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unlocking hospital gridlock

What happens when patients need to be admitted, but all the hospital's beds are full? Gridlock.

AT A GLANCE

- > Hospitals should identify barriers to timely patient discharges.
- > Benchmarking hospital data with best-practice hospital experience can help in developing recommendations for improvement.
- > Solutions include developing revised discharge policies and procedures, establishing and communicating a discharge time, and setting a deadline for physicians to write orders for discharge and discharge-dependent tests.

Full occupancy means hospitals have achieved ideal operating and financial status, right? Not necessarily. Patient flow gridlock can result, with intrafacility transfers delayed, emergency departments and trauma centers on divert, direct physician admits and interfacility transfers denied, and surgeries cancelled. Patient flow gridlock has a negative impact on both patient flow, or throughput, and hospital economics.

One primary contributing factor to this critical state is delayed patient discharges. Delayed patient discharges mean new beds are not opening up to accommodate patient flow.

Delaying the discharge of patients who are medically ready and eager for discharge not only affects the care and satisfaction of existing patients, but also affects patient flow, which in turn affects the care of new patients. Such problems usually occur in four stages, progressively worsening at each stage until patient flow finally halts:

- 1.** Delayed patient discharges on medical/surgical floors (where patients are discharged to home or extended care facilities) can unnecessarily increase bed occupancy to full capacity on these floors.
- 2.** When medical/surgical floors are full, intensive care units become backed up as new patients are admitted to these units and existing patients cannot be transferred out due to full beds on the step-down, medical/surgical floors.
- 3.** At this point, the hospital operates at critical census, and the emergency department, trauma center, and post-anesthesia care unit become full as new patients fill these areas while existing patients cannot be transferred out to the intensive-care units and medical/surgical floors.
- 4.** Finally, new patients can no longer be admitted to the hospital as the emergency department and trauma center are forced to go on divert, direct physician admissions and interfacility and intrafacility transfers are denied, and operating room cases are canceled.

In addition to adversely affecting patient care, patient flow gridlock has an economic impact. Delayed discharges mean the hospital continues to incur care costs for patients who are medically ready to be discharged. Further, and more economically significant, the hospital suffers lost revenue resulting from the inability to admit new patients.

UUHC Discharge Initiative

The University of Utah Hospitals & Clinics places strong emphasis on improving patient flow and economics through timely patient discharge. UUHC and the University of Utah’s Medical Group define timely patient discharge as the earliest clinically indicated time that a patient is medically ready to be released. Although discharging patients before this time would be unconscionable, discharging patients after this time raises significant patient care, patient flow, and economic concerns.

To address these concerns, UUHC and UUMG entered into a joint partnership to facilitate timely patient discharges. They established a patient discharge steering committee composed of hospital and medical group administrators, key physician faculty, directors, nursing leadership, school of medicine house staff, UUHC employees, and an external operations consultant. The committee was co-chaired by UUMG’s medical director and UUHC’s senior nursing director (who later became the chief nursing officer) to ensure that essential physician and nursing components were directed by high-level leaders.

The initiative followed a four-stage operations improvement methodology: identify current barriers to timely discharges, benchmark best-practice hospitals, formulate improvement recommendations, and implement the recommendations.

Discharge Barriers

The patient discharge steering committee’s first task was to identify barriers to timely patient discharges by researching current discharge processes and practices at UUHC. Discharges

occurring by the hospital’s 11 a.m. discharge time were considered timely, whereas discharges taking place after this time were considered late. (It is good practice to discharge before 11 a.m. patients who are medically ready and prefer to be discharged before that time to minimize the surge of discharges and admissions that typically take place between noon and 6 p.m.)

Three hundred twenty-two late patient discharges were investigated to determine reasons for late discharges. After extracting late discharges due to medical necessity (patients who were medically

BARRIERS TO TIMELY PATIENT DISCHARGES		
Discharge Barrier	# of Occurrences	% of Occurrences
Transportation	73	27.9%
Late Discharge Order	35	13.4%
Patient Delay	21	8.0%
ECF Transportation	20	7.6%
ECF Coordination	13	5.0%
RN Delay	12	4.6%
DC Communication	12	4.6%
Attending Physician Delay	11	4.2%
Consult Delay	8	3.1%
Home Care Coordination	7	2.7%
Lab Tests	7	2.7%
Radiology Delay	6	2.3%
Rehab Transfer Delays	6	2.3%
DME Coordination	5	1.9%
Family Delay	4	1.5%
Pharmacy	3	1.1%
Messenger Service	3	1.1%
Clinic Appointment	2	0.8%
Home Oxygen Coordination	2	0.8%
Case Manager Delay	2	0.8%
Total	252	96.2%

Two hundred sixty-two late patient discharges not related to medical necessity were examined, and 30 barriers to timely discharges were identified. The top 20 barriers listed in the exhibit represent 252, or 96.2 percent, of the late discharges.

BENCHMARKING WITH BEST-PRACTICE HOSPITALS

Twenty-one best-practice hospitals were benchmarked to address barriers and root causes for late patient discharges and to identify solutions to the problem:

- > Abbot Northwestern Hospital, Minneapolis
- > Baptist Hospital of East Tennessee, Knoxville, Tenn.
- > Baptist Hospital of Miami, Miami
- > Brigham and Women's Hospital, Boston
- > Cedars Medical Center, Miami
- > Cedars-Sinai Medical Center, Los Angeles
- > Clear Lake Regional Medical Center, Webster, Texas
- > Cleveland Clinic, Cleveland
- > Good Shepherd Medical Center, Longview, Texas
- > Johns Hopkins, Baltimore
- > Massachusetts General Hospital, Boston
- > Mayo Clinic, Rochester, Minn.
- > New York Presbyterian Hospital, New York
- > Northwestern Memorial Hospital, Chicago
- > Providence Portland Medical Center, Portland, Ore.
- > Spring Branch Medical Center, Houston
- > UCLA Medical Center, Los Angeles
- > University of Michigan Health System, Ann Arbor, Mich.
- > University of Pennsylvania Medical Center, Philadelphia
- > University of Tennessee Memorial Hospital, Knoxville, Tenn.
- > Upstate University Hospital, Syracuse, N.Y.

required to remain in the hospital until later in the day, representing 60, or 18.6 percent, of the 322), the committee identified 30 discharge barriers.

During the data collection phase, physicians, nurses, case managers, social workers, discharge planners, therapists, patients, unit secretaries, messengers, and others involved in the discharge process were interviewed and shadowed to help the committee understand the root causes of the barriers to timely discharges. The interviews uncovered the following underlying issues:

- > Physicians, nurses, patients, discharge planning staff, ancillary departments, and others were unaware of the hospital's 11 a.m. discharge time.
- > Physicians were not notifying nurses, discharge planning staff, and patients of pending discharges so they could plan for the discharge.
- > Discharge tasks and responsibilities were not well defined and delineated among case managers, floor nurses, discharge planners, and social workers.
- > Discharging patients was not a top priority for attending physicians, house staff, floor nurses (who often felt understaffed), peripherally

inserted central catheter line nurses, physician consults, and staff in radiology, lab, physical therapy, inpatient rehabilitation, and messenger service areas.

- > Transportation delays commonly occurred despite best efforts by patients, family members, and case managers to prearrange transportation.
- > Manual and cumbersome processes such as writing discharge orders, preparing discharge paperwork, and filling discharge pharmacy scripts slowed processes down.
- > Medical patients were much more difficult to prepare for discharge than surgical patients. Surgeries are more predictable and straightforward to arrange in advance.

Best-Practice Benchmarking

In developing recommendations to address the barriers to and causes for late patient discharges, extensive benchmarking was conducted with senior management, physicians, floor nurses, case managers, directors, social workers, discharge planners, and others involved in the discharge process at 21 best-practice hospitals. Hospitals were selected from *U.S. News & World Report's* top hospitals, Solucient's top 100 hospitals, and hospitals referred on the basis of good patient flow practices. The steering committee reviewed the benchmarking findings to determine how UUHC could facilitate timely discharges.

Recommendations and Implementation

Best-practice benchmark solutions and many other recommendations developed by the steering committee were implemented throughout the discharge process. Recommendations that had the greatest potential for producing improvement follow in descending order of significance.

Discharge policy. An official 11 a.m. discharge policy and procedure was created and well communicated to UUHC, UUMG, and school of medicine staff. (Benchmarking findings indicated that the most common discharge time was 11 a.m., followed by 10 a.m.) The UUHC discharge policy states, "Every effort should be made to discharge patients at the earliest clinically indicated

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SENIOR FINANCIAL EXECUTIVES AND PATIENT FLOW

Improving patient throughput through timely discharges has a significant impact on the revenue stream. And because healthcare financial executives are concerned about revenue stream, especially in light of how managed care has evolved and capped payments, expediting discharges enhances the revenue stream as more patients are admitted to the hospital.

When the University of Utah Hospitals & Clinics initiated the patient flow and timely discharge project, UUHC was on Standard & Poor's watch list. UUHC's bond rating had been downgraded from A to A-. In response to our declining financial standing, we implemented several different projects, one of which was the patient flow initiative.

The downgrade occurred mainly because of deteriorating cash, defined as days cash on hand and days revenue in accounts receivable. A revenue cycle improvement was largely to credit for removing UUHC from the watch list and restoring its bond rating to an A. However, other projects, such as the patient flow and timely discharge project, were significant in our overall recovery as they set the format for a more efficient operation and certainly had a positive effect on our revenue cycle.

Of course, an institution's bond rating directly affects the cost of borrowing. At one point, we calculated that our rating downgrade cost us more than \$250,000 in annual borrowing costs. The cost is not simply in interest rate increases, but also in the type of debt we were able to acquire. We had to do a lot of creative

financing in those years to avoid increasing our long-term debt. Although we met that goal, the overall cost of money was much higher. It's not a good cycle to get into. It literally took us years to break it.

The finance department's role in improving patient throughput and timely discharges is through measurement and feedback—by monitoring the success or failure of the project. For instance, finance provided feedback such as discharge data to the floors and units that were improving their discharge processes, and calculated the impact the project made to UUHC's overall net revenue.

—Keri Anderson, CPA, former CFO,
University of Utah Hospitals & Clinics,
Salt Lake City

time. At a minimum, a planned discharge should occur by eleven o'clock in the morning unless there is a clinical reason (or other unforeseen reason) to delay the discharge.”

Discharge orders. An official discharge order policy was created, requiring physicians to write orders for discharge and discharge-dependent lab work, tests, and X-rays preferably the night before the day of discharge and at the latest by 8 a.m. on the day of discharge.

Discharge facilitator. A nursing discharge facilitator was hired to facilitate timely patient discharges by expediting orders; assisting with patient teaching and discharge paperwork; coordinating with physicians, radiology, lab, pharmacy, case managers, discharge coordinators, and floor nurses; and working with the bed placement nurses and the house supervisor to ensure timely admissions and good patient flow.

Physician communication. Physicians were required to communicate anticipated discharge dates and times as early as possible (preferably on day of admission) with routine patients, and

no later than 24 hours before discharge with more acute patients.

Other communication. The 11 a.m. discharge time was well communicated to patients at the time of admission by admitting representatives and case managers. Signs were placed in medical/surgical patient rooms stating, “To better serve our patients, discharge time is before 11 a.m. Please arrange transportation to arrive before 10:30 a.m.” Such messages were also placed in patient booklets and on UUHC's web site. Caregivers, when needed, were asked to be at home on the day of discharge.

Census alerts. An official “critical census” policy and plan was put in place to assist in prioritizing and making triage, transfer, and admission decisions when resources such as adult intensive care unit and general unit beds were scarce. Critical census bed alert pages were to be sent to hospital administration, medical directors, nursing administrators, nursing directors, nurse managers, case managers, discharge coordinators, and the discharge facilitator during high census to facilitate proper discharges at all levels and require

each to immediately make rounds to ensure that patients are expeditiously and appropriately moved and discharged.

Physician rounds. Physician rounding times were changed to accommodate early discharges, priority was given to timely consultations, and each physician's patients were grouped on the same unit when possible to increase efficiency during rounding and discharge planning.

Discharge waiting area. During critical census, stable patients with routine conditions who were waiting for rides were placed in the day room of

a medical/surgical floor. Nurses were floated, pulled, or called in to cover. (Benchmarking indicated that nurse-staffed discharge lounges did not work due to a lack of patient and nurse confidence in them. In fact, seven hospitals reported having closed their discharge lounges due to underutilization. In addition, two of the four hospitals that had discharge lounges were not happy with them.)

Order alerts. "Discharge dependent" was written on orders for lab work, tests, and X-rays required for discharge to ensure priority, patient binders received green stickers to provide a visual flag to

CASE MANAGEMENT: KEEPING A REIN ON LOS

The decision about a patient's length of stay should be clinically mandated, not set by a given diagnosis-related group. Case managers can facilitate that decision as they focus on the appropriate LOS based on the patient's unique condition or complicating factors. If a patient is staying longer than the given DRG calls for, and there is no reason for the extended stay, the case manager can remind the medical team that the patient is ready for discharge. Some flexibility is necessary, because the suggested LOS may be inappropriate for the patient, and demanding that the patient be discharged will offend the physicians. When a patient is admitted, the case manager should determine whether the patient will become a clinical or financial outlier and, if so, make transition plans regarding the next level of care.

The Readmission Dilemma

The appropriate level of care must be decided when the patient is in-house and according to Medicare rules. Appropriate levels of care include critical, acute, intermediate, and observation. If an inappropriate level of care is rendered, there is a risk of readmission. Medicare tracks readmissions within 30 days of discharge. Assigning the appropriate level of care prevents patients from being readmitted. Also, patients are billed appropriately when they receive the appropriate level of care.

Transition Planning

Case management is part of the medical team overseeing patient care. The case manager looks at

all patient data (e.g., medications, how the patient reacts to medications, lab work results, whether the patient is ambulated) and participates in decision making regarding discharging the patient to the safest, least restrictive, and most cost-effective care setting. This is called transition planning, or discharging the patient to the next transition of care. When all patient data are taken into account and the patient is transitioned to the safest, least restrictive, and most cost-effective care, the patient should not be readmitted. Sometimes, however, unforeseen complications lead to readmission.

The Role of Coding

DRG assurance is the goal of concurrent coding. In concurrent coding, an expert coder works with a case manager to look at each DRG and its standard LOS as well as lab values and whether the patient's severity of illness calls for a longer LOS. Alternatively, coding can be performed after discharge, when coders go through the closed chart and documentation and put information into the grouper software system to identify the appropriate DRG. Documenting patient billed charges correctly is critical in identifying the correct DRG. The case manager and medical coder need to balance the patient's needs with the rules and regulations for payment.

—Brigid McIntyre, RN, case management director,
University of Utah Hospitals & Clinics, Salt
Lake City

CHECK YOUR PERFORMANCE

Sound processes are essential to effective revenue cycle management. Use HFMA's *Self-Assessment Tool: Registration, Financial Counseling, and Customer Service* to ensure that you have key processes covered. Then, check your performance measures against the better-practice target levels in the performance indicator section. To view the tool, visit www.hfma.org/resource/Benchmarking.htm and scroll down to the title.

unit secretaries that discharge orders had been written, and the pharmacy process for filling discharge prescriptions was streamlined.

Order entry. Computerized provider order entry is being installed so orders can be submitted immediately, results can be sent back more rapidly, and discharge orders can be prioritized.

Discharge monitoring. An intranet site was developed to monitor discharge times (by physician, unit, service, and the hospital overall), census, and occupancy rates to facilitate patient flow and hold staff accountable to the 11 a.m. discharge time. Appropriate discharge goals were set and tracked: discharge 30 percent of discharging patients by 11 a.m., and attain an average discharge time of 1 p.m. (Data indicated that approximately 20 percent of discharging patients are detained past 11 a.m. due to medical reasons.)

Staff notification. New bed boards were created showing pending discharge times and dates to provide advance notification to case managers, floor nurses, and discharge planners so they can coordinate and prepare for discharge. Anticipated discharge time also can be entered and viewed in electronic health record systems when patient privacy is an issue.

Paperwork consolidation. Admission, discharge, and transfer paperwork was consolidated onto one form that went directly to the patient with discharge orders (e.g., home health service, pharmacy scripts, follow-up appointment) to make discharging patients more efficient.

Discharge coordination. Social work was removed from the discharge planning team and used on a referral basis for psychosocial issues. Case management roles were expanded to include discharge planning and coordination oversight in the full continuum of care, and discharge

coordinators were assigned by floor rather than by service to provide a single point of contact for physicians and nurses.

Staff notification of completed discharges. Unit secretaries were required to input discharge times in the admission, discharge, transfer system within a half hour of discharge to notify messenger service, bed management, and housekeeping of empty beds and to ensure accurate discharge times for reporting. Falsifying discharge information would be treated the same as falsifying information in the medical chart.

Results

After the recommendations were implemented, average patient discharge time went from 5:24 p.m. to 1:16 p.m. As a result, patient care and patient flow significantly improved as intrafacility transfers became increasingly efficient and more new patients were able to be admitted to the hospital. In fact, after a previous 3.9 percent decline in the number of annual inpatient admissions, total admissions increased the following year by 6.5 percent and by 6.1 percent the year after. The average daily census immediately increased by nine patients a day, while the acuity case mix index remained the same at 1.554.

In addition, trauma-divert times significantly decreased, and the average length of stay quickly dropped from 6.3 to 6.0 days. Shortly after the recommendations were implemented, the ALOS of 12 of the 16 top opportunity diagnosis-related groups declined by 194 days in one month. UUHC's finance department conservatively calculated that an additional \$5 million was generated in net revenue from the increased admissions. ●

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