Strategic Clinical Improvement Committee
Partnerships in Action

University of Alberta Hospital Admission Protocol Impact on Emergency Department and Patient Flow

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DEFINE OPPORTUNITY

Background, Problem Statement and Goal Statement: In November 2007, a decade ago, the University of Alberta Hospital (UAH) Emergency Department (ED) Admission Protocol was developed using wide-spread consultation among the Medical and Surgical section leads and ultimately signed off and adopted by the UAH Site Medical Leadership. In addition to providing general guiding principles for consultation in the ED, it also provides specific guidelines for which service should be responsible for admitting what type of patients mainly based on their diagnostic presentation and the resources that are available to those services at the time of presentation.

Problem Statement: At the UAH, the average consult times from consult request to decision to admit is approximately 4.5 hours. There is a continual risk to patient safety and experience as at least 15% of Admissions occur after two or more consults. Delays in admission consultation, defers the provision of care, impacts ED overcrowding and hospital wide patient flow (2016 Tableau Data).

Baseline data: March 2017, a focus group was held with Emergency Department (ED) Physicians which revealed that 100% (17/17) were aware of the existence of the Admission protocol, 82% (14/17) indicated utilizing the Admission protocol "sometimes". Infrequent use was as a result of outdated protocol, pushback from consult services, the lack of site enforcement, lack of understanding, and the reality that some patients are better suited for services not covered in the Admission protocol. A second focus group discussion was conducted with a number of ED physicians, General Internal Medicine (GIM) Physicians and Senior Internal Medicine Residents. There was unanimous agreement that GIM is the service that any patient with Medical illness can be admitted to and becomes the so-called "default service" regardless of diagnosis and without consideration of bed allocation. February 2017 data analysis revealed that ~7% (19 of 284) admissions to the GIM service could have been admitted to alternate services when mapped to the existing 2007 Admission Protocol.

Aim Statement: Dec 31, 2017

Process measure: 100% of UAH specialty services receive and review the updated 2017-UAH admission protocol and provide feedback with appropriate UAH Site Medical Leadership sign off

Outcome measures:

1. 50% increase in utilization of Admission Protocol consistently by ED Physicians and Consult services
2. 50% reduction in "inappropriate" admissions
3. 50% reduction of multiple consults
4. 20% reduction in ED and GIM Physicians dissatisfaction related to frustration with admissions process as a whole

BUILD UNDERSTANDING

Process Assessment: An analysis of the 9 main services with admitting privileges (Family Medicine, GIM, Cardiology, Gastroenterology, Nephrology, Neurology, Pulmonary, Hematology and Geriatrics) yielded 10,166 Medical admissions in 2016. 31% (3175 patients) were identified as having multiple consults and a random sample of 222 multi-consult patients was selected for chart audit.

Results of the chart audit showed the following:

- 81.7% patients were admitted to the appropriate service according to the guidelines of the 2007 Admission Protocol.
- 18.3% patients could have been admitted to alternate services when mapped to the guidelines of the 2007 Admission Protocol.
- Figure 1 depicts, 53% of multiple consults were requested on the evening shift, 16% on night shift, and 31% during the day shift
- Figure 2 shows that for each additional consult made, there was an average of two hours delay for patient admission
- Figure 3 shows that GIM was the admitting service for a majority of patients despite initial consults to other services

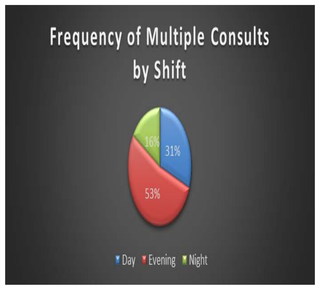

Figure 1

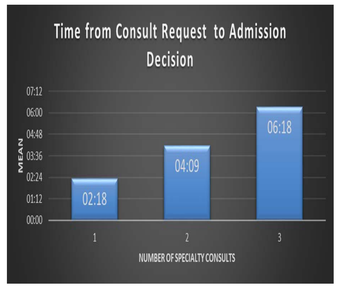

Figure 2

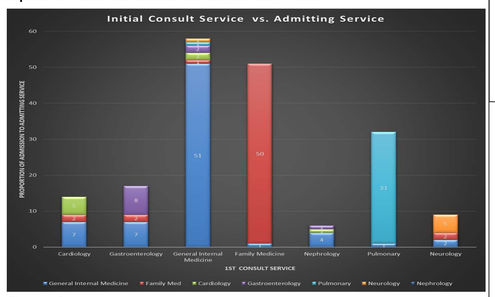

Figure 3

- A quality methodology-Gemba was also conducted to determine the high level processes under review to assist with identifying areas of opportunity.

ACT TO IMPROVE

Informing Improvement Selection:

Gemba walk, focus groups and chart audit helped to identify areas of opportunities for improving the service consultation and admitting process in the ED.

Areas of Opportunity:

1. Admission Protocol needs to be updated and approved by the appropriate stakeholders
   - Include more categories of presenting symptoms i.e. delirium
   - Improve clarity of which services should be consulted based on presenting symptoms

2. Knowledge translation tools to be used to promote increased utilization of the Admission Protocol: for example, job aides may be developed to increase utilization of the Protocol

3. Reducing uncecessary multiple consults (for example, consulting both Family Medicine and GIM for patients with complex health needs)

4. Reducing the need to have multiple consults by developing protocols for certain medical presentations (for example, patients with GI bleeds to be admitted directly to GIM and GIM will consult GI when necessary)

5. Reducing requests to have multiple consults for evening and overnight shifts when the specialty services are already understaffed.

With these areas of opportunities identified, plan-do-study-act (PDSA) cycles can be carried out with a measurement plan that incorporates a change management plan developed and approved. Real time feedback will be collected from both the ED physicians and speciality service physicians to track the utilization of the Admission Protocol and ease of use. Ultimately, our goal is to reduce cycle time from first service consulted to patient admission promoting efficient patient care and flow in the ED.

SUSTAIN RESULTS

Reinforce Ownership, Measurement & Continuous Improvement:

PDSA data both qualitative and quantitative will be reviewed by the project team and project sponsors.

Fostering a culture of continual improvement and adjustments be made to the Admission Protocol as required supporting both appropriate service admission decisions and decreasing multiple consults.

SHARE LEARNING

Lessons Learned:

- Admission service decisions are complex and multifaceted in nature requiring both medical and hospital resource knowledge working together in the best care interest of the patient.
- The existence of the Admission Protocol should not be relied upon to the extent that it reduces the clinical judgement and lived medical experience of a physician. It is intended to be used solely as a guideline.
- Every process has some level of natural variation and this process is no different. Patient's care needs are unique to each patient and as such may require multiple ED consults. Therefore omission of multiple consults is not the goal only a reduction.

MANAGE CHANGE

Collaboration & Communication Strategies:

Support for and successful implementation of this initiative was obtained from UAH Site Medical and Operational Leaders and the UAH Site Quality Council. Successful use of the Admission Protocol and its emerging benefits is strongly dependant on physician culture, hospital resources and the patients' medical care needs.

Project team includes direct participation and input from various Divisional Physician Leaders. In addition, to support project understanding the following was completed:

- Emergency Department Physicians surveyed regarding their awareness, extent of use and challenges with the current Admission Protocol. Admitting Services provided feedback on the current guidelines and provided input for the complete review with the objective of identifying inclusions and exclusions.

- Health Information Management for the selection of patient charts for audit purposes.

- Analytics (DIMR) for extraction of relevant admission and specialty consult data.