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Getting Unstuck: Challenges and Opportunities in Caring for Patients Experiencing Prolonged Hospitalization While Stable for Discharge

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ABSTRACT

Many physicians care for patients who remain in the hospital for prolonged periods despite being “medically ready” or stable for discharge. However, this phenomenon is not well-defined, and optimal strategies to address the problem are not known. A prolonged hospitalization past the point of medical necessity can harm patients, frustrate care teams, and is costly for the health care system. In this perspective, we describe opportunities to improve value of care for these patients through the lens of the Quadruple Aim, a common framework used to guide health care transformation efforts. We then offer recommendations, including some employed by our hospitals, for clinicians, researchers, and health care systems to improve the care for patients who are “stuck” in the hospital.

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INTRODUCTION

A hospitalized patient is ready for discharge when acute medical issues have been addressed and sufficient transitional planning has occurred. However, even when these criteria are met, some patients are still unable to leave the hospital and may remain hospitalized for substantial periods of time. In the United States, only 2% of hospitalizations are prolonged (≥ 21 days), but they account for nearly 15% of overall hospital bed-days¹; a large proportion of these may occur when discharge is medically appropriate.²⁻⁴ Barriers to discharge for patients that are “medically ready” are multifaceted and often related to underlying clinical,

financial, behavioral, or psychosocial conditions in already marginalized, vulnerable individuals.⁵ In many respects, these are symptoms of larger issues in our health care system, including a lack of long-term care services, a dearth of critical community resources, and administrative inefficiencies that put these patients at undue risk.

Most recognize that patients are exposed to hospital-associated harms with prolonged hospitalization after they are deemed medically ready for discharge, but it also has important ramifications for the hospital and health care team. We have observed a consistent cohort of these patients at our hospitals (a Veterans Affairs [VA] and county safety net hospital, both urban and academically affiliated) and know that we are not alone, but there is scant medical literature and research to guide us. The Institute for Healthcare Improvement (IHI) recommends the Triple Aim as a framework to guide health care system improvement. In addition to 1) improved care, 2) improved patient experience, and 3) lower cost, the Quadruple Aim expands this idea to include 4) improved work life of clinicians.⁶⁻⁷

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We believe that addressing the needs of patients with prolonged hospitalization while medically ready for discharge is a crucial imperative that directly aligns with the Quadruple Aim. In this article, we will describe the available evidence, relay experiences from our institutions, and provide recommendations to frontline providers, health care systems, and researchers. Our goal is to describe both the challenges and the opportunities in the care of these patients and to offer recommendations for a path forward.

A Quadruple-Aim Framework to Understand the Opportunities for Higher Value Care in Patients Experiencing Prolonged Hospitalization While Medically Ready for Discharge

An Opportunity to Provide Higher Quality Care. Minimizing harm to patients is a core tenet in medicine. Adverse events accrue during a hospitalization regardless of the patient's level of medical acuity;⁸ these patients have a longer exposure to potential harms, including medication errors, hospital-acquired infections, and pressure ulcers,⁹ as well as the loss of functional mobility.¹⁰ Paradoxically, "medically ready" patients with prolonged hospitalization are also at risk for both over- and underutilization of resources. For example, patients may undergo more routine testing than clinically indicated simply because of its relative availability and inpatient norms,¹¹ while at the same time the clinical inertia that commonly develops during a prolonged hospitalization may delay appropriate evidence-based care.¹²⁻¹³ Furthermore, guideline concordant chronic disease management and preventative care may be appropriate for very prolonged hospital stays (ie, months) but is not the standard.¹⁴

The quality of care of other patients may be affected by these prolonged hospitalizations. Because of decreased bed availability, patient flow is negatively affected. Consequences include increased boarding times in the emergency department and inability to accept transfers from other hospitals.¹⁵ Although our interest in this patient population predates the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, it has highlighted the critical importance of hospital capacity, including flexibility and adaptability.

An Opportunity to Improve the Patient Experience. Patients deserve compassionate care environments that meet their needs. Seemingly innocuous aspects of hospitalization are compounded with sustained exposure over a prolonged hospitalization. This includes disruptions in the quality and duration of sleep,¹⁶ lack of attention to basic hygiene,¹⁷ and limited physical activity,¹⁸ all of which are contradictory to the foundational principles of patient-centered care. In addition, prolonged hospitalization places the patient into a forced state of social isolation and unable to participate meaningfully in society, which can cause significant distress to patients and their loved ones.¹⁹

An Opportunity to Improve the Health Care Team Well-Being. Clinicians experience moral distress, "when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action."²⁰ Clinical teams caring for patients with prolonged hospitalization may be asked to solve complex systemic issues largely outside their control, thereby contributing to moral distress. This is further exacerbated by the continued pressure to discharge patients with prolonged hospitalization and may lead to interpersonal conflicts across care teams.²¹

The provider experience is also impacted by staffing models that do not align with realistic time demands. Inpatient providers may carry a larger patient census because these patients are "easy" (ie, without acute medical issues). Although the medical acuity is indeed low, the barriers to hospital discharge are complex and require time and emotional investment. If an institution has a large cohort of patients with prolonged hospitalization, this often results in an overall higher inpatient census and subsequent resource constraint, which in turn further exacerbates these provider-facing issues.

These issues are shared across all disciplines, particularly social work and nursing. Importantly, these medically stable patients may actually require increased nursing care as a result of behavioral disturbances or physical care needs. In many cases, the associated complex care of these patients falls to these other team members, which can add additional strain and stresses.²²

An Opportunity to Lower Costs. Because inpatient care accounts for one-third of all health care spending,²³ identifying how to eliminate wasteful practices is a top priority. In a sample of 1441 patients experiencing prolonged hospitalization across 11 hospitals, costs were estimated to exceed \$60 million over a 3-month period,²⁴ and a single hospital in Washington state reported 11,000 patient-days and \$12 million in uncompensated care in 2018 for patients "stuck in the hospital."²⁵ These examples highlight a significant opportunity to improve the value of care delivery.

Recommendations to Improve Care for Patients Experiencing Prolonged Hospitalization While Medically Ready for Discharge

Health systems and providers can optimize processes and systems of care to better meet the needs of this unique and heterogeneous population (Table 1).

Identify, Track, and Escalate At-Risk Patients. Hospital systems should develop local solutions to prospectively identify patients who are experiencing or at risk for prolonged hospitalization. Many hospitals can take advantage of existing structures, such as the daily multidisciplinary discharge rounds. At our VA hospital, we established an innovative electronic planning tool to systematically identify patients at our daily huddle with barriers to discharge.²⁶

Table 1 Strategies to Provide High Value Care to Patients With Prolonged Hospitalization Across the Quadruple Aim

Provide higher quality care <i>Innovate based on local discharge barrier patterns</i> Avoid underuse and overuse of care Standardize robust provider handoffs Partner across the care continuum to overcome barriers to discharge	Improve care team well-being <i>Align care delivery structures</i> Establish groups or committees to assist care teams with navigating complex issues (eg, “complex discharge teams”) Ensure leadership engagement
Improve the patient experience <i>Adapt daily inpatient norms and routines</i> Protect sleep and ensure basic hygiene Promote regular physical activity and social engagement	Lower Costs <i>Identify, track, and escalate at-risk patients</i> Direct resources at commonly encountered barriers; overall costs may ultimately be reduced

Validated screening tools are available to identify patients needing intensive discharge planning services or at risk for prolonged hospitalization.²⁷⁻³⁰ Hospital systems may also use local historical data to identify common risk factors in their patient populations.³¹ Tracking over time can identify trends and opportunities for future improvement.

Dedicated teams and committees (eg, “complex discharge team”) can provide expertise in commonly encountered barriers such as limited patient finances, impaired decision-making capacity, homelessness, or disruptive behaviors.³² Our county hospital site has organized a comprehensive Care Management department, encompassing social workers and nurses with expertise in coordination of complex transitions of care, that works closely with a group of dedicated physician leaders to generate “in-the-moment” problem-solving and determine broader institutional priorities.

Adapt Daily Inpatient Norms and Routines. For medically stable patients with very prolonged hospitalizations (ie, months) while medically stable, we recommend care commensurate to the postacute care setting. This includes avoiding “routine” inpatient diagnostic testing (eg, daily labs) and monitoring (eg, frequent vital sign checks) and foregoing unnecessary treatments (eg, venous thromboembolism prophylaxis when ambulatory). Ongoing management of chronic diseases, such as diabetes and hypertension, aimed toward outpatient-defined goals is appropriate over the course of a prolonged hospitalization. Where able, long-term therapies should not be delayed. For example, a patient of ours with chronic hepatitis C infection and numerous barriers to hospital discharge was able to complete a previously recommended course of antiviral therapy during a prolonged inpatient stay.

Basic human needs, such as regular physical activity, socialization, normalized sleep-wake cycles, and adequate hygiene may be unmet during a prolonged hospitalization. We recommend collaborative efforts that include inpatient providers, nurses, and allied health professionals that aim to create an environment that more closely mimics life outside of the hospital.

Better Align Care Delivery Structures for Prolonged Hospitalization. Handoffs are a well-recognized vulnerability during a hospital stay; for an extended hospitalization

with numerous handoffs, the opportunity for important information to be lost is high. We must ensure that plans are consistently conveyed across multiple handoffs. For these patients, an explicit discussion of disposition plans, including past challenges and a debrief of recent conversations with family or caregivers will bolster the process. Specific ethical dilemmas should also be discussed, including the patient’s decisional capacity, preferences, and key contextual features (such as the social, legal, and economic aspects of care).³³

Particularly for hospitals that have a substantial cohort of patients with prolonged hospitalization, alternate care models and teams may be useful. At our county hospital, patients with prolonged hospitalization are geographically located with nurse and provider staffing that mimics subacute nursing facility-level care. At our VA hospital, we created a dedicated team consisting of an advance practice provider and social worker. Over a prolonged hospital stay, we believe that these patients and their caregivers will benefit from increased provider continuity.

Innovate Based on Local Discharge Barrier Patterns. With regular tracking of commonly encountered discharge barriers, health systems are equipped to design and test innovative solutions to overcome barriers. These innovations may require unique partnerships and resource investment.

Some health systems have designed solutions for guardianship administrative processing,³⁴ lack of caregiver,³⁵ intravenous antibiotic use in patients with substance abuse history,³⁶ homelessness,³⁷⁻⁴¹ and the need to provide durable medical equipment.⁴² Expanding the ability of subacute health care settings to overcome internal barriers is an important area for future collaboration. VA facilities have leveraged telehealth to provide subspecialty care, including mental health, geriatrics, and palliative care, to contracted nursing homes when this is a barrier to discharge.⁴³

There are ample opportunities to explore unique private and public partnership opportunities. In the state of Washington, patients who lack decisional capacity may wait more than 90 days to receive a state-appointed guardian, and others must wait weeks to “spend down” their assets before they are eligible for Medicaid resources. At our county hospital, a newly established medical-legal partnership facilitates legal advocacy on behalf of patients for issues such as these.

Future Needs

From a research perspective, we must better define this patient population. No standard nomenclature exists for patients deemed medically stable but who remain in the hospital: delayed discharge, prolonged hospitalization, inappropriate discharge, unnecessary hospitalization, and bed-blocker are a sample of commonly used terms.^{44,45} This confusion is further exacerbated by the tools used to systematically measure this population. The most widely studied, the Appropriateness Evaluation Protocol (AEP), was designed decades ago, is applied retrospectively, and has poor reproducibility and validity.^{46,47} There is an urgent need to engage in this basic and foundational research. Furthermore, research at its best not only seeks to identify and understand the gaps in knowledge but also to implement solutions. Because of the heterogeneity of causes for prolonged hospitalizations, it is imperative for local organizations to develop a “learning health care system” that systematically tests innovative solutions⁴⁸ and disseminates results.

Payers and policy makers should consider incentivizing solutions to common inpatient discharge barriers in the postacute care setting and work to reduce the significant administrative burdens placed on inpatients with barriers to hospital discharge. Impactful solutions to discharge barriers can be taken up by a broader-ranging, multidisciplinary coalition at local, state, or federal levels. As a promising example, the Washington State Health Care Authority recently convened a workgroup of skilled nursing facilities, adult family homes, assisted living facilities, hospitals, and managed health care systems to identify barriers and propose solutions to more timely transitions of care in complex patients.⁴⁹

CONCLUSIONS

Our patients experiencing prolonged hospitalization are stuck, and so are we as their providers. Current practices are ineffective and fraught with low value to patients, providers, and health systems. We have an opportunity to chart a path forward that can realize the aspirational goals of the health care Quadruple Aim. Doing so will require stakeholders across the spectrum working together to advocate, innovate, and improve care for these vulnerable patients.

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