of consistent language
- Delineate current vs. historic conditions
- Capture diagnoses present on admission in the discharge summary
- Document "rule out", "consider", and/or "possible" for tentative conditions
- Avoid abbreviations

PSI MEASURES:

- Lack time specifications
- Variable applicability depending on clinical scenario
- Highly interpretive

REPORTING PLATFORMS:

- Variability in how each platform captures and reports PSI data (CMS vs. Benchmarking tools)
- Variability in the timeframe each platform reports PSI outcomes

Additional Photos or Visuals

Table 4

Two-Sample t-Test:		
	PRE QOC	POST QOC
Time Frame	Jan 2019 – Sep 2020	Oct 2020 – Sep 2021
Mean	2.334839772	1.212195138
P(T<=t) two-tail	0.015780649	

A p-value less than 0.05 is statistically significant

Figure 1

Figure 2

LEAPFROG HOSPITAL SAFETY GRADE CALCULATOR FOR HFH		
CMS Medicare PSI 90 Composite	1.47	0.76
Hospital Safety Grade	C	A

- Scored high in in **Safety/Quality, Value/Cost Efficiency**, and **Growth and/or Spread**

- **Team Members include:**

- Anna Gurgul, BSN , RN

- Edward Pollak, MD, HFH Chief Quality Officer

- Vernal Tiller, PhD, RN, Quality Director;

- Danielle Shellabarger, RN, Quality Manager

- Santosh Mudiraj, MBBS, MPH, PI and Analytics Manager

- **And many many more…**