

SYNCHRONIZING ADMISSIONS, DISCHARGES AND TRANSFERS



Hamilton Health Sciences



In *Synchronizing Admissions, Discharges and Transfers*, Hamilton Health Sciences describes an initiative which used a bed assignment tool, a scheduling discharge tool, a policy to transfer one admitted patient per service from the ED each morning to an unbudgeted on service unit bed, ward specific formulas and a site status communication tool to communicate information from bed management meetings. The objectives were to optimize the linkage between the time a patient is discharged and the ability to accommodate the next patient. The results were an improvement in the percentage of time patients spend being cared for in off service locations (i.e. in locations resulting from space constraints) from a mean of 9.25% to 8.88%, with smaller variability month to month and a more consistent wait time for admission once the order for hospital admission has been made in the emergency department. Since the beginning of the initiative in October 2006, the Henderson Site has not had average wait time from order to admit that is out of the acceptable range.

Contact:

Ivan Yuen
yuen@hhsc.ca

Authors:

- Yuen, I., BSc, MSc (candidate), Quality Specialist, Quality, Patient Safety, and Clinical Resource Management Program (QPSCRM)
- Henderson, N., Quality Specialist, QPSCRM
- Evans, W.K., MD, FRCP(C), President, Juravinski Cancer Centre
- Smith, T., RRT, BSc, MBA, Assistant Vice-President, QPSCRM
- Taylor, S., BScN, MBA, Senior Consultant, QPSCRM
- Potvin, C., RN, BScN, MBA, Director, Surgical and Radiation Programs and Site Administrator, Henderson/Juravinski Cancer Centre
- Johnson, G., RN, BScN, MSc, Director, Orthopedic, Medicine, Emergency and Infection Control Programs
- Rand, C., MSc, MA, Director, Systemic, Supportive and Regional Cancer Programs
- Metham, S., BComm, MBA, Manager – Quality, QPSCRM

Purpose:	The Synchronizing Admissions, Discharges and Transfers initiative was established to address known patient flow and bed capacity pressures. Analysis showed that average discharge time was late in the day, with most admissions occurring in the morning, creating a mismatch or a ‘mid-day hump’, that routinely caused long ED wait times, canceled/deferred surgery, and high off-service rates. The overarching aim was to match demand for patient care beds with supply,
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	thereby ensuring that the right patients receive the right care in the right place from the right provider at the right time for optimal clinical outcomes.
Context:	Synchronizing Admissions, Discharges and Transfers is a sub-initiative within a larger HHS corporate initiative – Henderson Patient Flow Innovation and Learning Site. This corporate initiative utilizes performance data and empowers front-line staff to build capacity to undertake multiple quality improvement initiatives across the patient care delivery system. Stakeholder feedback is gathered through structured forums such as the Innovation and Learning Site Steering Committee, the Henderson Site Bed Management Steering Committee, and the Daily Bed Management Meeting in planning and developing the tools and processes for synchronizing admissions, discharges, and transfers. Feedback is also gathered through informal meetings with front-line staff and Clinical Managers to refine the tools and processes.
Resources:	1 FTE Quality Specialist position and 0.5 FTE Senior Consultant position provided by Quality, Patient Safety & Clinical Resource Management Program to support application of quality improvement tools and methodology. Support of Decision Support Services in acquisition of evaluation data. Leadership support provided by Henderson Site Patient Flow Innovation and Learning Steering Committee.
Source of resource:	Quality, Patient Safety, and Clinical Resource Management (QPSCRM) is a program internal to HHS, whose purpose is to facilitate and evaluate whether the right care is delivered by the right person, at the right time, in the right place, in an appropriate and efficient manner. The Synchronizing Admissions, Discharges and Transfers initiative is supported by approximately 1 FTE Quality Specialist and 0.5 FTE Senior Consultant (specializing in process improvement) from the QPSCRM program.
Population group:	All admitted acute (scheduled and emergent levels of care) and rehab patients at the Henderson Site are the target population to use Synchronizing Admissions, Discharges and Transfers tools and processes.
Patient flow entry and end points:	Entry points may include home, transfer from another hospital, admission from the emergency department, or the Juravinski Cancer Centre. Exit points include all separations from the acute or rehab institution (e.g. discharge to home, alternative level of care, etc.)
Description/ approach:	The initiative utilized the Hamilton Health Sciences Change and Quality Improvement Model, which was adapted from the IHI Improvement Model (Define-PDSA). With input from Clinical Managers and front-line staff, tests of change were developed and concurrent PDSA tests of change were carried out, with decisions made to adapt, abandon, or adopt the changes.

<p>Tools and tactics:</p>	<p>Tests of change trialed under the Synchronizing Admissions, Discharges and Transfers initiative include:</p> <ul style="list-style-type: none"> • Bed Assignment Tool – Day ahead planning tool for synchronizing admissions and discharges at the unit level • Scheduling the Discharge – Planning tool used to support discharges earlier in the day • Express Bed-A-Day – Policy to transfer one admitted patient per service from the ED each morning, to an unbudgeted, on-service unit bed, anticipating discharges later that day will bring the unit back to its budgeted bed census • Predicting the Discharge – Ward-specific formulas developed in consultation with each ward to predict the total number of discharges occurring over a specific time period. • Improving Daily Bed Management Meetings – Ground rules established with stakeholder input to enable clear communication and collaboration • Site Status Communication Tool – Tool developed to communicate information from daily bed management meetings in which there are clear conclusions using red/yellow/green indicators of site status <p>The tools and processes link together over a 24-hour period as follows:</p> <p style="text-align: center;">See Table 1 on Tables Page</p>
<p>Measurement approach:</p>	<p>Outcome measures include: Average time (hours) from order to admit to depart ED; percent CTAS 1,2 depart ED within 8 hours; Percent CTAS 3 depart ED within 6 hours; percent CTAS 4,5 depart ED within 4 hours; percent surgical cancellations due to no bed; Off-Service Rate (excluding ED days); ICU occupancy rate. Process measures include: Percentage of units filling out BAT; Percentage of discharges scheduled; Application of daily bed management ground rules; Percentage of units communicating expected discharges at daily bed management meetings; Percentage of days site status is communicated</p>

<p>Impact/ evaluation:</p>	<p>Off-service rates have decreased from a mean of 9.25% to 8.88%, with smaller variability month to month (see Figure 1).</p> <p style="text-align: center;">Figure 1 – HHS Henderson Site Off Service Rate (Excludes Patient Days in ED)</p> <p style="text-align: center;">See Table 2 on Tables Page</p> <p>Since the beginning of the initiative in October 2006, the Henderson Site has not had average wait time from order to admit to depart ED more than 2 standard deviations greater than the mean (see Figure 2).</p> <p style="text-align: center;">Figure 2 – HHS Henderson Site Average Wait from Order to Admit to Depart ED</p> <p style="text-align: center;">See Table 3 on Tables Page</p>
<p>Observation/ Discussion:</p>	<p>Linking rapid tests of change with the ability to recommend tools and processes to be adopted, adapted, or abandoned has been integral to achieving buy-in from site stakeholders.</p>
<p>Critical success factors/ lessons:</p>	<p>The culture shift enabled by the corporate Henderson Patient Flow Innovation and Learning Site initiative has been the most important factor in the success achieved by the Synchronizing Admissions Discharges and Transfers initiative. Support from the Steering Committee, senior leadership, and bed management committees has increased accountability, thereby maintaining progress for tools and processes developed under this initiative. Furthermore, support from front-line staff was generated by ensuring that the new strategies developed were value-added, reduced redundancy, and created an improved process.</p>
<p>Limiting factors:</p>	<p>In order to make further improvements, it is important to select outcome measures that delineate impacts made by this initiative from other improvement initiatives which also impact patient flow.</p>

TABLES PAGE

Table 1

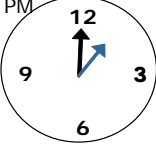
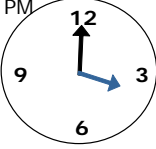
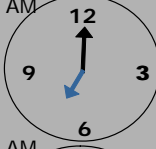
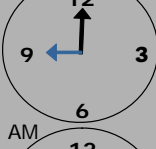
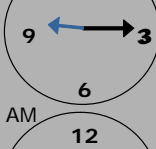
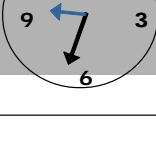
Day 1	Day 2	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>BAT - Determine confirmed and potential discharges for next day</p> </div> </div>	<p>Corporate Bed Management Policy (includes adaptation of Express Bed-A-Day Policy) – Bring 1 patient from ED to designated waiting area if policy applies</p> <p>Predicting the Discharge – Calculate expected discharges using based on confirmed/potentials from BAT</p> <p>Bed Management Meeting (+ Ground Rules) – Discuss that day's admissions/expected discharges/transfers</p> <p>Site Status Communication Tool – Communicate site status to MDs, Joint Program Directors, SACs, Henderson Clinical Managers and MNA</p>	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Schedule the Discharge – Schedule confirmed discharges into discharge slots; inform patients and family</p> </div> </div>		
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Table 2

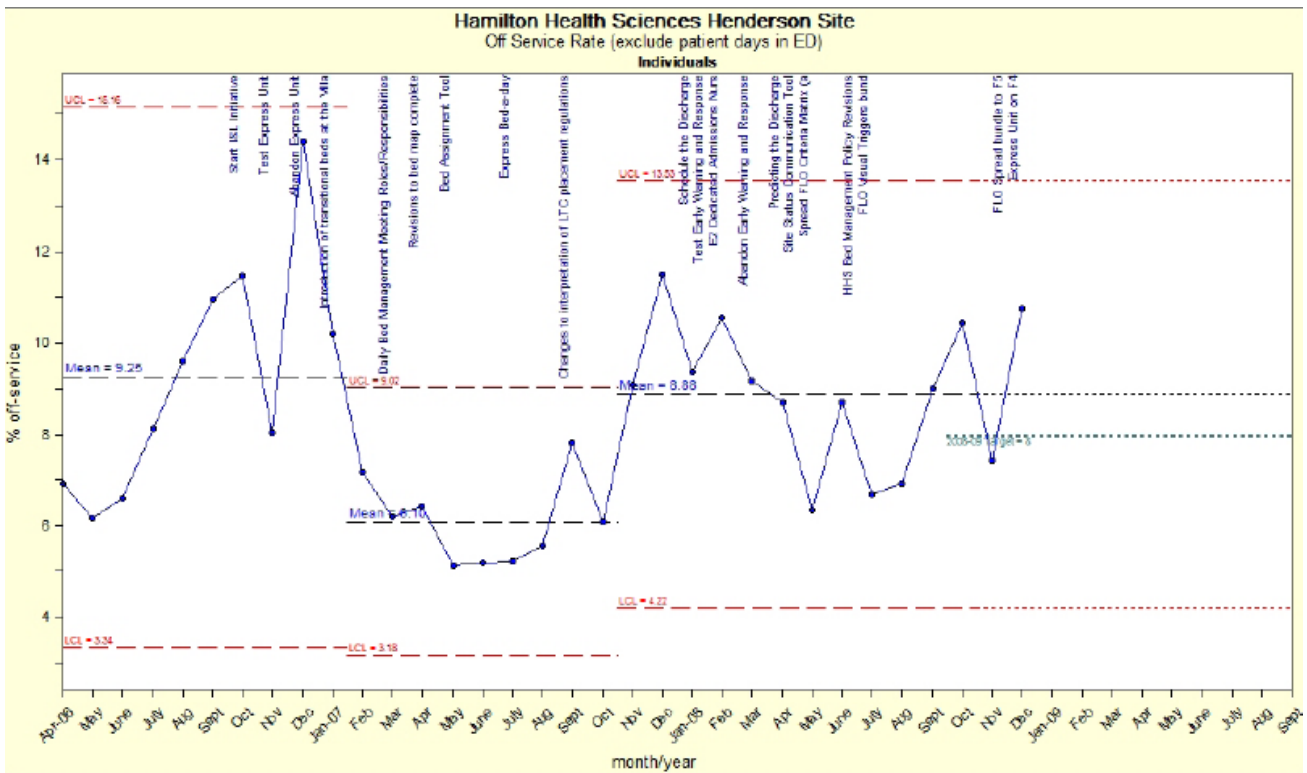


Table 3

