

# IMPROVING PATIENT FLOW AND CAREGIVER COMMUNICATION THROUGH USE OF AN ELECTRONIC NURSE REPORT AND NOTIFICATION



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Editor's Summary: In *Improving Patient Flow and Caregiver Communication through use of an Electronic Nurse Report and Notification System*, the London Health Sciences Centre describes how the organization coordinates the flow of patients who need to be admitted to hospital from the emergency department into an inpatient bed. Using the assistance of a designated facilitator, an electronic patient care report (ePCR) and a nurse call notification system, among other innovations, the organization was able to reduce the delay from emergency department to inpatient bed from 3 hours to 1.5 hours, with the eventual goal of transfer within one hour.

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**Contact:**

Neil Johnson

[Neil.Johnson@LHSC.on.ca](mailto:Neil.Johnson@LHSC.on.ca)

**Author:**

Deb Karcz – Nursing Professional Practice Specialist

<b>Purpose:</b>	This project was designed to coordinate the patient journey through the care process efficiently and safely with outcomes of reductions in time wasted and effort in process. It was also intended to address a longstanding issue of communication between interdisciplinary healthcare providers as well as addressing an element of an Accreditation's Required Organizational Practices (ROP) related to patient care hand offs. Specifically, it was designed to facilitate access to empty and available inpatient beds and improve nursing documentation using existing electronic technology related to the report process on transfer out of the Emergency Department (ED). There were also corporate access concerns with boarded admitted patients in the ED as well as surgery cancellations.
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<b>Context:</b>	London Health Sciences Centre (LHSC) is a multi-sited acute care academic health sciences centre with the broadest array of clinical programs of any single hospital in Ontario. In 2007/8, LHSC embarked on a corporate wide initiative to improve patient access and flow supported by Ministry of Health Funds and hospital operating funds. Growing demands in LHSC's ED, medicine and surgery programs were threatening quality of care and the academic mission of the organization.
<b>Population group:</b>	The population group and scope of this project was adult and paediatric admitted patients in the ED and transferring care to inpatient unit's available beds. The project began at one site in a fax transmittal format and then moved to the other acute care sites. The final stage occurred in November 2008 with a replacement of the fax process at the initial site with the electronic process.
<b>Patient flow entry and end points:</b>	From the time the patient left the ED until the time the patient arrived in the inpatient bed.
<b>Description/approach:</b>	An external consulting firm was hired and facilitated the project work. A unique approach was utilized in this project as it focused on the patient flow from the intake source, the ED, through the admission processes to the inpatient unit and disposition. This was one of the first times that work spanned across programs/departments to address the issues that were interdependent. Each project team consisted of a manager as team lead who would then become the process owner, other interdisciplinary team members including nurses, nursing professional practice, allied health professionals, support staff, physicians and other clinical leaders. The approach consisted of a 12 week process utilizing lean techniques including a diagnostic phase, solution design phase, pilot phase and hand-off phase. A core principle was creating capacity within LHSC staff and leaders. The tools developed then evolved during the second wave and were implemented throughout the hospital including adult and pediatric as well as mental health programs during subsequent waves.
<b>Tools and tactics:</b>	The tools that were developed and implemented include the use of an electronic Patient Care Report (ePCR), and Nurse Call Notification system using Internet Protocol (IP) phones. Written procedures and guidelines were also developed. Ongoing education of new staff and physicians continues to occur. An existing role was remodeled and additional resources were added to enable continuity throughout the patient visit. The Patient Care Facilitator role supports and assists in the sustainability of this initiative.
<b>Measurement approach:</b>	The time delay from notification that the bed is available to the time the patient is actually received in the bed was measured and evaluated.
<b>Impact/evaluation:</b>	Initially, the time delay was reported as an average of three hours. In the first month, the average was reduced to 1.5 hours and has reached a plateau on average of one hour. The target goal is one hour.

<p><b>Observations/discussions:</b></p>	<p>One cannot underestimate the resources required for this type of project. Communication is the key to success no matter how many venues or methodologies have been used. Leveraging existing technology has allowed a group of clinical nursing staff to see what the future may hold for an Electronic Patient Record. Additionally, the former discussion around information discrepancy has been reduced with the ePCR. Although this is a tool that was implemented for a number of reasons, it never replaces the need for a phone call for clarification. Reduction in the number of repetitive phone calls has been beneficial.</p>
<p><b>Critical success factors/lessons:</b></p>	<p>The need to free up and involve leaders and clinical staff from regular commitments to focus on the process is essential. These are the people who do the work so should be involved in the solutions and adds to the ownership of its success. This also adds to sustainability of the initiatives. The development of a stakeholder analysis and change and communication plan was very useful. Communication was frequent and informative allowing buy in from those impacted.</p>
<p><b>Limiting factors:</b></p>	<p>The continued bed pressures have also been a deterrent in enabling these initiatives to meet their full impact. Process issues continue to surface while the sustainability pieces continue to be revised and revisited.</p>