IHI’s Hospital Flow Professional Development Program

Pat Rutherford
VP, Institute for Healthcare Improvement

November 4-8, 2019
Boston, MA
Have Questions?

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1. Click chat bubble if panel does not appear automatically
2. Type your question here and send to everyone

This is the chat panel
Why Hospital Flow Is Key to Patient Safety

http://www.ihi.org/communities/blogs/why-hospital-flow-is-key-to-patient-safety
ED Boarding and Mortality

ICU Transfer Delay and Hospital Mortality

- Observational cohort study on medical-surgical wards at 5 hospitals to investigate the impact of delayed ICU transfer.
- A total of 3789 patients met the critical eCART threshold before ICU transfer, and the median time to ICU transfer was 5.4 hours.
  - Delayed transfer (>6 hours) occurred in 46% of patients (n = 1734) and was associated with increased mortality compared to patients transferred early (33.2% vs 24.5%, P < 0.001).
  - In patients who survived to discharge, delayed transfer was associated with longer hospital length of stay (median 13 vs 11 days, P < 0.001).
- Delayed ICU transfer is associated with increased hospital length of stay and mortality. Use of an evidence-based early warning score, such as eCART, could lead to timely ICU transfer and reduced preventable death.

The Problem and the Opportunity

Addressing vexing issues of patient flow in hospitals is essential to ensure safe, high quality, patient-centered care. Failure to provide the “right care, in the right place, at the right time” puts patients at risk for sub-optimal care.

Poorly managed hospital flow also adds to the already taxing burden on clinicians and staff and diverts their attention from clinical care. Improving hospital flow is critical lever for increasing value -- for patients, clinicians and health care systems.
What would success in achieving hospital-wide flow look like at your hospital or health system?
Median Occupancy Rates by Cohort

Source: Massachusetts Hospital Profiles, Data Through Fiscal Years 2012-2015, Center for Health Information and Analysis
Average Occupancy Rates (at hospital or unit level) and the Day-to-Day Realities of Managing Patient Flow
System-wide View of Patient Flow of Helps to Avoid Isolated Perspectives and Flow Projects

- Off-Service Patients
- No Telemetry Beds
- Discharge Delays
- ED Crowding and “Boarders”
- Census Variability & Surges
Wait Times in the Emergency Department - It’s a System Problem

Phase 1
Community
- Patient self-managing using Family Physician/Nurse Practitioner/Primary Health Care Team/community support/prevention
- Acute episode/health issue
- EMS Referral

Phase 2
Emergency Department
- Assessment by ED team/Admit to care
- Treat/Stabilize/Stop Bleeding
- Diagnostics/Physician Consult (stay with Inpatient Physician)

Phase 3
Hospital
- Patient care plan
- Admit to care
- Discharge

Phase 4
Community
- Family Physician/Nurse Practitioner/Home care/Primary care health team/other community supports (e.g., rehab, supportive housing)

Fragmented Information Systems
Inappropriate Volumes → Long Wait Times → Over Capacity → Lack of Services

GRIDLOCK
Six Ways Not to Improve Patient Flow: A Qualitative Study

- Narrowly focused initiatives reflected a decentralized system and the lack of a coherent system-level strategy for patient flow.
- Well-established principles exist for improving timeliness and efficiency -- assess capacity and demand, ascertain and address the causes of variation and streamline care processes.
- Improving efficiencies in isolated areas will not lead to improved hospital-wide patient flow (need to focus on the greatest system constraint and scrutinize how different subsystems throughout the hospital impact each other).
- Move beyond a proliferation of piecemeal initiatives to a coherent strategy of identifying the greatest constraints, and after the greatest constraint has been addressed move to the next constraint in the system.
- Without a system perspective to inform improvement efforts, the most promising initiatives may become just another dismal entry in ‘The How-Not-To Guide’ to patient flow.

Kreindler SA  Six ways not to improve patient flow: a qualitative study
Success is Possible!

• Based on AHA data, overall nationwide hospital inpatient occupancy was 67.8% (AHA 1991–2011); range was from 33.6% to 74%)

• Once managed efficiently, US hospitals, on average, could achieve an 80–90 percent bed occupancy rate—without adding beds at capital costs of approximately $1 million per bed.

• As a result of “smoothing” the scheduling of elective surgeries, improving discharge efficiencies, use of advanced data analytics and other interventions to improve flow at CCHMC, the hospital’s quality of care improved even as the occupancy rate grew from 76 percent to 91 percent. Hospital officials also report improved overall safety for patients and reduction in stress on the doctors and nurses who treat them.

Guiding the Flock: Three Simple Rules to Improve Hospital-wide Patient Flow

Lloyd Provost and Pat Rutherford, IHI blog post Aug. 7, 2018
Simple Rules to Improve Hospital-wide Patient Flow

We propose the adoption of these three simple rules for governing complex systems for achieving hospital-wide patient flow.

Right Care, Right Place: Patients are placed on the appropriate clinical unit alongside the clinical team with disease- or condition-specific expertise.

Right Time: There should be no delay greater than two hours in patient progression from one hospital unit or clinical area to another, based on clinical readiness criteria. For example, patients should be transferred within two hours from the ED to an inpatient unit, within one hour from a PACU to a surgical unit, and discharge to home or community care within two hours.

Operational Capacity: Teams should ensure each unit or clinical area has operational capacity at the beginning of each day. For example, a unit should have one or two beds available and staffed at 7:00 AM based on patient demand patterns.
Simple Rules to Improve Hospital-wide Patient Flow

These simple rules are not intended for judgement or accountability. Rather, they can **form the basis for a hospital-wide flow philosophy that unites all staff and departments to a common purpose**. They can provide the basis for daily flow huddles to manage safe and timely patient progression throughout the hospital.

The hospital flow oversight team should create a **hospital-wide learning system to understand failure** to achieve these simple rules and develop approaches to **mitigate flow failures and flow delays**.

The challenge of complexity in health care, British Medical Journal, September 2001
Guiding the Flock: Three Simple Rules to Improve Hospital-wide Patient Flow. Lloyd Provost and Pat Rutherford, IHI blog post Aug. 6, 2018
Simple Rules to Improve Hospital-wide Patient Flow
IHI’s Framework and Strategies for Achieving Hospital-wide Patient Flow
• Decrease overutilization of hospital services
• Optimize patient placement to insure the right care, in the right place, at the right time
• Increase clinician and staff satisfaction
• Demonstrate a ROI for the systems moving to value-based care strategies

Strategies to Achieve System-Wide Hospital Flow

Outcomes

Strategies

Primary Drivers

- Make Delivering the Right Care, at the Right Time and in the Right Place a Strategic Priority
- Align Medical Staff and Hospital Executives to Achieve Improved Flow
- Adopt Value-based Care Models to Improve Patient Flow
- Demonstrate that Improved Flow has a Positive Return on Investment
- Connect the Work of Departments and Units to Hospital-Wide Flow Strategies

- Shaping or Reducing the Demand
- Matching Capacity and Demand
- Redesigning the System
- Provide Oversight of System-Level Performance by Executive Leaders
- Utilize of Hospital-wide Metrics to Guide Learning and Improvement to Achieve Results
- Create a System for Achieving Breakthrough Performance Improvement
- Build Quality Improvement Capability at All Levels of the Organization

Will

Ideas

Execution
Driver Diagram: Ideas to Improve Hospital-wide Patient Flow

**Outcomes**

- Decrease overutilization of hospital services
- Optimize patient placement to ensure the right care, in the right place, at the right time
- Increase clinician and staff satisfaction
- Demonstrate a ROI for health systems moving toward value-based care strategies

**Primary Drivers**

- S1 Provide end-of-life care (what care, and where) in accordance with patients’ wishes
- S2 Decrease demand for medical-surgical beds by preventing avoidable readmissions
- S3 Reduce unnecessary bed days after patients meet clinical-readiness criteria for discharge or transfer to community settings of care
- S4 Decrease ED visits and acute care hospital admissions
- S5 Relocate low-acuity care in EDs to primary care and community-based settings
- S6 Decrease demand for hospital beds by reducing preventable harm
- S7 Decrease artificial variation in surgical scheduling
- S8. Utilize a data-driven operational management system for hospital-wide patient flow
- S9. Utilize real-time demand and capacity management processes
- S10. Improve efficiencies, length of stay, and throughput in key units and departments where clinical care is delivered
- S11. Improve the efficiency and coordination of hospital discharge processes
- S12. Reduce length of stay for patients with complex needs

**Secondary Drivers**

- C1.1 Reliably identify end-of-life care wishes and proactively create and execute advanced illness care plans
- C1.2 Develop hospital-based and community-based palliative care programs
- C2 Improve transitions and post-hospital care to reduce readmissions for high-risk populations
- C3.1 Improve efficiencies in hospital care and planning for transitions
- C3.2 Ensure capacity and capability of needed services in the community
- C3.3 Develop partnerships with payers to ensure payment for needed services
- C4.1 Use enhanced community-based coordination of services for patient populations with complex medical and social needs
- C4.2 Provide home-based primary care for high-risk populations
- C5.1 Increase capacity in primary care practices to provide timely access to a care team
- C5.2 Develop partnerships with Urgent Care and Retail Clinics
- C5.3 Enroll patients in community-based mental health services
- C5.4 Have paramedics & emergency medical technicians triage & treat patients at home
- C6 Decrease complications and harm, and subsequent increases in hospital lengths of stay, resulting from errors and hospital-acquired conditions
- C7 Redesign elective surgical schedules to create a predictable flow of patients to downstream ICUs and inpatient units
- C8.1 Forecast seasonal variations and changes in demand patterns to proactively plan for predicted volume
- C8.2 Assess the number of beds and staffing needed for each service to make plans to accommodate patient volume for each service
- C9.1 Use hospital-wide patient flow planning huddles and real-time demand and capacity problem solving
- C9.2 Use flexible staffing models for clinicians and staff to meet daily and hourly variations in patient volume in each unit
- C9.3 Use early recognition of high census and “surge” protocols to expedite plans for accommodating unplanned increases in patient volume
- C10.1 Increase OR throughput by improving efficiency
- C10.2 Improve efficiency in the ED to decrease length of stay (LOS)
- C10.3 Improve efficiency in the ICUs to decrease LOS
- C10.4 Improve efficiency in medical-surgical units to decrease LOS
- C11.1 Use proactive discharge planning focused on patients’ “medical-readiness criteria” for discharge
- C12.1 Use case management and care management for patient populations with complex needs
- C12.2 Use advance planning and cooperative agreements for transfers to rehabilitation facilities, skilled nursing facilities, nursing homes, and mental health treatment facilities

**Specific Change Ideas**

- C8.1 Forecast seasonal variations and changes in demand patterns to proactively plan for predicted volume
- C8.2 Assess the number of beds and staffing needed for each service to make plans to accommodate patient volume for each service
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Shape or Reduce Demand
Changing the Cultural Norm

A national campaign encouraging everyone to have a conversation about their wishes for end-of-life care

Collaboration to ensure health care systems are ready to receive and honor wishes for end of life care

Harvard Business Review
The New York Times
World News with Diane Sawyer
Oprah Magazine
### Respecting Choices controls the per capita cost of care

<table>
<thead>
<tr>
<th>Table Title</th>
<th>Per capita cost of care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>La Crosse Wisconsin</td>
</tr>
<tr>
<td>Reduces unwanted hospitalizations—percent hospitalized at least once during last six months of life(^{29})</td>
<td>59.5% (below 10th percentile)</td>
</tr>
<tr>
<td>Reduces costs of care in last two years of life due to elimination of unwanted treatment(^{29})</td>
<td>$48,771</td>
</tr>
<tr>
<td>Decreases hospital care intensity in last two years of life(^{29})</td>
<td>0.49 (half the national average)</td>
</tr>
<tr>
<td>Reduces inpatient days in last two years of life(^{29})</td>
<td>10.0 days (below 10th percentile)</td>
</tr>
<tr>
<td>Reduces hospital deaths(^{29})</td>
<td>20.4%</td>
</tr>
<tr>
<td>Reduces percent of decedents seeing 10 or more different physicians during last six months of life(^{29})</td>
<td>22.7% (well below 10th percentile)</td>
</tr>
<tr>
<td>Reduces percent of decedents spending seven or more days in ICU/CCU during last six months of life(^{29})</td>
<td>3.8% (well below 10th percentile)</td>
</tr>
<tr>
<td>Reduces percent of decedents admitted to ICU/CCU in which death occurred(^{29})</td>
<td>9.5% (well below 10th percentile)</td>
</tr>
</tbody>
</table>

**Reduces healthcare costs:** for each dollar spent on ACP the cost of healthcare is reduced by $2. The ROI is $1 for every dollar spent.\(^{12,30}\)
Patient and Family Engagement

Cross-Continuum Team Collaboration

Health Information Exchange and Shared Care Plans
30 Day Readmissions: Primary & Secondary Heart Failure 65+

Annual Averages
2009 = 24%
2010 = 19%
2011 = 13%
2012 = 12%

Goal Line:
Unnecessary Bed Days

• HOSPITAL CARE: Delays in hospital care and transitions out of the hospital
  ➢ Consults, results of tests, imaging and procedures
  ➢ Comprehensive assessments for post-acute care needs, interdisciplinary and patient/family planning, decision-making and/or transitions out of hospital to community-based care

• COMMUNITY-BASED CARE AND SERVICES: Lack of availability for needed services (lack of capacity or capability in the community settings of care)
  ➢ Palliative Care and Hospice (hospital, community or home)
  ➢ Community Hospital, LTACs, Skilled Nursing Facilities, Rehabilitation Facilities and Long-Term Care
  ➢ Psychiatric and Mental Health services and/or facilities
  ➢ Home Health Care services
  ➢ Community services (housing, meals, transportation, etc.)

• POLICY AND PAYMENT: Lack of eligibility and/or payment for needed services
“Current activity-based funding policies’ singular focus on hospitals, without commensurate changes in post-acute care, jeopardizes the viability of these policies by exacerbating pressures on bottlenecks in the system. We have discussed three policy options – building more, integrated care and financial incentives – that offer potential solutions. These are not intended to be presented as either/or options; given the complexity of the problem, a solution may well involve a combination of all three.

These three options address how policy makers might alleviate current ALC. However, this paper does not address the complementary issue of reducing “future” ALC (such as by expanding primary care, improving the continuity of care and reducing avoidable hospital admissions), a topic that requires further linkages between community and secondary care providers.”
Utilization of emergency rooms, hospitals and drugs tends to be lower than average:

- With Medicaid, demonstrated 39% fewer admits/1000 on hospital (medical) admissions and 37% fewer Emergency Room visits/1000 as compared with the health plan's network.

- With Medicare Advantage, demonstrated 12% fewer Emergency Room visits/1000 and 5% fewer SNF admits/1000 as compared with the plan's network.

- For a commercial PPO product, 30-day readmission rate that is half of the plan's network rate, and 25% fewer Emergency Room visits/1000.

- For a commercial HMO, demonstrated 8% fewer inpatient admits/1000 and 9.5% less Rx scripts/1000.
Reducing Non-Urgent Emergency ED Services

- Extend hours in Primary Care
- Independence at Home (home-based primary care)
- Use of Telemedicine in Emergency Departments
- Urgent Care Centers (many now part of health care systems)
- Retail Clinics
- Paramedics and Emergency Medical Services managing non-emergency calls*
- Community Health Workers connecting frequent ED users with community-based services*
- Coordinated, Intensive Medical, Social, and Behavioral Health Services*

Clostridium difficile Infection Rates in Hospitals

Many hospitals acknowledge that *C. diff* infections are a widespread problem, especially as the CDC estimates that 94 percent of cases occur in hospitals. *C. diff* infections increase patient length of stay by more than 55 percent and may increase the cost of their care by 40 percent or more. More worrying, 500,000 patients are infected annually and 29,000 patients die each year from the drug-resistant superbug, so researchers are focused on finding potential treatments.

Two solutions for hospitals to cut down on the infection risk: make sure staff follow hand-hygiene protocols and establish antibiotic stewardship programs.
“Level-loading” Electively-Scheduled Surgical Cases

• By smoothing the inherent peaks-and-valleys of patient flow, and eliminating the artificial variability, that unnecessarily impair patient flow, hospitals can improve patient safety and quality while simultaneously reducing hospital waste and cost.

• CCHMC: scheduling of “itineraries” for patients having surgical procedures
  ➢ Redesign elective surgical schedules to create a predictable flow of patients to downstream ICUs and inpatient units.
  ➢ Simultaneously schedule OR suite rooms and ICU beds (based on predicted length of stay).

Match Capacity and Demand
### Baseline Scenario

**Question:** What will our capacity look like at the end of FY2016?

**Answer:**
- Budgeted growth of 883 additional discharges at BIDMC in FY16
- Expect 370 incremental discharges (in first year of MetroWest Medical Center deal)
  - 6.4 day average LOS expected
- Closing 14 Obs beds at BIDMC
- Opening 43 new Med/Surg beds at BIDMC by June 2016 (net addition of 29 beds)

### Scenario Planning

#### Observe Current State

<table>
<thead>
<tr>
<th>Clinical Area</th>
<th>Beds</th>
<th>Usable Beds</th>
<th>Average Occupancy Rate</th>
<th>% of Time in Red Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Care</td>
<td>77</td>
<td>77</td>
<td>82.1%</td>
<td>65.3%</td>
</tr>
<tr>
<td>Med/Surg</td>
<td>441</td>
<td>417</td>
<td>92.8%</td>
<td>80.4%</td>
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<tr>
<td>Observation</td>
<td>32</td>
<td>32</td>
<td>39.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Med/Surg &amp; Obs</td>
<td>473</td>
<td>449</td>
<td>89.8%</td>
<td>87.3%</td>
</tr>
</tbody>
</table>

#### Describe a Future Scenario

1. **Additional expected discharges per year:** 370
2. **Avg LOS (days) of additional discharges:** [current = 4.1] 6.4
3. **Critical Care beds added (+) or removed (-):** 0
4. **Med/Surg beds added (+) or removed (-):** 43
5. **Observation beds added (+) or removed (-):** -14
6. **Budgeted increase (+) or decrease (-) in discharges:** 626
7. **Organic % growth (+) or decline (-) in discharges:** 0.4%

#### Understand Future State

<table>
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<tr>
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<tbody>
<tr>
<td>Critical Care</td>
<td>77</td>
<td>77</td>
<td>84.8%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Med/Surg</td>
<td>484</td>
<td>457</td>
<td>87.4%</td>
<td>71.0%</td>
</tr>
<tr>
<td>Observation</td>
<td>18</td>
<td>18</td>
<td>71.7%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Med/Surg &amp; Obs</td>
<td>502</td>
<td>475</td>
<td>86.8%</td>
<td>66.2%</td>
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</tbody>
</table>
RN Capacity for Predicted ED Demand

Aggregate Demand/RN Capacity

Projected Total RN Demand
Total RN Staffing
What nurse staffing is needed to consistently provide safe and quality care?

Staffing for >95% census/occupancy

Staffing for > average census/occupancy

Eugene Litvak, PhD, Institute for Healthcare Optimization
Why should nurse leaders be “champions” for improving hospital-wide patient flow?

“Failing to achieve hospital-wide patient flow — the right care, in the right place, at the right time — puts patients at risk for suboptimal care and potential harm. It also increases the burden on clinicians and hospital staff and can accelerate burnout.” *

Some of the challenges in providing adequate nurse staffing to meet the fluctuating demands of patient census, acuity and complexity can be simultaneously alleviated by the implementation of strategies to improve the safe and timely patient progression throughout the hospital.

- Decreasing census variability due to elective surgical scheduling
- Ensuring adequate bed capacity for various clinical services which require specialized nursing skills and competencies to care the clinical and psychosocial needs of specific patient populations.
- Increasing nurses’ time in value-added care to ensure safe and effective care of patients
- Using advanced data analytics to match capacity (beds and staffing) and long-term, short-term and real-time patient demand

Real-Time Demand and Capacity (RTDC) Management Processes

Four Steps of Real-Time Demand Capacity Management

1. Predicting Capacity (Step 1)
2. Predicting Demand (Step 2)
3. Developing a Plan (Step 3)
4. Evaluating the Plan (Step 4)

Figure 1. The four steps of real-time demand capacity management are depicted.
Results at UPMC

Monthly Accuracy of Discharge Predictions, January 2007–November 2009

Percentage of Patients Who Left Without Being Seen (LWBS), January 2006–September 2010

Cardiothoracic (CT) ICU to 3 Main Transfer Time, January 2006–September 2010

Emergency Department (ED) Median Length of Stay (LOS) for Admitted Patients, July 2005–July 2010

## Surge Planning

<table>
<thead>
<tr>
<th>Green</th>
<th>Yellow</th>
<th>Orange</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflects an optimally functioning system, a state of equilibrium, homeostasis. Staff describe it as, a good day.</td>
<td>Reflects the state of early triggers which identifies and allows the system to initiate early interventions.</td>
<td>Reflects escalating demand without readily available capacity. In this state aggressive action required to avoid system overload and ultimate gridlock.</td>
<td>Reflects a state of gridlock as a result of system overload. The system should respond by using its organizational Disaster Plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Census</th>
<th>Acuity</th>
<th>Other</th>
<th>Staff</th>
</tr>
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Redesign the System
ED Median Total Length of Stay (min)

New ED
Partially Open

Rapid Assessment

Patient Partner

New ED
Fully Open
Separate Flows for Elective and Non-Elective Surgical Cases

Mayo Clinic Florida

- Surgical volume and surgical minutes increased by 4% and 5%, respectively;
- Prime time use increased by 5%;
- Overtime staffing decreased by 27%;
- Day-to-day variability decreased by 20%;
- The number of elective schedule same day changes decreased by 70%;
- Staff turnover rate decreased by 41%. Net operating income and margin improved by 38% and 28%, respectively

### Foundational Elements for ICU Efficiencies and Patient Flow

<table>
<thead>
<tr>
<th>Stabilization</th>
<th>Weaning</th>
<th>Mobility</th>
<th>Prevent Complications</th>
<th>End of Life</th>
</tr>
</thead>
</table>
| • Sepsis protocol  
• Fluid stability  
• Ventilator management | • Decrease Vent hours  
• Sedation protocol/ w holiday  
• Weaning criteria – “no MD”  
• 24-hour weaning, extubating | • Protocol online  
• Standard workflow  
• Delirium assessment (CAM-ICU)  
• Metrics | • VAP, CLABSI protocol  
• FMEA –low volume  
• Renal injury  
• DV ?? | • Secure and respect wishes  
• Family meeting in 24 hours  
• Clear follow-up plan |
Standardizing Multidisciplinary Rounds

Old Model

Resident or other provider presented case and any updates; other input contributed ad hoc:
- Less experienced nurses often felt uncomfortable jumping in unless resident remembered to ask
- Residents unclear on contribution

Patient Progression Model

Case Manager facilitates discussion prompting each discipline for input on standard, defined elements
- Created clear expectations for participation and care is planned more collaboratively
Discharging Patients when Medically-ready

- Medical-readiness criteria for discharge established at admission
- Nurse at bedside notifies service when medical discharge criteria are met
- Discharge from hospital with 2 hours (> 2 hours = discharge delay)
- Review length of stay and readmissions as balancing measures
Managing Discharge when Medically Ready

% Discharged within 2 Hours of Medically Ready

Includes patients on A6C, A6N, A6S, LA1W, B5CA, A3N, A4N, and A6S
Moving Beyond Traditional Case Management Approaches

Inpatient Practices
• Discharge Planning
• Interdisciplinary Rounds
• LOS Rounds (weekly)
• Escalation
• Emergency Department Case Management/Social Work
• Payment deals with post acute providers
• Consolidation of Inpatient Case Management and Social Work that resulted in parallel play
Driver Diagram: Ideas to Improve Hospital-wide Patient Flow

**Outcomes**
- S1 Provide end-of-life care (what care, and where) in accordance with patients’ wishes
- S2 Decrease demand for medical-surgical beds by preventing avoidable readmissions
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- S7 Decrease artificial variation in surgical scheduling
- S8. Utilize a data-driven operational management system for hospital-wide patient flow
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**Primary Drivers**
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**Secondary Drivers**
- C1.1 Reliably identify end-of-life care wishes and proactively create and execute advanced illness care plans
- C1.2 Develop hospital-based and community-based palliative care programs
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- C3.3 Develop partnerships with payers to ensure payment for needed services
- C4.1 Use enhanced community-based coordination of services for patient populations with complex medical and social complex needs
- C4.2 Provide home-based primary care for high-risk populations
- C5.1 Increase capacity in primary care practices to provide timely access to a care team
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- C7 Redesign elective surgical schedules to create a predictable flow of patients to downstream ICUs and inpatient units
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- C12.2 Use advance planning and cooperative agreements for transfers to rehabilitation facilities, skilled nursing facilities, nursing homes, and mental health treatment facilities
Complete Diagnostic Self-Assessment of Current Hospital Flow Performance

Understand High Leverage Change Ideas to Improve Hospital-wide Patient Flow

Prioritize Areas of Focus and Select a Portfolio of Improvement Projects
IHI’s Hospital Flow Professional Development Program is designed for a team or individuals who are tasked with hospital operations, throughput, and ensuring optimal patient flow in the acute care hospital.

- 5-day intensive shared learning and capability building
- 20 leading health care expert faculty presenters
- Leverage opportunities to collaborate with expert faculty and successful hospital leaders to develop or refine a detailed, customized action plan
Achieving Hospital-wide Flow: Right Care, Right Place, Right Time

November 4-8, 2019 | Boston, MA

Participants will learn from:
• Expert faculty
• Case study presenters
• Other program participants

Participants will have opportunities to engage in:
• Pre-assessment of current hospital-wide flow performance
• Working sessions with team members
• Exchange of ideas with other program participants & faculty
• Ad hoc faculty coaching

More information at ihi.org/hospital-flow
Who should attend?
This program is designed for teams who are responsible for implementing and maintaining operational efficiencies, throughput, and optimizing patient flow in acute care hospitals.

While individual participants will gain value from this professional development program, IHI strongly recommends that hospitals and health care systems consider sending teams of 4 to 8 leaders to this program.

Recommended Team Members: CEOs, COOs, Chief Nurse Executives, Surgeons and Medical Directors, Nursing Directors, Service Line Leaders, Financial Analysts, Quality Improvement Leaders

More information at ihi.org/hospital-flow
Have Questions?

IHI’s Hospital Flow Professional Development Program
Pat Rutherford
VP, Institute for Healthcare Improvement
November 4-8, 2019
Boston, MA

1. Click chat bubble if panel does not appear automatically
2. Type your question here and send to everyone

This is the chat panel
Thank you!

Please reach out to krowbotham@ihi.org with any questions about the program