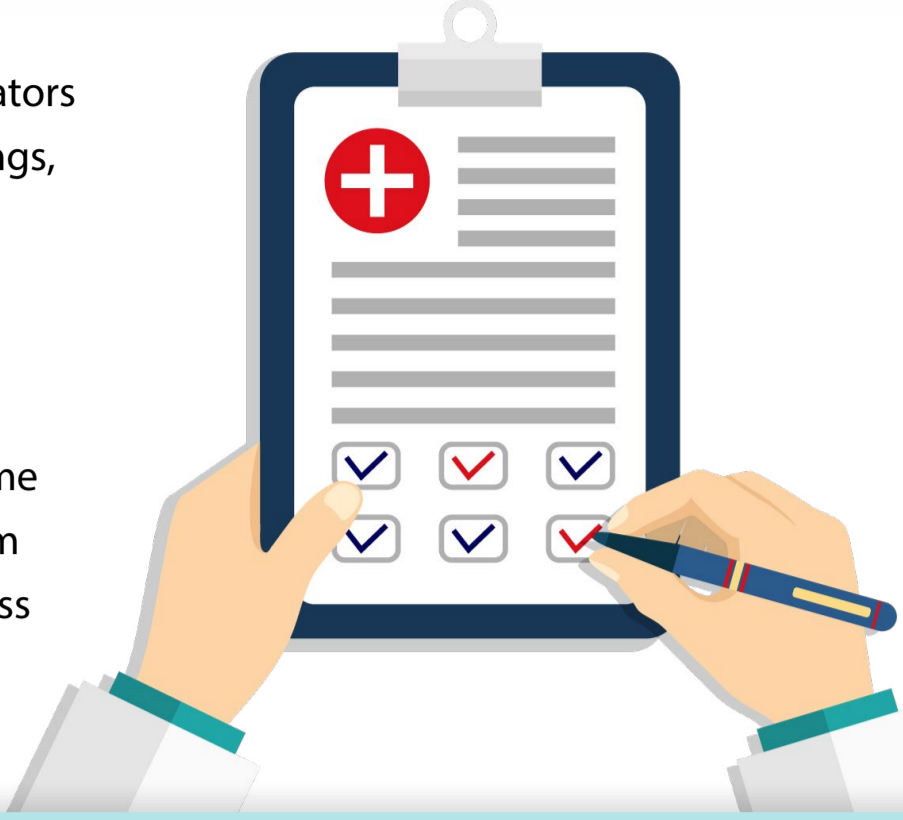


How Variation in the Reporting of Elective Surgeries Can Impact Patient Safety Indicators

Hospital safety is routinely measured by Patient Safety Indicators (PSIs), which can influence public perception, hospital rankings, and even reimbursement rates. But the coding of PSIs within hospitals depends on variable, sometimes opaque, criteria.

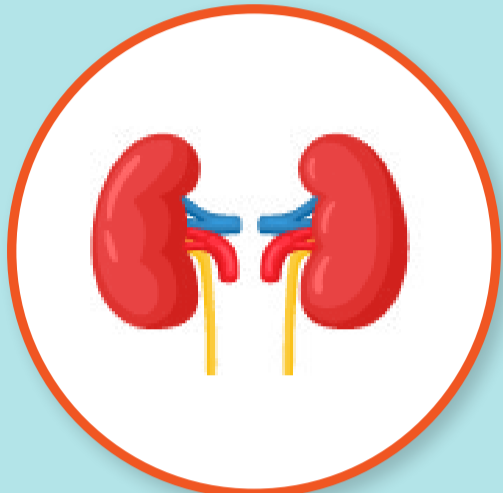
A study from the August 2022 issue of *The Joint Commission Journal on Quality and Patient Safety (JQPS)* suggests that some hospitals may classify admissions in a way that exempts them from elective-based PSI scores, a practice that may lead to less reliable PSIs.



PATIENT SAFETY INDICATORS

PSIs are largely calculated from inpatient claims data. All PSI measures based on surgical diagnosis-related groups (DRGs) include claims associated with elective admissions, but some exclude nonelective admission types such as urgent and emergency.

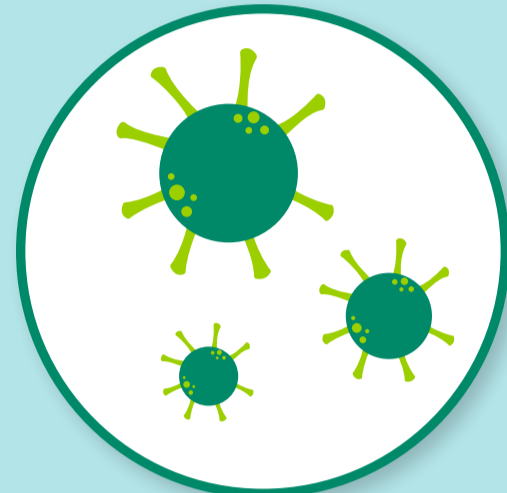
Elective-only PSIs include:



PSI 10
postoperative acute kidney injury requiring dialysis rate



PSI 11
postoperative respiratory failure rate



PSI 13
postoperative sepsis rate

THE QUESTION

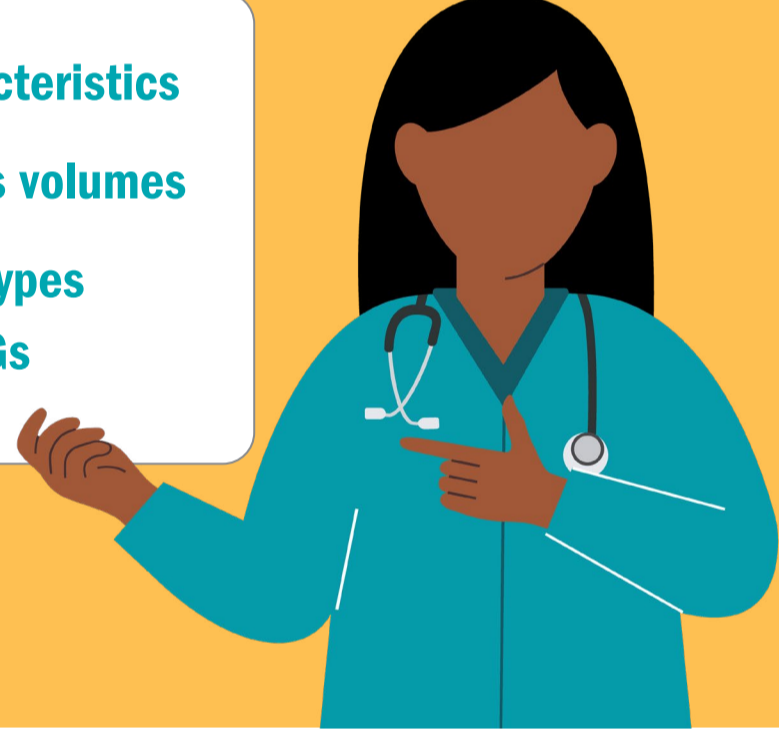


Can low percentages of elective admissions be explained by hospital characteristics, surgical claims volumes, or the numbers and types of surgical DRGs associated with claims? If not, variation in admission classification may be responsible.

THE STUDY

Multiple regression was combined with machine learning to analyze Medicare inpatient claims data reported by **3,484 hospitals** during the 2015–2017 PSI measurement period. The average percentage of elective (APE) admissions across DRGs was examined in relation to:

- Hospital characteristics
- Surgical claims volumes
- Numbers and types of surgical DRGs



THE TAKE-AWAYS



3,484 HOSPITALS WERE STUDIED

96 hospitals were low APE outliers



72 hospitals were high APE outliers

73.9% of variation in APE was explained

Key variables:
Surgical claims volume and 16 surgical DRGs

Low APE outliers were **disproportionately exempt** from elective-based PSI scores, suggesting that some hospitals may have classified admissions in a way that exempted them from elective-based PSI scores.*



Exempt from PSIs 10, 11 or 13

Non-outliers **6.1%**

High outliers **6.9%**

Low outliers **49.2%**

Exempt from PSIs 10, 11 AND 13

Low outliers **45.9%**

* 35 low APE outliers were excluded due to discrepant data

The study shows that transparency into admission classification policies is needed to ensure fair and reliable use of PSIs when ranking hospitals and adjusting payments. Alternatively, PSIs may need modifications to rely on externally validated criteria.

To learn more about this study, visit: [https://www.jointcommissionjournal.com/article/S1553-7250\(22\)00103-9/fulltext#articleInformation](https://www.jointcommissionjournal.com/article/S1553-7250(22)00103-9/fulltext#articleInformation)