Healthcare organizations across the nation are facing increased pressure to deliver higher-quality care at lower costs. These rising expectations are pushing hospital administrators to look for innovative approaches to providing care. Some hospitals have found success in responding to these rising expectations by focusing on capacity optimization.

We asked healthcare experts from multiple healthcare institutions, including UPMC, Dartmouth-Hitchcock, and Memorial Sloan-Kettering, for their insights into how hospitals can better utilize the resources within their system to provide patient care. These experts—who include former Case Managers of the Year, IHI Seminar leaders, and clinicians with decades of experience—shared some of the insights that have helped their institutions provide better patient care, even with limited resources.

The six points shared below will help you manage your hospital’s capacity so your capacity does not manage you!

1. Emphasize Accurate Patient Placement

Getting a patient into the hospital is important; placing a patient at the correct level of care is critical. Indeed, the first fundamental to reduce LOS (Length of Stay) and hit on-time discharge is accurate patient placement.

Discussing patient placement as a best practice, Deb Kaczynski, MS, Senior Administrative Director at University of Pittsburgh Medical Center (UPMC) and IHI Patient Flow Faculty, said: “Whether your hospital is at 75% capacity or 110% capacity, patients should always be at the right LEVEL of care.” Placing patients off-service increases LOS and heightens the likelihood of adverse patient outcomes.

“In the healthcare world, we are all familiar with the 5 Rights of giving medications,” says Kari Allen, RN, CCRN, a patient flow consultant with Central Logic. “In my past life as a patient flow coordinator at a large New England tertiary-care hospital, my team adopted the 5 Rights of Patient
5 Rights of Patient Placement

Right Level of Care
Right Service
Right Nursing Unit
Right Bed
Right Time

Placement’ as a guiding principle: Right Level of Care; Right Service; Right Nursing Unit; Right Bed; Right Time. This model was key in helping reduce our facility’s LOS.”

No matter your model, committing to placing patients at the right level of care decreases LOS, increases on-time discharge, and optimizes the use of resources. Hospitals that are serious about optimizing capacity focus on placing patients in the right bed, at the right level of care, the first time.

2. Initiate Daily Multidisciplinary Rounding and Daily Bed Meetings

To reduce LOS and hit on-time discharge, clinicians, staff, administrators, the patient, and the patient’s family must all be on the same page throughout the procedural and healing process.

“To facilitate cross-silo communication, our team utilizes multidisciplinary rounding,” says Kathy Pecenka-Johnson, BSN, MN, Access Center Director at Children’s Hospital of Los Angeles (CHLA). These efforts have streamlined coordination across services at CHLA, leading to shorter LOS.

To meet on-time discharge, “multidisciplinary rounds are a must,” echoes Catherine Morris, RN, MS, CCM, CMAC, Director of Case Management at St. Joseph’s Hospital (2009, CMSA Case Manager of the Year). “Even on weekends (when rounding may include fewer people), multidisciplinary rounding should occur daily. During the rounds the case manager highlights to the team the expected discharge date. For example: ‘This is day three of an expected five day stay. Is the patient on track?’ This way ancillary tasks—such as teaching, patient evaluations, payer authorizations, post-acute service setup, rides home, etc.—can be completed on time.”

In addition to multidisciplinary rounding, hospitals optimize capacity through daily multidisciplinary bed meetings.

As faculty for IHI’s Patient Flow Seminar, Kaczynski teaches about effective bed meetings. She notes: “Unit-level bed huddles should include discussion regarding patients admitted in the last 12 hours, patients on the ‘R’ sheet to leave today, patients for potential discharge (DC) tomorrow, and patients not identified for DC in the next 48 hours. Discussing each of these areas is vital to truly understand and predict your capacity and manage the LOS of your patients.”

Following the huddles, leaders convene at a multidisciplinary
“Even on weekends (when rounding may include fewer people), multidisciplinary rounding should occur daily.”

meeting to discuss current capacity versus current demands, says Kaczynski. Attendees at this hospital-wide bed meeting include Case Management, EVS, Cardiology, Radiology, Infection Control, Cath Lab, all Nursing Units, ED, Transport, PACU and any other relevant parties at your institution. Meetings are brief, refrain from discussion on staffing, and should be mandatory.

“More often than not, there will be a mismatch between available capacity and demand for beds,” says Kaczynski. “When demand exceeds capacity, the bed meetings provide an opportunity to implement hospital-wide plans to increase capacity or decrease demand on burdened units.”

By implementing bed huddles, multidisciplinary bed meetings, and multidisciplinary rounding, hospital teams are able to work as a cohesive whole. Acting together, the appropriate tests can be ordered and procedures done in the most timely fashion to ensure that discharge plans are followed and capacity is optimized.

3. Discharge Patients As Soon As Possible (At Any Time During the Day)

“If a patient doesn’t need to remain in the hospital, then he or she should be discharged, even if census is 70%,” said Laura Ostrowsky, RN, CCM, MUP, Director of Case Management at Memorial Sloan-Kettering Cancer Center (2012, CMSA Case Manager of the Year). “Hospital beds are limited resources and should be used appropriately. That is the basis of capacity management.”

From the moment patients enters the hospital, the entire healthcare team should be focused on helping them reach discharge as quickly as is clinically feasible. Timely discharge is in the best interest of patients and is also the best financial choice for hospitals. However, sometimes staff hold patients longer than needed because they are following traditional models that say discharges occur early in the day.

“Hospitals are 24-7 operations,” said Ostrowsky. “Limiting yourself to morning discharge is not focusing on timely discharge, nor is it in the best interest of the hospital or the patient.”

Ostrowsky continues, “While it is advisable to discharge the bulk of your patients early in the day, it is important to understand that a discharge late in the afternoon or evening can actually be an ‘early discharge.’ Instead of waiting and sending the patient home the next morning, you are freeing up the bed one day early.”

Kaczynski supports this notion, saying: “Hospitals should ensure that patients are discharged on the correct day, regardless of time. An ‘early’ discharge on Tuesday morning that was scheduled for Monday evening is not a success story.”

“Limiting yourself to morning discharge is not focusing on timely discharge, nor is it in the best interest of the hospital or the patient.”
To coordinate all the steps entailed in the discharge process, minimize last-minute surprises, and keep all team members on track, Dartmouth-Hitchcock has created designated discharge practitioners, says Michelle Buck, RN, Patient Flow Program Coordinator. “These staffers have been critical in helping us achieving on-time discharge.”

4. Smooth Your Patient Census

Another tactic to reduce LOS is to look at peak census patterns by time of day and day of week. “Virtually every hospital has fewer admissions on weekends,” say Ostrowsky. “A few years ago we started scheduling elective surgeries on weekends to help flatten out our census curve.” This shifted some of the weekday volume to the weekends and helped Memorial Sloan-Kettering reduce congestion, freeing up resources and thereby reducing LOS.

Comparing the variability of elective admissions and ED admissions, more often than not, “Mother Nature is more predictable than our ways of managing patient flow,” says Eugene Litvak, Ph.D., IHO President and IOM Committee Member. In other words, elective admission patterns are typically more unpredictable than ED admission patterns. Litvak notes that this goes against common sense. However, research validates his statement.

The mismanagement of elective admissions causes artificial peaks in census to occur. Citing research from Johns’ Hopkins, Litvak notes that these admission peaks drastically increase the likelihood of costly patient readmissions. To enhance capacity optimization, Litvak suggests that hospitals evaluate when their elective admissions are being scheduled, just as Memorial Sloan-Kettering did. By smoothing peaks and valleys in admissions, hospitals can optimize capacity.

5. Communicate! (With Staff and Patients)

When asked what advice she would give to hospitals seeking to optimize capacity, CHLA’s Pecenka-Johnson says: “Communicate! And once you’ve communicated, communicate some more. Staff need to understand why every change is important.”

In addition to staff, communication must also include the administrative team, continues Pencenka-Johnson. “Change cannot be maintained without the support and buy-in of staff at all levels.”

Case management is another important resource hospitals use to streamline communications and reduce LOS, says Morris. “Case managers coordinate care during stay. They make sure that test results are available to physicians, follow up on patient evaluations and specialist consults, and arrange for post-acute needs early in the hospital stay.” The case management team facilitates communication across silos to ensure that the patient progresses as quickly as possible through care milestones.
In addition, hospitals must maintain open communication channels with patients. “Managing patient expectations is key to reducing LOS,” says Ostrowsky. “Hospitals need to let patients know in advance when they will be going home so they can make arrangements. But be honest. Don’t make promises you can’t keep.”

In delivering these details, Ostrowsky warns, “It is critical to present a consistent message across disciplines. When patients receive mixed messages, they pick what they want to hear.”

6. Measure the Correct Metrics; Then Distribute Them

As hospitals work to optimize capacity data becomes critical. “Knowing and consistently tracking indicators impacting patient throughput is critical in implementing effective and sustained change,” says Pecenka-Johnson. “Inefficiencies in bed cleaning times, patient discharge delays and throughput inefficiency often result in the use of costly additional resources and ineffective capacity optimization. Indicators such as 30 day readmission rates, observation volumes, case mix index and LOS by diagnostic group should be evaluated against the impact on the organization’s overall capacity management.”

Buck adds, “Evaluation techniques vary hospital to hospital, but at Dartmouth we have found that you need to know the average daily admits, both scheduled and unplanned, in order to appropriately manage capacity. “Also you should have data on the number of boarders and number of diverted and denied patients.”

In addition to some of the previously mentioned metrics, St. Joseph’s looks at the number of hours admitted patients are waiting in the ED, bed-cleaning turnaround time, and avoidable days.

“I can’t overemphasize the importance of data,” says Morris. However, in order for your capacity optimization initiatives to make an impact, “you must present the metrics for review and insist on sufficient discussion to ensure that hospital administrators understand the implications of the data.”

C-level buy-in is a make-or-break criteria for capacity optimization projects. Metrics are the best way to prove the impact of your work and help you get C-level approval for subsequent projects.

The role of technology in metric gathering and analysis is an industry best practice, says Darin...
Vercillo, MD, CMO at Central Logic. “Whereas traditional bed management software restricted hospitals to certain workflows and reports, the newest wave of capacity-optimization tools allow clinicians, staff and administrators to customize processes to meet their specific needs.”

Today’s software coordinates care and visibility across the hospital team, integrating communication and reporting from transport, to EVS, to nursing unit directors, to the C-level.

“With capacity optimization technology hospital leaders can provide the metrics, visibility, and functionality that administrators should expect,” adds Dr. Vercillo.

**Summary: Six Keys to Optimize Capacity**

Capacity optimization is an ongoing endeavor, and improvement efforts will be unique to every hospital. However, in your efforts, remember these six keys to optimizing capacity through initiatives that reduce LOS and increase on-time discharge:

1. Emphasize accurate patient placement
2. Initiate daily multi disciplinary rounding and daily bed huddles
3. Discharge patients as soon as possible
4. Smooth your patient census
5. Communicate with staff and patients
6. Measure and distribute the correct metrics

“Capacity optimization is everyone’s responsibility,” says Morris. “There is no quick fix; each issue needs to be broken down and addressed. Work on throughput is continuous, so don’t give up. If you stop addressing it, things will backslide.”