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When Payment Models Distort Perceptions and Care Delivery for Patients with Heart Failure

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Behavioral economics is a social science that tries to understand how human and organizational psychological factors interact with incentive structures that drive micro and macro decision-making. Payment models for hospital services are known to influence medical documentation, coding practices, physician behavior, and patient experiences. The Centers for Medicare & Medicaid Services (CMS) is the single largest payer for healthcare services in the United States. Shifts in CMS payment models can substantially influence documentation, coding, and care delivery, often with unintended consequences. The CMS “Hospital Quality Initiatives” include three large programs – the Hospital Readmission Reduction Program (HRRP), Hospital Value-Based Purchasing (VBP), and the Hospital-Acquired Condition Reduction Program (HACRP) – that administer substantial financial penalties (up to 3%, 2%, and 1% of the total annual CMS hospital payments respectively) for risk-adjusted performance metrics for select discharge diagnoses. Patients admitted for acute decompensated heart failure (HF), a common and costly condition, are featured prominently in both HRRP and VBP payment models. Therefore, an index HF admission triggers several potential financial penalties from the perspective of a healthcare system related to 30-day readmission and mortality rates.

In the February 2019 issue of the Journal, Walkey et al. used a representative administrative claims database of U.S. hospitals and observed coding shifts for a growing proportion of patients with HF away from a primary discharge diagnosis of HF to acute respiratory failure (ARF) between 2006 to 2014. The prevalence of primary ARF and secondary HF was 0.4% in 2006 and increased 8.5-fold to 3.4% by 2014. This is concerning in that hospitals may have learned to game discharge diagnoses secondary to financial incentives that would offload the sickest patients with HF into alternative diagnosis-related group (DRG) category not monitored by the
CMS quality improvement programs. One would expect this simple reclassification to improve both readmissions and mortality metrics for patients with a primary discharge diagnosis of HF, without any actual change in care or clinical outcomes. The authors note that the shift in coding practices misrepresents risk-adjusted mortality rates when hospitals exclude these patients with HF from index events with the increasingly prevalent coding practice.

These observations add to concerns that policies that incompletely identify a cohort with HF or focus solely on outcomes not properly risk-adjusted do not achieve their stated goals. The hospital risk-standardized 30-day readmission measures which serve as the basis for HRRP penalties utilize only administrative variables, consistently demonstrate poor discrimination and fail to account for the competing risk of mortality. As a result, hospitals are profiled and penalized not based on the quality of care provided but based on the patients under their care. Furthermore, some policies may encourage lower quality care that is not readily observable or easily measured. In parallel with the current work, health services researchers have demonstrated that patients with HF are increasingly triaged to observational status or discharged from Emergency Departments directly home to avoid being counted as 30-day readmissions. With the implementation of HRRP, recent studies identified likely upcoding of comorbid conditions along with changes in the CMS claims submission process that artificially lowered risk-adjusted 30-day readmission rates. What was initially touted as evidence of an early policy success, turned out to be substantially overstated. Overall, the observable changes in practices after implementation of new CMS payment policies were gaming of administrative coding and inappropriate triage, rather than improvements in transitions of care, outpatient disease management, and use of evidence-based, guideline-directed clinical practices. Had the quality of
hospital-based HF care actually improved one would expect reductions all types of urgent returns
to the hospital in the first 30 days and in both mortality and readmission rates.

The greatest concerns with releasing policies without prior testing and prospective monitoring is
that vulnerable patients could be unintentionally harmed as a result. After CMS announced and
instituted HRRP, initial reports only focused on changes in inpatient 30-day rehospitalization
rates, cost saving, and claims of policy success. Subsequently, independent analyzes have
demonstrated that after the HRRP announcement and penalty phase hospitalized patients with
HF have had notable increases in post-discharge short-term mortality. The timing of the
increases in 30-day mortality closely corresponded to the timing of the declines in
rehospitalization and were not explained by increased use of hospice care. Further, the increase
in mortality associated with the HRRP was largely driven by patients who were not readmitted to
the hospital but died within 30 days of discharge. These findings increase the likelihood that
HRRP financially incentivized inappropriate triage and restricting of inpatient readmissions
accounts for the harm observed. This occurred despite being a period of improved use of
guideline-directed medical therapies and approvals for novel therapies shown to reduce both
readmission risk and mortality. The most sensitive and vulnerable hospitalized patients with
HF may have experienced unintended consequences related to inappropriate triage and arbitrary
financial penalties to their hospitals that lowered the quality of care delivered.

To improve the likelihood of actual success and to minimize risks, new policies should be
formulated in close consultation with clinicians actively involved in care, professional societies,
patients, and caregivers. Policies need to be implemented with evidence-based guidance on how to safely and effectively achieve the stated goals along with provision of necessary resources.

Prospective testing prior to national implementation is also advisable. First testing the HRRP in one or more demonstration projects, may have allowed detection of policy motivated increases in severity coding, shifts in primary diagnoses assigned, adverse triage strategies, and unintended harm. With such testing, significant modifications to the policy could have been made prior national implementation and millions of patients being exposed to increased mortality risk.

Rigorous, proactive, truly independent, monitoring and evaluation of policies should be mandatory to discourage and detect gaming, ensure stated aims are being achieve, and rapidly detect if any unintended consequences emerge.

There is no evidence that the CMS financial incentives programs have significantly improved patient-centered outcomes in a meaningful way. It was misguided to base national polices on an untested premise that the causal pathway between readmission penalties and improved care quality/outcomes was direct, not susceptible to gaming, and without potential risks. Absconding patients into diagnoses that avoid financial penalties and utilizing higher severity administrative codes does nothing to improve the quality of care. Failing to alter or halt policies that have been associated with patient harm would be egregious. Performance metrics that map to actual evidenced-based practices may be a more consistent way to incentivize and improve clinical care in a meaningful way. Much of the success in reducing variations and delivering evidenced-based care in acute coronary syndromes was based on direct actionable performance metrics. Refocusing efforts on improving transition of care, greater access to HF disease management...
programs, and receipt of evidenced-based treatments are far more patient-centered and safer approaches to improve outcomes.
References


