Using Electronic Nursing Handoff to Improve Timeliness of Clinical Information Exchange and Reduce Boarding Time for Admitted Patients in the Emergency Department

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Background
ED boarding is a function of system inefficiencies which can cause patient outflow obstruction and is associated with inferior patient outcomes. Current average nursing handoff time between ED and Medicine nursing units is 50 to 60 minutes. Waiting to give verbal report contributes to 8% of total boarding time and 14% of total process time. Boarding patients in the ED can heighten risk for higher morbidity and mortality, and longer length of stay.

Intervention
- Validated eHandoff workflow with end-users
- Built eHandoff documentation in EPIC
- Educated staff with Fast Facts & algorithm
  - Perform chart review
  - Document completion of review process
  - Pend the bed
  - Review ED track board for status
- Ongoing review of safety events and process issues

Methods
- Formed Steering Group
- Reviewed current ED boarding times
- Developed E-handoff
- Developed dashboard and safety metrics
- Developed education
- Presented to Strategic Professional Practice Coordinating Council (SPPCC)

Aims
The purpose of this pilot was to reduce nursing hand-off time to less than 30 minutes by using an electronic handoff process.
Participants will be able to:
- Identify barriers to patient outflow
- Identify solutions to decrease ED boarding time and improve efficiency
- Identify patient safety risks associated with use of eHandoff

Results
Nursing E-Handoff Trend – JHH MEY8
(Unit Assigned to e-Handoff Acknowledged in minutes)

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<th>Pre-Intervention</th>
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Nursing E-Handoff Trend – JHH Z12E
(Unit Assigned to e-Handoff Acknowledged in minutes)

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Results Continued - Phase II

Lessons Learned
- The importance of:
  - Timeliness of chart review & documentation by the inpatient (IP) RN
  - Timeliness of patient transport out of the ED
  - Need for a standardized tool in EPIC
  - Completeness of documentation by ED staff
  - Consistency in pending the bed
  - Consistency in reviewing ED track board for chart review icon
  - Working together across departments and including all stakeholders

Next Steps
- Determine nursing satisfaction with the eHandoff process
- Develop standardized critical content to be communicated during a hand-off
- Implement a harmonized tool in Epic that includes minimum standard elements to optimize eHandoff process
- Broaden scope of use

References
Rabin, E., Kocher, K., McClelland, M., Pines, J., Hwang, U., Rathlev, N., ... & Weber, E. (2012). Solutions to emergency department 'boarding' and crowding are underused and may need to be legislated. Health Affairs, 31(8), 1757-1766.
