

Barriers to Earlier Hospital Discharge: What Matters Most?

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*“Every system is perfectly designed to get the results it gets.”
—W. Edwards Deming inspired quote¹*

The timing of patient discharge represents a Gordian knot in hospital operations. Moving the time of discharge to earlier in the day is a complex challenge that defies replicable solutions and is often a barrier to optimal throughput and patient experience. In this issue of the *Journal of Hospital Medicine*, Zoucha et al. identify that discharge orders are frequently delayed due to physicians caring for other patients, heterogeneity in physician rounding styles, and other intrinsic factors such as census size, rounding style, and teaching versus nonteaching services.² Some of these factors and their negative impact are consistent with the effect of higher hospitalist workload (census) when increasing length of stay that was identified by Elliott et al.³ Others, such as rounding style and balancing teaching and education, are a part of many hospitalist service operations. Other intrinsic factors identified by the authors include awaiting consultant recommendations, care completion by social workers, procedures, labs, radiology, therapy services, and home oxygen.

The authors, however, recognize hospitalist behaviors and hospital operations as intrinsic factors. This is significant because intrinsic factors are theoretically under the control of the hospital's physicians, administration, and support services. They lend themselves to continuous improvement, re-engineering, and change management. They are a direct result of the people, processes, structure, and supporting information technology (IT).

The findings of this study contrast with the perceived dominance of extrinsic factors such as awaiting a ride, insurance authorization issues, or placement as the cause for discharge delays. Anecdotally, physicians and nurses in organizations often identify such extrinsic factors as causes of discharge delays before they call out intrinsic factors.

Frequently, the first reaction to managing complex intrinsic constraints is to add resources and complexity. Continuous improvement often reveals the culprit is poor design and waste found throughout the system. Zoucha et al. refer to LEAN

successes by others⁴ as an example of how to approach these complex intrinsic issues. Increasing early discharge with improvement in length of stay and reducing or maintaining the readmission rate has been achieved using the Institute for Healthcare Improvement Model for Improvement,⁵ the Red/Yellow/Green Discharge Tool within the electronic medical record,⁶ and a comprehensive management plan.⁷ These examples were often accomplished through improving the deployment of existing resources and reducing wasted activity. New predictive tools using supervised machine learning can help identify appropriate patients for discharge earlier in the day.⁸ This approach is built on the concepts of “efficiency and communication as components of quality healthcare delivery.”⁶

Perhaps a practical reductionist approach is to start with the end in mind, and ask the question “what matters most?” Three key times occur in each discharge and the authors capture two of these: the discharge order time and discharge time. Not captured is the time the patient and family are told they are being discharged. It is against this backdrop that we can look at four perspectives: caregiver, organization, community, and the patient and family. “What matters most?” depends on the perspective of each one of the parties involved.

From the perspective of the caregivers (physicians and residents), the conclusions support prioritizing rounding on patients ready to discharge, lowering team census, and restructuring teaching rounds to drive earlier discharges. But only 7% of encounters prioritized patients ready for discharge first. Seventy-six percent prioritized sickest patients first (33%), room-by-room (27%), and newest patients (16%).² The authors emphasize that such an approach needs to be balanced against the needs of the entire team census to ensure optimal care for all patients. Team and individual hospitalist census and processes must be optimized to improve the efficiency and effectiveness of the work. For teaching services, the goal is to accomplish effective teaching while maintaining or improving throughput. When addressing optimal census, Wachter concludes “the right census number will be the one in a given setting that maximizes patient outcomes (and in a teaching hospital, educational outcomes as well), efficiency, and the satisfaction of both patients and clinicians, and does so in an economical way.”⁹

Healthcare is delivered by teams. As we look at supporting and structuring our hospitalist teams' inpatient rounding we need to include the contributions of advanced practice professionals, pharmacists, nurses, care managers, social workers, and others. Achieving a team focus on a goal can be support-

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ed by number-by-time (n-by-T) target initiatives, which have been used successfully.^{10,11} Team-based solutions must be developed to address these complex issues and in recognition of the need to distribute this responsibility across the system, not just depending on physician changes to ensure optimal outcomes.

The perspectives of organization and community have the common goals of delivering healthcare value (outcomes, quality, safety, and sustainability) and ensuring access. To achieve these, it is important to separate the discharge curve (by shifting these patients' time of discharge to the left) from the arrival curve, which is more fixed. The organization and community benefit from reduced cost of care, improved value delivery, and better access to services. For hospitals and health systems facing high occupancy, this becomes important for access and serving the community, especially during the peak hours for admissions and discharges.

Against this backdrop is the most important perspective, which is that of the patients and families. What matters most to them? When does their clock start? For patients and families, we believe that their expectations begin when the physician or APP says, "you are doing well and we can get you home today." In the current study, the median time to discharge from the discharge order for four of the five hospitals was about three hours.² It is reasonable to assume the time interval is on the order of four to six hours or more for many patients. Is this acceptable? We have little data to answer this question directly, and while the Hospital Consumers Assessment of Healthcare Providers and Systems (HCAHPS) survey asks select questions regarding the effectiveness of discharge information, it is silent on matters of discharge timeliness and expectations. While on the administrative side we often use readmission rates as a proxy for a safe and "effective" discharge, in reality, we lack meaningful patient-reported outcome measures to assess our effectiveness, which is a necessity for performance improvement.

The opportunities for improvement suggested by this study include restructuring rounding to prioritize discharges, managing census per provider, and rethinking resident education to accommodate both education and service. The authors' approach includes identifying ways to improve the efficiency of the work through other team members (such as pharmacy techs for medication reconciliation) and balancing ancillary services support for all inpatient care and the outpatients they serve. Alternatively, tying incentives to the goal could be a convenient leadership response. The 2016 Society of Hospital Medicine State of Hospital Medicine Report notes that more than half (54%) of nonacademic hospitalist groups that treat adults have an incentive tied to early morning discharge orders or times. We believe that by keeping the patients and families at the center of this discussion, we are more likely to accomplish the goal of improved safety, efficiency, effectiveness, and patient experience.

The literature supports discharge delays as an international challenge with research on the topic in healthcare systems across the world.¹² This may be related to an aging population, improvements, and access to advanced healthcare, and

the challenges of occupancy and capacity mismatches in many healthcare systems worldwide. The authors have identified important intrinsic factors for these throughput and discharge delays. The results beg the question, are we willing to do the redesign and behavior change in our delivery of healthcare and healthcare education to achieve a more optimized system of care delivery?

A now-retired Cleveland Clinic performance improvement engineer frequently referenced W. Edwards Deming on "what makes the biggest difference in improving internal service quality?" He distilled this to two axioms based on Deming's work: reducing cycle time and reducing defects. Both must be accomplished from the customer's (patient's) perspective without tradeoffs between the two. Cycle time is the time to accomplish a completed process or action, such as patient discharge or LOS. Defects are all the waste or "impossible" challenges that contribute to the feeling of resignation that lead to people dismissing the possibility of improvement, stating "it is what it is." The challenge in the service of our patients and families, organizations, and communities is to move this dialog forward to "it is what we make it."¹³

When we tell the patient and family they are being discharged it should happen safely, efficiently, predictably, and with empathy. From the perspective of clinicians, it should be as easy as possible to consistently do the right thing and do the work to which they have dedicated themselves. For communities and organizations struggling with access, improving throughput is vital.

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