

TWH ED ACUTE & SUBACUTE BEDS UTILIZATION PROJECT

PROJECT CHARTER

Title:

Toronto Western Hospital Emergency Department Acute & Sub-acute Beds Utilization Project

Team:

- QI team:
 - Lucas Chartier MD, Director of Quality and Innovation for ED – Project Lead
 - Barb McGovern RN, Advanced Practice Nurse Educator for ED
 - Lycinia Simoes RN, Patient Care Coordinator for ED
 - Meredith Kuipers MSc, Research Associate for ED
- Larger leadership/support team:
 - Mary Kay McCarthy RN (executive sponsor), Senior Clinical Director, ED/GIM/Geriatrics
 - Anil Chopra MD (manager), Medical Director for ED
 - Kathy Bates RN (manager), Nurse Manager for ED
 - Sam Sabbah MD, Assistant Medical Director for ED
 - Krista Stephenson RN, Bedside & Triage & Charge Nurse in ED
 - Steven Friedman MD, Assistant Director, Research, for ED

Project summary:

Patient volumes and medical complexity have increased at the Toronto Western Hospital (TWH) Emergency Department (ED) over the last few years, but without commensurate increase in staffing, infrastructure and resources. This has led to marked congestion in the ED, with increasingly high number of patients waiting to be placed in a bed from the waiting room after triage – leaving the ED team with a potentially precarious medico-legal situation. At the same time, some patients waiting in a bed after their assessment do not require it for their medical treatment plan. We believe there must be a way to redistribute the patients in a more patient-centered way to ensure patient safety and timely access to care, and this project will utilize quality improvement tools to achieve this goal, and implement sustainable changes in our local environment.

Rationale:

The volume of patients seen in the TWH ED has increased tremendously over the last decade, averaging 6–7% growth in volume per year. Increases in resources and improvement in infrastructures have not kept pace with the growing volume of ED visits, as a result of the current economic constraints faced by most Canadian/Ontario hospitals. This includes limited physical space for expansion and fixed availability of ED and inpatient beds. On any given day at the TWH ED, the waiting room is filled with patients who are undifferentiated and potentially unwell or unstable, and who are awaiting an empty stretcher to be available inside the main ED for assessment. Data obtained from the Toronto Emergency Medical Services (EMS) reveals that on most days at TWH there are upwards of a dozen such patients, mostly in the afternoons and evenings. The waiting room is managed by one or two triage nurses, whose attention is focused on assessing and triaging new patients as they arrive to the ED. Due to the clinical and administrative demands placed on the triage nurses as a result of high volumes of patients presenting to the ED, they may be unable to detect worsening in clinical condition by one or more patients who are seated in the waiting room.

Inside the main ED, high acuity beds are typically reserved for patients presenting with urgent medical concerns or unstable vital signs. However, not all patients occupying these beds have conditions that require them to stay in a bed after thorough assessments have been completed by the inter-professional team. Patients who do not require a bed as part of their treatment plan could be re-assigned to an alternative seating arrangement. This would free up the scarce ED resources – the bed and the room – for the next patient waiting to be seen. For example, clinically stable patients waiting for the result of diagnostic investigations, or patients who are receiving treatment under continued observation, may not require lengthy occupation of an ED bed and could be reasonably relocated to alternative seating without compromising their ED care. Examples of such patients would be those receiving fever treatment, intravenous rehydration, or observation after treatment for an allergic reaction.

This project aims to address the issues of access to care, efficient allocation of resources, and patient safety by altering the flow of patients through the TWH ED. In other words, given existing constraints on resources and infrastructure at TWH, it would be prudent to redistribute patients in a way that is safer for patient care, is more medico-legally sound for our nurses and other providers, and that contributes to timely access to services for the community. In short, we need to move patients faster from the waiting room to the main ED and ensure appropriate use of resources for patients once inside.

Aim statement:

By July 31st, 2015, 90% of the patients triaged to the Acute or Sub-acute side of the ED at the TWH will have been brought to a bed for assessment by a health care provider within 45 minutes of triage.

Model for Improvement:

As part of the continuous improvement work being undertaken at the TWH ED, the focus of this project is on the 'front end' of the patient journey – that is, the time a patient spends in the waiting room between their time of triage and being moved into a bed in the acute or sub-acute side of the ED. While our current goal of 45 minutes is ambitious, we are confident that we can achieve our target using a quality improvement (QI) framework to implement innovative strategies and improvement processes to better the care we provide to our patients. We will use QI tools such as process mapping, stakeholder analysis, the Ishikawa (fishbone) analysis, driver diagrams, and PDSA cycles and ramps to model, test, and measure each change.

To date, our team has used different QI tools and practices to best inform our improvement efforts (see appendices).

Process and Stakeholder Mapping (Appendix 1 and 2): Through process mapping and stakeholder mapping, the project team charted each step of the patient journey through the ED, including all people involved at each step; this allowed us to identify decision points as possible targets for improvement actions.

Ishikawa analysis (Appendix 3): This exercise generated multiple potential contributing factors under four main categories that result in the prolonged time that patients spend waiting between triage and bed placement. Each of these contributing factors is a potential area of focus for improvement efforts.

Driver Diagram (appendix 4): Using the potential factors identified in the fishbone diagram as stimuli, our team populated the driver diagram to generate a logical set of goals and sub-projects related to the prolonged time a patient spends in the waiting room between triage and bed assignment.

Plan-Do-Study-Act cycles: Going forward, planning for individual PDSA cycles will be informed by the actions and projects identified in the driver diagram.

The expected results and improvements of this project will be limited to the TWH ED, and we fully expect the improvements in the processes of care to become permanent changes in our department.

Measurement and handling of data:

All data being analyzed as part of this project are data that are routinely collected, monitored and analyzed as part of the day-to-day operations of the TWH ED. We will closely work with Decision Support, as well as our ED leadership team, in order to utilize existing databases (e.g. Whiteboard, ERNI, etc). We will not collect, analyze or otherwise utilize individual patient data (or data that could be used to identify individual patients or providers); only aggregate data that are already being collected by the ED (mean, median, 90th percentile of departmental operational measures) will be captured and shared among members of the QI team.

Outcome measure:

- Main
 - Time from triage to placement of patient in bed (Time-to-Bed)
- Secondary
 - Time from triage to physician initial assessment (PIA)
 - Total length of stay (LOS) in the ED for patients discharged home

Process measure:

- Daily spot checks with Patient Care Coordinator of percentage of patients inappropriately still located in beds (as per predefined criteria; without collecting individual patient data)
- Median number of patients awaiting bed placement on a daily basis

Balancing measure:

- Increase in the number of "workload form"¹ submissions relating to nursing assignments
 - Filled when RNs feel workload was inappropriate or unsafe during their shift (data about the actual forms and the individuals submitting them will not be collected)
- Percentage of "bounce-backs" (return to ED within 72hrs) from patients discharged home (aggregate data, not individual)
- Incidence of patient refusal to be re-assigned to new location (without individual patient data or information)
- Number of patients who left the hospital without being seen (LWBS; also aggregate measure)

Anticipated barriers and mitigation strategies:

- Culture of 'patient owns bed for entirety of stay' (from both patients and providers perspectives) – this is something that is currently being addressed in our ED (separately from this project), and we will work with the entire team to continue the transition towards better flow of patients in the ED. Strategies to drive change in perspective include:
 - Pamphlets and communication strategy from bedside RNs, in-room signage
 - Charge nurses as back-up for explanations
 - Staff education to ensure buy-in
- Lack of situational awareness (inherent to many health care workers) among front-line staff contributes to apparent/perceived lack of appropriateness in distribution of patients
 - For RNs: demonstration of lack of appropriateness in distribution of patients given that many outside, undifferentiated and potentially unstable patients are managed by only a few over-worked triage RNs
 - For MDs: demonstration that patient work-up (or recognition of sickness) can be initiated sooner by bringing patients in a bed sooner, thereby improving flow

¹ The ONA Professional Responsibility Workload Report Form is used for reporting workload issues in hospitals.

Anticipated timelines and key milestones:

- February
 - Stakeholder mapping
 - Process mapping
 - Driver Diagram completion
- Mid-February
 - Stakeholder participation in Ishikawa analysis for project definition
- Early-March:
 - Data collection for baseline measures
 - Stakeholder engagement
- Mid-March:
 - Clarification of project aim, based on baseline measurements
 - Development of PDSA cycles
- End-March:
 - Start implementation and testing of change ideas
 - Continue to monitor data
- April:
 - Update with Leadership group
 - Continue with PDSA cycles and data collection and analysis
- May:
 - Plan for sustainability
- June:
 - Plan for spread

Resources required:

The resources required for this project are all contained within the larger team's area of influence, and no additional resources or funding will be required for the completion of the project. In other words, the resources that will be attributed to this project would have been attributed to the ED for improvement in operations in the absence of the project itself.

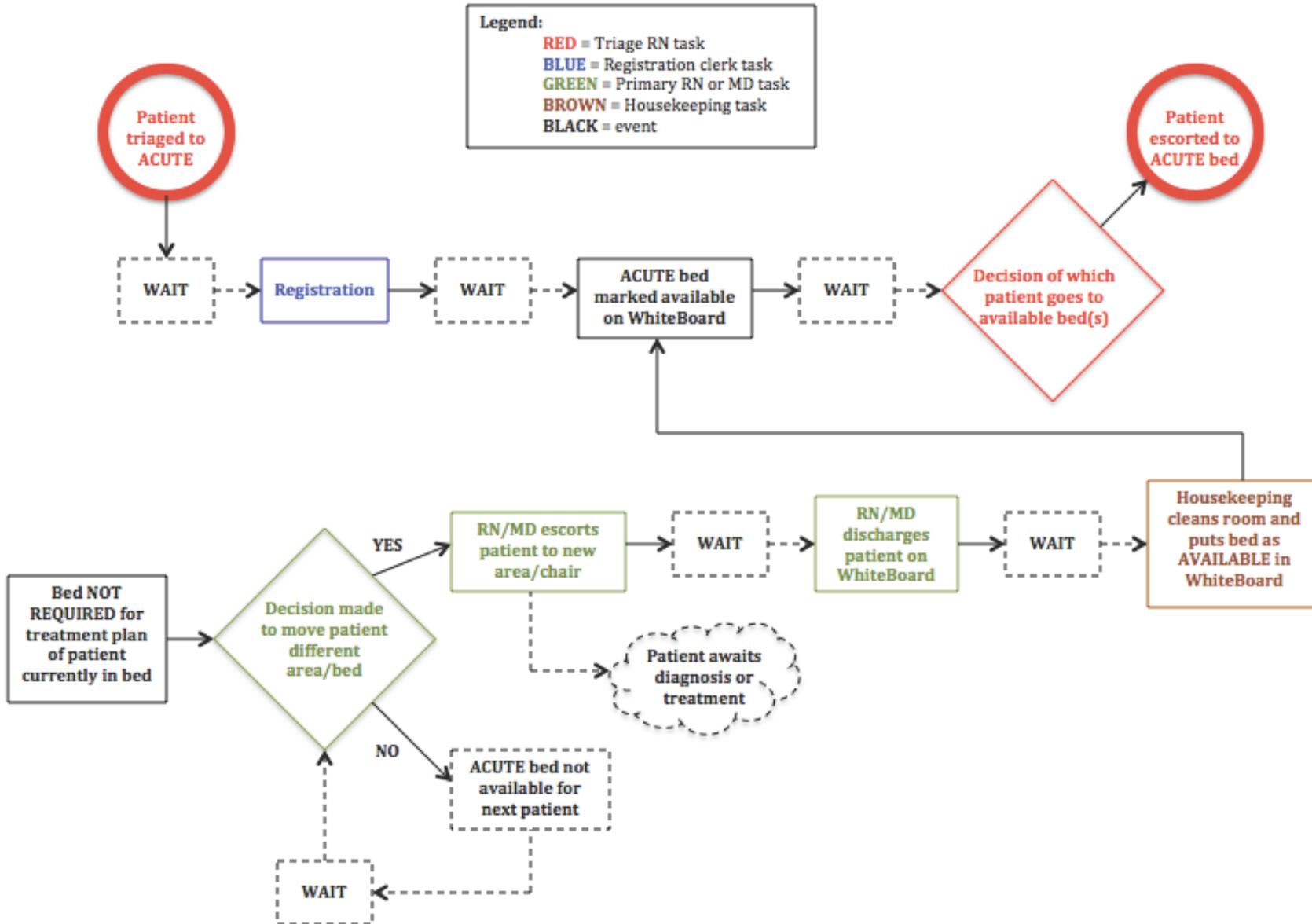
- From Executive Sponsor (MKM):
 - Financial resources for new equipment or infrastructure
 - Consideration of additional equipment (chairs, tables) for inside waiting room
 - Resources for additional staffing if required
 - Nursing or otherwise (housekeeping, clerk)
- From ED Medical Director (AC):
 - Commitment to support change ideas pertaining to physicians
 - Decision to move patients to chairs by RNs
- From ED Nursing Manager (KB):
 - Commitment to support change ideas pertaining to nurses
 - Assignment changes

APPENDICES

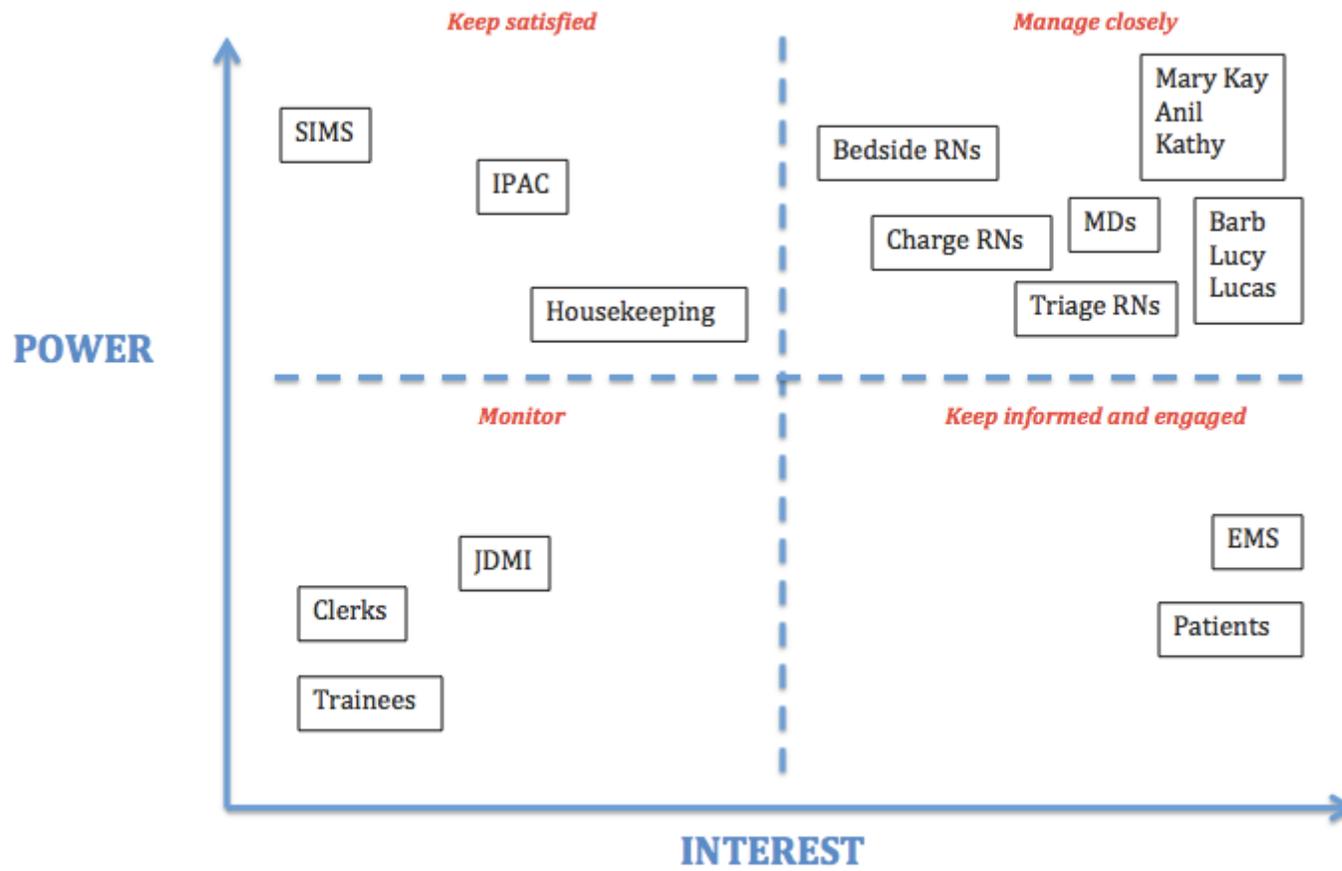
1. Process Map
2. Stakeholder Map
3. Ishikawa analysis (fishbone diagram)
4. Driver Diagram

Appendix 1 – Process Map

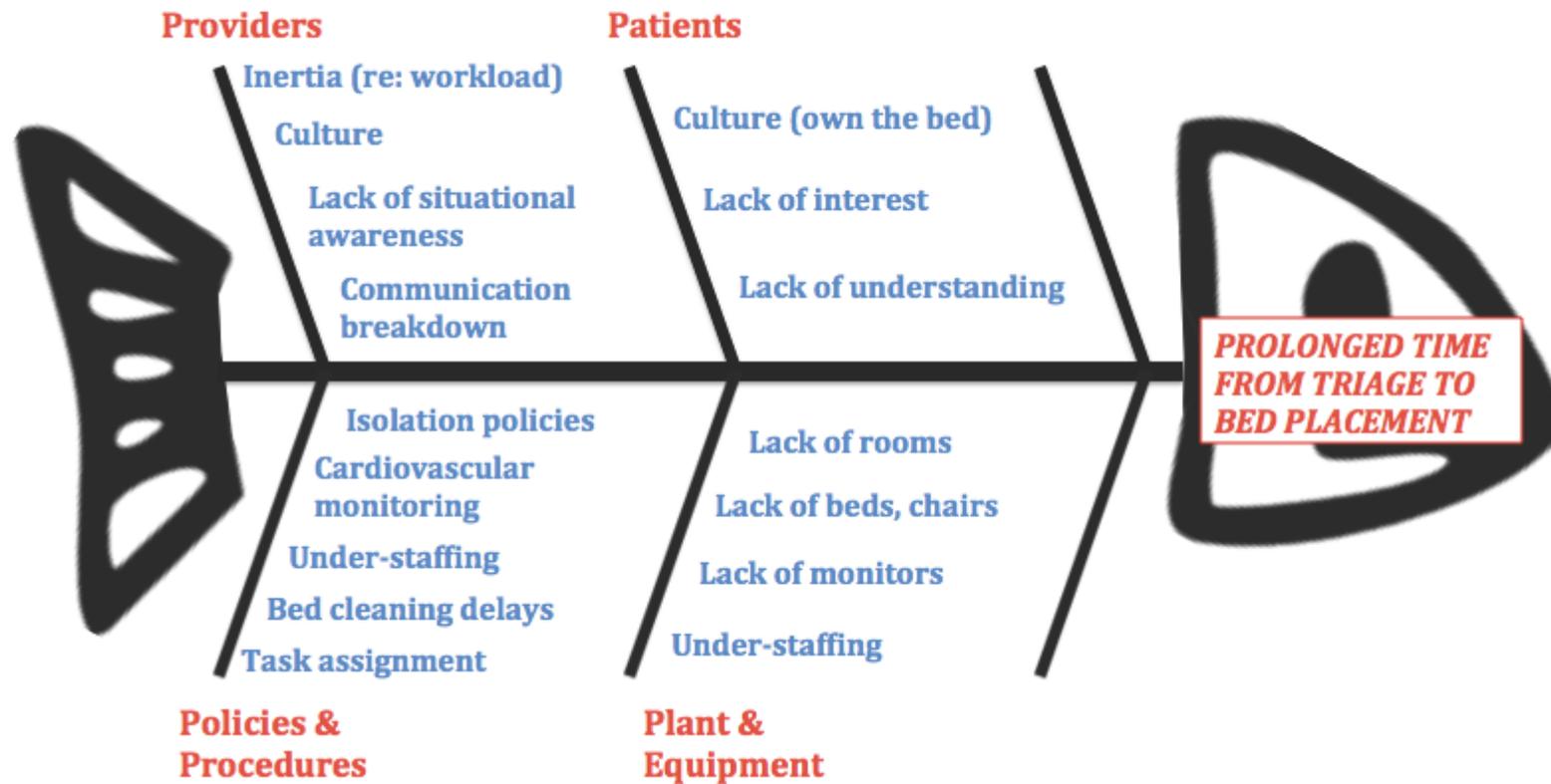
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Appendix 2 – Stakeholder Analysis



Appendix 3 – Ishikawa Analysis (fishbone diagram)



Improving Patient Flow for Acute & Sub-acute ED Patients at TWH DRAFT DRIVER DIAGRAM: Feb 4, 2015

