Improving Access and Service in Academic Emergency Departments

Editor's Summary: In *Improving Access and Services in Academic Emergency Departments*, the London Health Sciences Centre implemented an improvement initiative to address the needs of patients who present to the emergency department but who meet the Canadian Triage Assessment Standards (CTAS) of 'less urgent' or 'non urgent' (CTAS scores of 4 or 5). By addressing the needs of these patients they benefit and capacity becomes available to address more urgent needs. Under the umbrella of a larger corporate initiative, the team used the services of an external consultant and tools such as value and process mapping as well as a 'rapid assessment zone' towards the goal of reducing the length of stay of CTAS 4 or 5 patients to under 4 hours.

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Purpose:	The purpose of these three projects, as a subset of a larger organizational access project, was to specifically target the performance metrics related to patient wait times in the Emergency Departments (ED) while maintaining high quality of care. Although many hospital systematic factors influence ED wait times, the purpose of these projects were to focus on how efficiencies could be made in the patient journey from arrival to the ED until disposition home or admission. Increasing patient wait times for non urgent cases, emerging ministry targets as well as patient, staff and physician satisfaction provided a burning platform to engage in these projects.

Context:	London Health Sciences Centre (LHSC) has three emergency departments located on two sites, University Hospital (UH) and Victoria Hospital (VH) providing emergency services to London and area. Each site further supports clinical specialties associated with each site including Clinical Neurosciences at UH and Trauma and Mental Health at VH Adult, Paediatric specialized care at VH within Children's Hospital. Combined ED volume includes 143,870 (2007/08) visits with an overall admission rate of 11.8%. In 2007/8, due to mounting bed pressures, LHSC embarked on a corporate wide initiative to improve patient access and flow supported by Ministry of Health and hospital operating funds. Growing demands in LHSC's emergency, medicine and surgery programs were threatening quality of care and the academic mission of the organization.
Population group:	The population group included all patients coming to the ED for care. Although all EDs identified different opportunities to enhance patient flow recognizing different patient populations, all EDs did have in common the desire to focus on improving the flow of the low acuity patient typically seen in the Canadian Triage and Acuity Standards (CTAS of 4 (less urgent) and 5 (non urgent)).
Patient flow entry and end points:	The scope of the projects included from time of patient arrival to the ED to the time of disposition decision (discharge home, admit or transfer). Value stream maps were created and validated at each site depicting the typical patient flow as well as opportunities for improvement.
Description/ approach:	An external consulting firm was hired and facilitated the project work organizationally. The overall scope of the work included the patient journey from entry through the ED, the admission process and finally the inpatient stay. This was one of the first times that work spanned across programs/departments to address the issues that were interdependent. In total there were three waves of projects at LHSC, all including an emergency team. Each project team consisted of a manager as team lead who would then become the process owner, other interdisciplinary team members including nurses, allied health professionals, support staff, physicians and other clinical leaders from other departments. The approach consisted of a 12 week process utilizing lean techniques including a diagnostic phase, solution design phase, pilot phase and hand-off phase. Numerous opportunities for improvement were piloted and evaluated and refined using metric measures. A core principle of the projects was creating capacity to engage in continuous improvement within LHSC staff and leaders. The projects rolled out in consecutive waves beginning with University Hospital through VH Adult and ending with VH Paediatrics. Key learnings from each wave project were leveraged in subsequent projects as well as modified to meet the unique client needs, resources and geography of the project site.
Tools and tactics:	To heighten awareness to patient on the Fast Track approach, a number of communication vehicles were used including signage, patient brochures and posted estimated wait times for non urgent cases.

Measurement approach:	Length of stay was used as the key metric in assessing the success of the Fast Track initiative. The target used was 90% of patients coded as CTAS 4 or 5 would have a LOS of less than four hours. Metric measurement was available through a simultaneous project of daily metrics posted on the organizations Intranet for all staff and physicians to view. During the pilot phases of the projects, qualitative data was also sought from patients to understand the patient perspective of the new initiative. The rate of patients *left without being seen* was also used to assess expediency of care.
Impact/ evaluation:	With implementation of a Fast Track all sites significantly reduced the overall LOS and left with out being seen rates for non urgent patients during the pilot phases. Interestingly, the opening of a Fast Track area also lowered the overall LOS for patients in the higher triage categories. This is important to monitor because given the nature of ED care, the sicker patient LOS should not be negatively impacted by delaying care treating lower acuity patients more quickly.
Observations/ discussions:	The success of these projects was largely due to a committed multidisciplinary team, with dedicated time devoted to the project, which allowed capacity building in the tools and methodology of continuous improvement. To enhance sustainability a large focus was placed on communication and change management throughout the life of the project to keep all staff and stakeholders apprised of progress. Particular attention should be placed on physician engagement. It may be difficult for physicians to attend regular weekly meetings therefore creatively is needed to ensure physicians are a part of the process as well as part of change and communication plans.
Critical success factors/ lessons:	An essential part of this project is having senior leader support through sponsorship to help the team remove any barriers that may impede the team progress. Sponsors at all levels were regularly briefed as to the teams' progress and acted as 'cheer leaders' for the initiatives. Sponsors are also key in supporting the need to free team members up from regular duties to focus on the project. For true change and capacity learning to occur, the team lead (typically the process owner) should be devoted to the project full time and not trying to lead a project *off the corner of the desk*. Having the process owner fully committed further aids in sustainability of the initiatives once the project has ended. Attention to stakeholder analysis, change management and communication cannot be understated. Frequently on teams, one team member was devoted to this role aiding in surfacing issues or perspectives that the team has not uncovered.
Limiting factors:	Due to high bed occupancy (typically 100-109%) and high numbers of alternate level of care patients, boarded patients continue to be a factor in moving adult patients out of the EDs making it difficult to provide high turn over of low acuity patients, when high acuity patients need the emergency stretchers. Further high numbers of ambulance off load delays make it difficult to devote space for lower acuity care, which can lead to ethical dilemmas in who gets treated first.