Who Owns the Timeline? Study

Purpose

This study has been designed to help you observe in real time where and how long the key delays are across the patient journey through the Emergency Department (ED) as well as identifying aspects of the journey that function well. Reducing delays to patients requires attention to models of care and streamlining processes at each step of the ED patient journey. The study provides a unique opportunity to observe the behavioural and cultural aspects of flow that contribute to delays for patients – information that would never be obtained by retrospectively analysing data.

The study also provides a change management opportunity for all stakeholders who participate in the ED patient's care, to observe how patients flow through the ED and the delays they experience. It is recommended that ward staff, inpatient teams, bed management and the executive spend some time participating in the data collection as observers.

Study description and considerations

Best results are achieved by a continuous 48 hour collection, over the busiest days of the week. Most sites have completed the study on a consecutive Sunday and Monday as this allows for observation during the variation in process of weekends, weekdays and after hours.

Template 1 Who owns the timeline, is the manual data collection tool used in the study and lists the time stamps to collect. Some changes can be made to tailor the collection to the logistics of your ED and bed management processes; however these should be kept to a minimum (our experience with this is that too many changes just make the collection unnecessarily complicated). Points to consider might be which tests you want to capture e.g. you may only want to focus on radiology if you are satisfied that pathology functions well, or focus on one type of radiology such as CT. The template can be modified to match you areas of focus.

In order to maintain data integrity, it is imperative to ensure the date and time stamps are correct. Focus efforts on collecting the data points that are highlighted in bold on template 1. An excel spreadsheet (template 2), is provided for data entry following the end of the study period. The data is then analysed and dropped into a presentation to share the findings with the clinicians and managers who contribute to the emergency patient journey. This information will assist in identifying the root causes for the delays and the solutions required for reducing the delays.

To complete the timeline study, you will need staff to assist with the data collection (numbers will depend on size of department and patient presentations) and a data entry person to review the data and complete the excel spreadsheet. By taking the time to ensure the data is accurate; the analysis of the data is then relatively simple. Ensure that as many patients as possible are captured within the 48 hour collection period and focus on observing the timepoints rather than replicating the timepoints in FirstNet.

Ensure that observers are encouraged to write comments on issues with process on each sheet as they observe it as this provides rich information to explain the quantitative data collected. These comments usually cover the behavioural and cultural aspects that contribute to why we do things the way we do and are a valuable part of solution design. For each patient journey the observer should identify all steps where delays occur.

Study set up

1. Engage with the ED and identify a study owner or champion from within the senior ED team. Advise the senior ED team to communicate widely with the ED staff the intention and purpose of the data collection, the dates that this will be undertaken and seek volunteers to participate. This should include patient flow/bed managers, executive and ward NUMs.
2. ***Hint*** *Staff who are engaged in the observation process are more inclined to participate in the outcome*.
3. Identify the 48 hour period that is the busiest for your department to undertake the study. Try and incorporate a weekend day.
4. ***Hint:*** *Starting at 0800 Sunday morning to 0800 Tuesday morning is a good sample period – avoid public holidays and school holidays*
5. Undertake a walk through the department with template 1 and modify the template as necessary – photo copy the required number of sheets.
6. ***Hint:*** *Adding too many extra data points makes the observation more difficult and decreases data quality.*
7. After the walk through of the department, identify the number of staff needed to collect the data for morning, afternoon and night shifts (2 at a minimum for am and pm shifts), allocate and roster accordingly.
8. ***Hint:*** *Even though areas like Fast Track have higher volumes of patients, the lower complexity of these patients makes it easier for the data collectors to follow multiple patients at once. Acute areas of the ED usually require more data collectors.*
9. Identify the person responsible for data entry into the excel spreadsheet following completion of the data collection.
10. Nominate one person as accountable for collecting the data sheets at the end of each shift.

Resources Needed

- Staff to cover data collection for the period (morning evening and night shifts)
- Clipboards
- Pens
- Access to ED IT system (eg. FirstNet)
- A box or folder to put completed sheets in during the period
- Data Collection Template 1 (copies)

On the day

1. Ensure the first shift starts with at least one person who is comfortable with how the study runs and can provide the briefing to the other data collectors
2. Brief the data collectors on the purpose of the study – this can be done prior to the study commencing or at the beginning of each observer shift. This briefing should include: aims of the study, a review of the data collection sheet and what is expected at each time point, the importance of capturing delays, adding qualitative comments and answering any questions.
3. Introduce the data collection team to the staff working in the ED for the shift, explain the purpose of the study and re-iterate that the focus of the study is on systems and processes that support the patient journey and not clinical care
4. Start the data collection with new patients arriving to the ED from 0700 or 0800 onwards
5. Try and track every patient, however focus on quality of data entry not quantity
6. The study is generally easier to manage if observers follow one patient from beginning to end however in larger departments this may not be possible with observers allocated to streams. As the observer is familiar with the data collection sheet this will increase to following several patients at once.
7. Request that data collectors place each completed data collection sheet into the allocated box on completion to reduce losing sheets
8. Hold a 5 minute de-brief at the end of each shift to trouble shoot and discuss lessons learned

Data Analysis

Ensure the data is reviewed before being entered into the excel spreadsheet (template 2). This entails having the date, time and stamps accurate and filling in gaps where required (triage time and code, time left department and next destination). If key timepoints have not been captured and they are known to be generally accurate these can be added from the FirstNet data.

Develop a pareto chart of for all steps where delays occur – this may also be split by admit or discharge stream.

Choose a patient story or case study from the collection period that demonstrates the patient related reasons for change.

Next steps

- ☐ Extract data from the ED IT system (e.g. FirstNet) for the same period as the study to allow a comparison of data accuracy between what is entered in the system and what is observed during the study
- ☐ Make a plan for how to display the data to share within the organisation (template 3). Think about who might need this information and how best to communicate it.
- ☐ Make a plan for presenting the data to the hospital executive and staff across the hospital.
- ☐ Make a plan for the next steps in collecting information on issues and undertaking root cause analysis. Set up short focus groups to discuss.
- ☐ Make a plan for 2 weeks later to undertake the solution design.

Templates

- Data Collection: Who Owns the TimeLine Study_ TEMPLATE No 1
- Data Spreadsheet: Who Owns the TimeLine Study_ TEMPLATE No 2
- Presentation outline: Who Owns the TimeLine Study_ TEMPLATE No 3