Ready, Set, Go!
Implementing an electronic handoff tool to decrease ED length of stay
10.4.2023 | Jennifer Peterburs, BSN, RN, TNS
Background

• According to the CDC, more than 150 million patients are seen in the Emergency Departments (EDs) throughout the United States annually. Of these patients, over 20 million are admitted to either inpatient or observation services in the hospital (2019).

• Increased length of stay in the ED increases patients' risks for pressure ulcers, hospital acquired c-diff infections, and has even been identified as a risk factor for in-hospital cardiac arrest as well as increased mortality in critical care patients. (Han, et al, 2019)
Handoff communication can be defined as “a real time process that involves the transfer of essential patient data from one caregiver to another.” Handoff is considered a high-risk activity as miscommunication can lead to adverse patient events (Freel & Fleharty, 2001).

Patient perception of wait time is highly subjective and is related to communication as well as actual wait time (Spechback et al., 2019).

In 2017, Rush University Medical Center implemented an electronic tool for patient handoff to replace verbal report. Their goal was to improve throughput time from the ED to admission.

- At the start of their study, their assign-to-occupy time averaged 97 minutes. After 1 year, their times decreased to 60 minutes or less.
- Their handoff tool was built into the EMR as a “dot phrase” – a “dot phrase” tool pulls information from the chart and creates a template to be completed in a progress note by the nurse giving report (Sermersheim et al, 2020).

Another study conducted by the Practice Council of Shared Governance at Nebraska Medicine in Omaha used a similar approach. Their goals, however, were not centered around throughput time, but by effectiveness related to patient safety, nurse engagement, and review of the overall design.

- By implementing their handoff tool as well as continuing verbal communication, each factor related to patient safety was improved (Freel & Fleharty 2001).
The purpose of this project is to improve the current handover process by implementing a uniform handover tool in the Emergency Department to give unit report for admitted adult patients to decrease time spent in the ED and increase patient and nursing satisfaction.

This project aimed to improve throughput at our facility from 75 minutes from assignment-to-admission to 60 minutes while maintaining patient safety.
Methods

• Design: pre-test/post-test project evaluation.
• Subjects: Alert and oriented adult patients admitted, either inpatient or observation, to the hospital from the ED.
• Setting: Advocate Sherman Hospital ED and 2a/b, 4a/b, 5a/b, 6.
• Tools utilized:
  • SBAR “dot phrase”
  • Education for RNs related to the use of electronic handoff tools
  • Modified Nurse Leader Rounding tool
  • Likert scale for nursing satisfaction with current handoff process
  • Slicer Dicer (Epic reporting)
Implementation Plan

- SBAR handoff “dot phrase” template was created in Epic
  - A SBAR handoff template was created in Epic which included patient information automatically pulled from the chart as well as information to be completed by the ED RN. This “dot phrase” tool was then shared with all nurses within the ED and education was disseminated to all nurses working on units involved in the project.

- The “dot phrase” was then shared with all ED nurses to allow them to use it in a handoff progress note.

- Education was completed for ED RNs as well as RNs on the included units and an SBAR was sent out to all RNs outlining the new process for calling report.

- Meetings continued with The ED-Inpatient Throughput Committee with representation from units involved in the project as well as in the ED.

- After using the new process for several weeks, patients were chosen at random to participate in feedback using the modified Nurse Leader Rounding tool.

- These rounding tools were collected on a total of 50 patients over the course of two weeks.
New Questions Leader Rounding Tool: Did you feel that you had to wait a long time to move from the Emergency Department to your room?

If yes, do you feel like your nurses and doctors kept you well informed and comfortable during your wait?
Education provided to ED as well as RNs on the 2\textsuperscript{nd}, 4\textsuperscript{th}, 5\textsuperscript{th}, and 6\textsuperscript{th} floors who receive admissions.

- Video instruction (ED nurses) with post video knowledge verification
- SBAR sent to all nurses
- ED to Inpatient Throughput Committee
- Hands-on education and assistance using “champions”
Outcomes

Combined Medical/Surgical Departments

<table>
<thead>
<tr>
<th>Time Range</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 59 Minutes</td>
<td>112</td>
<td>196</td>
</tr>
<tr>
<td>60-75 Minutes</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>≥ 76 Minutes</td>
<td>144</td>
<td>91</td>
</tr>
</tbody>
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Outcomes: Time to Transfer

• In March of 2022, 34% of patients admitted were moved out of the ED in 59 minutes or less to all units included in the project.

• Since implantation of education and the SBAR phrase, 56% of patients admitted were moved to their beds in 59 minutes or less.

• Data clearly indicates wait time for admission significantly decreased.

• Since implementation of this project, a new committee was formed to continue to identify barriers and improve throughput times.

  • July data shows that 64% of patients admitted were moved to their beds in 59 minutes or less.
Outcomes: Patient Satisfaction

• Of the 50 patients surveyed regarding their stay in the ED,
  • a majority, 30 (60%) felt that the nurses and doctors took time to communicate the plan of care. Of those 30 patients, 15 (50%) did not feel they waited a long time to be transferred to an inpatient bed while 14 (47%) felt they waited a long time.
  • Similarly, of the 20 (40%) of those who felt providers did not communicate well, 10 (50%) stayed less than 59 minutes and 8 (40%) stayed 60-119 minutes.

• There was a strong correlation of .75 between the communication and someone feeling comfortable during their wait in the ED

• Perception of wait time in the ED was found to be subjective.
Nursing satisfaction showed most of the negative feedback related to the SBAR note. Common themes in the comments include:

- SBAR tool is not completed at time of report.
- It is difficult to reach the inpatient nurse to give report.
- The SBAR tool can be time consuming and isn’t being read by the receiving nurse.
Discussion: Implications

• The handover process was successful at reducing ED time to our goal of less than 60 minutes as seen in the literature (Sermershein et al, 2020).

• Wait time in the ED and quality of communication with patients were important determinants of patient satisfaction and should be carefully considered according to Spechbach (2019). However, subjective perceptions of wait time varied widely.

• A limitation of this project includes that the interpretation of some questions included in the rounding form may have varied.

• Research supports the use of both the electronic tool and verbal aspects of handoff to improve patient handover. Continuous revisions and collaboration are key to effective and safe handover processes.

• Throughput Committee reevaluated and reimagined the SBAR note that increased nursing satisfaction and was key to improving throughput time.
References


What questions can I answer?