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EDITORIAL

Hospital Readmissions: New Pandemic, Same Old Problems?

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ransitions of care remain a cornerstone of health care quality. Transfer of care from hospital to post-acute care setting requires a complex series of activities that place patients at high risk for adverse events.¹ Not simply a task of transfer of information from inpatient to outpatient clinicians, a handoff of care coordination must also occur from the inpatient health care team to the patient and their family caregiver(s). Centers for Medicare and Medicaid Services (CMS) aimed to focus health systems' attention on optimizing this process with the Hospital Readmission Reduction Program (HRRP) by identifying excessive 30-day rehospitalization rates as a key quality measure, with financial penalties of up to 3% of payment on all Medicare admissions.² Increasingly, health systems recognize patients and their family caregivers as integral to individualizing discharge planning to ensure a smooth and successful transition of care.³

The results of research by Taupin and colleagues published in this issue of The Joint Commission Journal on Quality and Patient Safety provide insight into potential factors influencing preventability of 30-day revisits (rehospitalization or ED visit) after hospitalization with COVID-19.4 This single-site, retrospective cohort study looked at patients admitted with an index admission of COVID-19, identified by a positive molecular assay, who were then readmitted to the same site within 30 days. The researchers used a systematic approach, developed through prior research by the Hospital Medicine Research Network (HOMERuN),⁵ to conduct a post-hoc analysis of readmissions to determine preventability. Two physician experts used a root cause analysis (RCA) tool to assign a preventability score for each readmission on a six-point scale, while a third physician reconciled disagreements. The researchers deemed 26% of readmissions as preventable and concluded that inappropriate choice of discharge location and misunderstanding of discharge medication regimen were the two most common causes of preventable readmissions. The study's small sample size revealed only five patients (25% of all preventable revisits) with contributing factors directly related to COVID.

While other researchers have looked at readmission and ED revisits among patients hospitalized for COVID-19,⁶

this study focused on potentially preventable readmission factors for such patients. Notably, the retrospective cohort design with use of RCA chart review allows for relative ease of study replication at other institutions. There are a few design flaws that could be corrected in future studies. Expert opinion can be highly subjective, and assessment of interrater reliability scoring is desirable. A positive test result for SARS CoV-2 confirmed the likely diagnosis of COVID-19 as the etiology for hospitalization in this study, but it does not appear the researchers confirmed this clinical diagnosis; in other words, a patient might have been hospitalized for cellulitis with no symptoms of COVID-19 but had a positive screening test. Additionally, only same-hospital revisits were included in the study's cohort, thus likely underestimating re-visits.

Delineating preventable from nonpreventable readmissions is a major concern with using readmission rates for quality measurement. The median of preventable readmissions is commonly cited as $\sim 25\%$ of total readmissions.⁷ However, a systematic review documented a wide range of preventable readmission rates ranging from 5% to 79%, indicating a lack of consensus on what represents a preventable readmission.⁷ While many organizations advocate for the use of RCA to determine the preventability of readmission and the presence of preventable risk factors, the application of RCA could benefit from better standardization and validation. Commonly used RCA tools include those from the Institute for Healthcare Improvement (IHI) and the Agency for Healthcare Research and Quality; the latter was adapted from the IHI RCA tool.^{8,9} These tools utilize brief, targeted interviews of key stakeholders in the discharge process. Both tools identify patients and family caregivers as key stakeholders, with the IHI RCA tool also including the health care team as part of the interview. These tools then provide probing questions for the review team that are meant to help analyze interview answers, and ultimately "seek to identify clinical, behavioral, social, and logistical factors that might have contributed to the readmission."9 Taupin and colleagues' RCA approach differed from these RCA tools by focusing exclusively on expert chart review and utilizing Ideal Transitions of Care domains for the identification of contributing factors, foregoing interviews of physicians, patients, and their family caregivers.4,10

This study highlights important points to consider within the broader context of transitions of care during

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the COVID-19 pandemic. First, CMS recognized the potential effect of COVID-19 on readmissions from pneumonia as a primary cause of hospitalization and ICU care during the pandemic. Based on this, CMS elected to temporarily suppress this readmission rate's inclusion in hospitals' HRRP calculated payment reduction during FY22.¹¹ Methodologically, similar studies should strongly consider including patient and family caregiver opinion regarding factors that led to readmissions. This also speaks to the necessity of individualized patient discharge planning with patients and their family caregivers to mitigate any anticipated risk factors. Use of expert opinion and chart review remains a viable option for RCA, but given the degree of subjectivity, use of interrater reliability is needed for standardization. Nonetheless, use of RCA likely remains a valuable tool in determining the preventability of readmissions and the presence of associated risk factors through the combination of interviews, expert opinion and potentially machine learning analyses of electronic health records. Finally, while not discussed in the article, consideration of patients' unmet health-related social needs is of vital significance during transitions of care.¹² Not surprisingly, the COVID-19 pandemic exposed significant inequities in health care delivery and highlights the importance of considering social determinants of health and unmet health-related social needs within the discharge planning process to reduce readmissions.¹³

Readmissions place a burden on health care systems whose hospitals are filled with patients during this pandemic, and a significant burden on our patients and their family caregivers. These burdens represent a continual opportunity for growth and improvement for quality and patient safety by identifying and reducing readmissions deemed potentially preventable.¹⁴ This study emphasizes that among patients with COVID-19, the vast majority of readmissions still fall under broad categories of risk factors that plagued our national health care system before the pandemic. Hospitals and clinicians must continue to review known fundamental risk factors for high-risk readmissions and address them. Individualized discharge planning with the inclusion of patients and their family caregivers, especially to address social determinants of health, is key to mitigating readmission risk factors and requires institutions to continually reevaluate their discharge planning approach.

REFERENCES

- Agency for Healthcare Research and Quality. Readmissions and Adverse Events After Discharge. Accessed Sep 5, 2021. https://psnet.ahrq.gov/primer/readmissions-andadverse-events-after-discharge.
- Centers for Medicare & Medicaid Services Hospital Readmissions Reduction Program (HRRP). CMS. Updated. Aug 6, 2021. Accessed Sep 5, 2021 www.cms.gov/Medicare/ Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/ Readmissions-Reduction-Program.
- Shah NR, Drane A. How health systems can care for caregivers. NEJM Catalyst. 2021;7.
- Taupin D, et al. Preventability of 30-day hospital revisits following admission with COVID-19 at an academic medical center. Jt Comm J Qual Patient Saf. 2021;47(11) xxx-xxx.
- Auerbach AD, et al. Preventability and causes of readmissions in a national cohort of general medicine patients. JAMA Intern Med. 2016;176(4):484–493.
- Somani SS, et al. Characterization of patients who return to hospital following discharge from hospitalization for COVID-19. J Gen Intern Med. 2020;35(10):2838–2844.
- van Walraven C, et al. Proportion of hospital readmissions deemed avoidable: a systematic review. CMAJ. 2011;183(7):E391–E402.
- Institute for Healthcare Improvement. IHI STAAR Root Cause Analysis Tool. Mar 8, 2021. Accessed Sep 5, 2021. https://hqic-library.ipro.org/2021/03/08/ihi-staar-rootcause-analysis-tool/.
- Agency for Healthcare Research and Quality. Designing and Delivering Whole-Person Transitional Care. Aug 2014. Accessed Sep 5, 2021. https://www.ahrq.gov/patient-safety/ settings/hospital/resource/guide/tools.html.
- Burke RE, et al. Identifying keys to success in reducing readmissions using the ideal transitions in care framework. BMC Health Serv Res. 2014;14:423.
- Centers for Medicare & Medicaid Services. FY 2022 IPPS Final Rule Home Page. Updated Aug 13, 2021. Accessed Sep 5, 2021. www.cms.gov/medicare/acute-inpatient-pps/ fy-2022-ipps-final-rule-home-page.
- Bensken WP, Alberti PM, Koroukian SM. Health-Related Social Needs and Increased Readmission Rates: Findings from the Nationwide Readmissions Database. J Gen Intern Med. 2021;36(5):1173–1180.
- Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and Racial/Ethnic Disparities. JAMA. 2020;323(24):2466–2467.
- Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med. 2009;360(14):1418–1428.

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