An ED to PICU Transfer of Care Process to Ensure Safe Starts in PICU

An Evidence Based Practice Initiative

Maia Routly MA BSN RN CPN EBP-CH

Disclosures/Participants

I have no disclosures.

Project participants:

Maia Routly MA BSN RN CPN EBP-C
Amy Thomas BSN RN CCRN NPD-BC
Lindsay Ebbinger BSN RN CCRN
Erin Miller RN, CPEN
Kelly Chalmers BSN, RN CPEN
Jennifer Macias MSN, RN, CPN
Margaret Gettis DNP, CPNP-PC, EBP-C

Background: Problem - Transfer of Care

Transportation from one care area to another is a critical point of vulnerability for hospitalized patients.

60-80% of serious medical errors are attributed to miscommunications during the transfer process

The Pediatric Emergency Department - fast paced, complex environment presents additional challenges to the transfer of care process

Background: Scottish Rite Transfer of Care

Lack	Lack of standardized transfer of care **process** between ED and PICU
Lack	Lack of standardized **patient information** communicated from the ED to the PICU
Lack	Lack of clear understanding of what should take place during the **Safe Start** process when handing over patient care from the ED nurse to the PICU nurse.

Consequence:

Event of crucial patient information not communicated to PICU by ED nurses.

Intervention:

Formed a workgroup of nurses representing the ED, PICU, Trauma Services and hospital Nurse Scientist to address the problem.

Background: Setting/Sample

Busy, urban Level II Pediatric Trauma Center

ED with >100,000 patient visits per year

>1200 admitted trauma patients per year

~100 trauma patients admitted to the PICU per year

Convenience samples of ED/PICU nurses

Total 180 PICU and 100 ED nurses invited to participate

Pre-implementation survey 51 PICU respondents, 27 ED respondents

Post-implementation survey 40 PICU respondents, 10 ED respondents

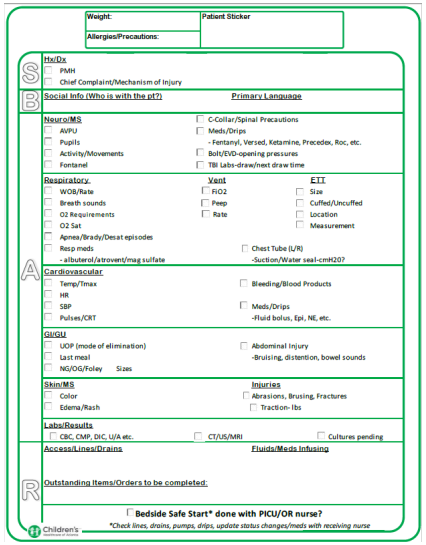
Transfer of care process was tracked for both trauma and medical PICU admissions

Procedures: Evidence-based practice

Workgroup collaborated with Nurse Scientist to conduct a literature review	PICO Question	Recommendations
• Literature summary table constructed • Information synthesized • Recommendations developed	• For nurses caring for critically ill trauma patients, what are best practices for transfer of care compared to current practice and how does it impact nurse perception and ONS reporting	• Standardized transfer of care process • Standardized transfer of care reporting tool • Clear Safe Start procedure

Procedures: Implementation

- Standardized transfer of care SBAR reporting tool created based on Building Block theory
- Clearly defined bedside Safe Start process
- Pre-implementation nurse perception survey
- Education to ED and PICU nurses
- Tracking x7 months, >400 transfers, Post-implementation nurse perception survey



Weight:
Allergies/Precautions:
Patient Sticker

S
Hx/Dx
PMH
Chief Complaint/Mechanism of Injury

B
Social Info (Who is with the pt?)
Primary Language

A
Neuro/MS
AVPU
Pupils
Activity/Movements
Fontanel
C-Collar/Spinal Precautions
Meds/Drips
- Fentanyl, Versed, Ketamine, Precedex, Roc, etc.
Bolt/EVD-opening pressures
TBI Labs-draw/next draw time

Respiratory
WOB/Rate
Breath sounds
O2 Requirements
O2 Sat
Apnea/Brady/Desat episodes
Resp meds
- albuterol/atrovent/mag sulfate
Vent
FiO2
Peep
Rate
ETT
Size
Cuffed/Uncuffed
Location
Measurement
Chest Tube (L/R)
-Suction/Water seal-cmH20?

Cardiovascular
Temp/Tmax
HR
SBP
Pulses/CRT
Bleeding/Blood Products
Meds/Drips
-Fluid bolus, Epi, NE, etc.

GI/GU
UOP (mode of elimination)
Last meal
NG/OG/Foley Sizes
Abdominal Injury
-Bruising, distention, bowel sounds

Skin/MS
Color
Edema/Rash
Injuries
Abrasions, Bruising, Fractures
Traction- lbs

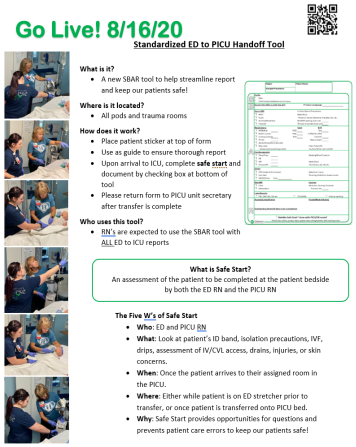
Labs/Results
CBC, CMP, DIC, U/A etc.
CT/US/MRI
Cultures pending

Access/Lines/Drains
Fluids/Meds Infusing

R
Outstanding Items/Orders to be completed:

Bedside Safe Start* done with PICU/OR nurse?
*Check lines, drains, pumps, drips, update status changes/meds with receiving nurse

Children's



Go Live! 8/16/20
Standardized ED to PICU Handoff Tool

What is it?
- A new SBAR tool to help streamline report and keep our patients safe!

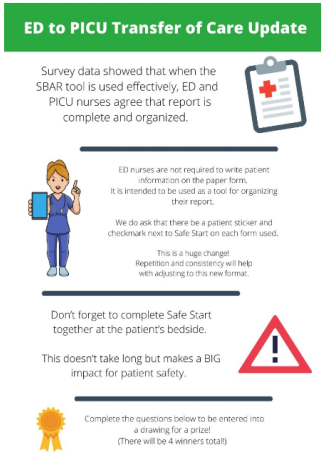
Where is it located?
- All pods and trauma rooms

How does it work?
- Place patient sticker at top of form
- Use as guide to ensure thorough report
- Upon arrival to ICU, complete **safe start** and document by checking box at bottom of tool
- Please return form to PICU unit secretary after transfer is complete

Who uses this tool?
- RN's are expected to use the SBAR tool with ALL ED to ICU reports

What is Safe Start?
An assessment of the patient to be completed at the patient bedside by both the ED RN and the PICU RN

The Five W's of Safe Start
- **Who:** ED and PICU RN
- **What:** Look at patient's ID band, isolation precautions, IVF, drips, assessment of IV/CVL access, drains, injuries, or skin concerns.
- **When:** Once the patient arrives to their assigned room in the PICU.
- **Where:** Either while patient is on ED stretcher prior to transfer, or once patient is transferred onto PICU bed.
- **Why:** Safe Start provides opportunities for questions and prevents patient care errors to keep our patients safe!



ED to PICU Transfer of Care Update

Survey data showed that when the SBAR tool is used effectively, ED and PICU nurses agree that report is complete and organized.

ED nurses are not required to write patient information on the paper form. It is intended to be used as a tool for organizing their report.

We do ask that there be a patient sticker and checkmark next to Safe Start on each form used.

This is a huge change! Repetition and consistency will help with adjusting to this new format.

Don't forget to complete Safe Start together at the patient's bedside.

This doesn't take long but makes a BIG impact for patient safety.

Complete the questions below to be entered into a drawing for a prize! (There will be 4 winners total!)

Implementation: Building Block theory:

Building Block Information Transfer Theory:

Nurses working in different areas of the hospital require different blocks of information to adequately care for patients.

It is the responsibility of the nurse handing off the patient to acquire the information necessary for the receiving nurse to adequately care for the patient.

Information blocks

Implementation: Building Block theory:

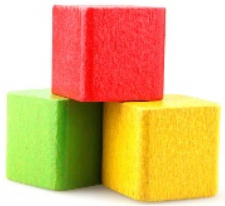
ED nurses may need 2-3 blocks of patient information to adequately care for a critically ill trauma patient

Commonly incomplete patient information in ED

Complete patient information sets are foundational for pediatric critical care decision making.

The Pediatric Critical Care nurse may need 9-10 blocks of patient information to adequately care for a critically ill trauma patient.

Information blocks



Implementation: Building Block theory:

- SBAR form created based on the information needed by the receiving PICU nurse
- Form organized onto systems assessment vs. timeline format
- Form used as guide – ED nurses not required to fill out

Weight: | Patient Sticker

Allergies/Precautions:

S

Hx/Dx
- ☐ PMH
- ☐ Chief Complaint/Mechanism of Injury

B

Social Info (Who is with the pt?) | Primary Language

A

Neuro/MS
- ☐ AVPU
- ☐ Pupils
- ☐ Activity/Movements
- ☐ Fontanel
- ☐ C-Collar/Spinal Precautions
- ☐ Meds/Drips
  - Fentanyl, Versed, Ketamine, Precedex, Roc, etc.
- ☐ Bolt/EVD-opening pressures
- ☐ TBI Labs-draw/next draw time

Respiratory
- ☐ WOB/Rate
- ☐ Breath sounds
- ☐ O2 Requirements
- ☐ O2 Sat
- ☐ Apnea/Brady/Desat episodes
- ☐ Resp meds
  - albuterol/atrovent/mag sulfate

Vent
- ☐ FiO2
- ☐ Peep
- ☐ Rate

ETT
- ☐ Size
- ☐ Cuffed/Uncuffed
- ☐ Location
- ☐ Measurement

- ☐ Chest Tube (L/R)
  - Suction/Water seal-cmH20?

Cardiovascular
- ☐ Temp/Tmax
- ☐ HR
- ☐ SBP
- ☐ Pulses/CRT
- ☐ Bleeding/Blood Products
- ☐ Meds/Drips
  - Fluid bolus, Epi, NE, etc.

GI/GU
- ☐ UOP (mode of elimination)
- ☐ Last meal
- ☐ NG/OG/Foley Sizes
- ☐ Abdominal Injury
  - Bruising, distention, bowel sounds

Skin/MS
- ☐ Color
- ☐ Edema/Rash

Injuries
- ☐ Abrasions, Brusing, Fractures
- ☐ Traction- lbs

Labs/Results
- ☐ CBC, CMP, DIC, U/A etc.
- ☐ CT/US/MRI
- ☐ Cultures pending

R

Access/Lines/Drains | Fluids/Meds Infusing

Outstanding Items/Orders to be completed:

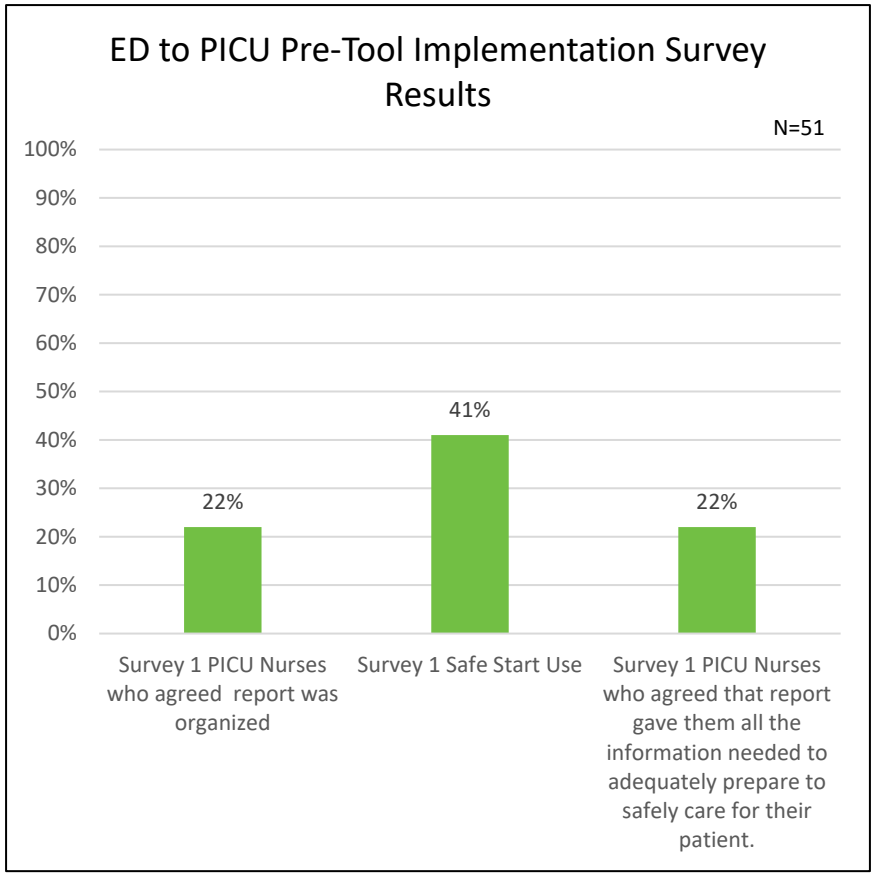
☐ **Bedside Safe Start* done with PICU/OR nurse?**

**Check lines, drains, pumps, drips, update status changes/meds with receiving nurse*

Children's Healthcare of Atlanta

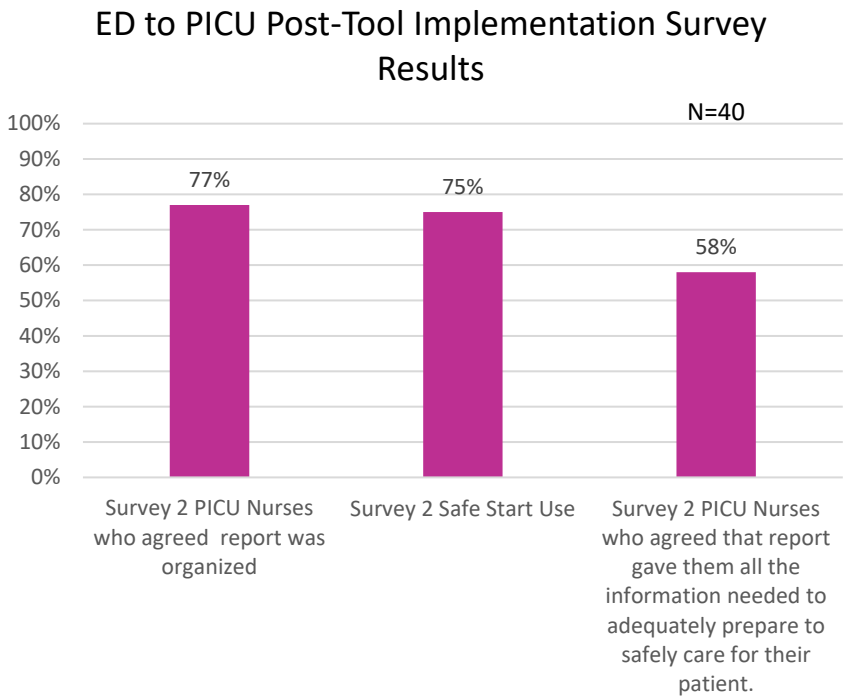
Results: Pre-implementation Survey

- Pre-implementation PICU nurse perception



Results: Post-implementation Survey

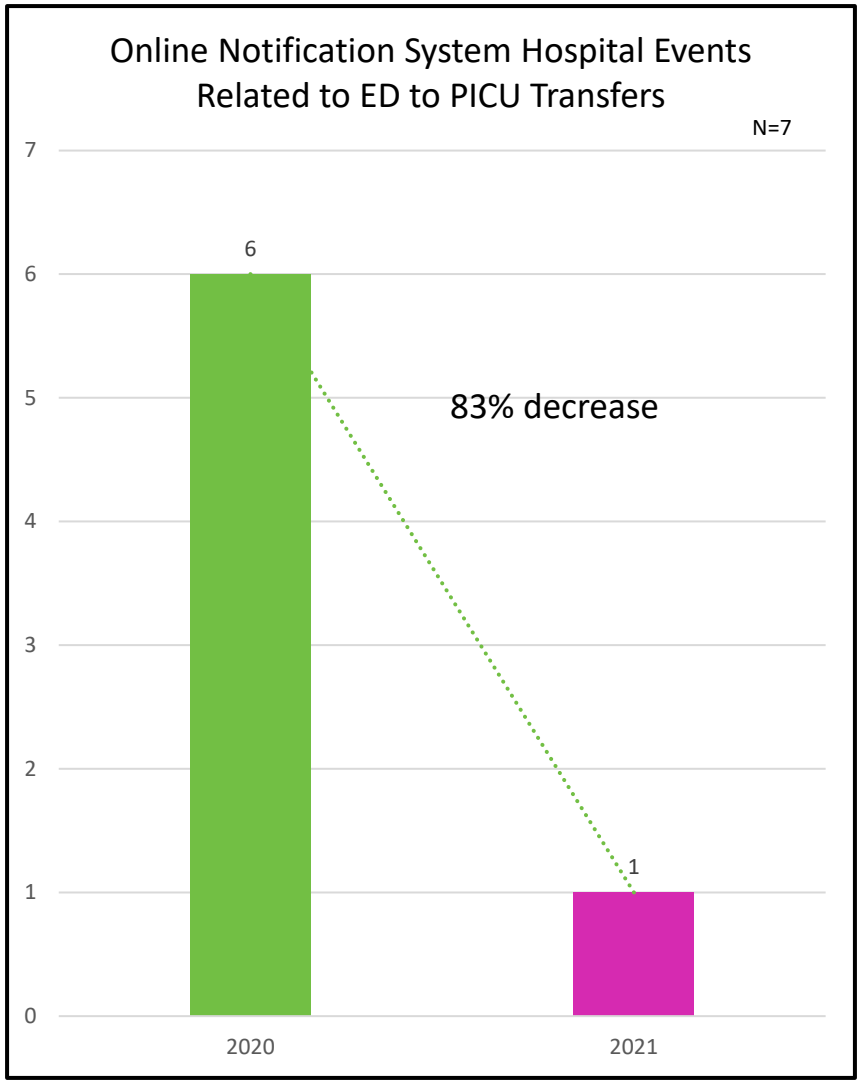
- Post-implementation PICU nurse perception
  - PICU nurses who agreed report was organized increased from 22% to 77%
  - Increased use of Safe Start process from 41% to 75%
  - PICU nurses who agreed they had adequate information to care for their patient increased from 22% to 58%



No significant change in ED nurse perception between pre- and post-implementation surveys

Results: Post-implementation

- Online Notification System (ONS) Hospital Events
  - 2020
    - Six ONS events filed related to ED to PICU transfer of care issues
  - 2021
    - One ONS event filed related to ED to PICU transfer of care issues
  - Represents an 83% decrease in Hospital Events reported



Conclusions: Implications for Practice

Evidence based project demonstrated implementation of a standardized transfer of care tool and Safe Start process between the ED and PICU:

- Increases PICU nurse perceptions that transfer of care is organized
- Increases PICU nurse perceptions that all information necessary to care for the patient was communicated

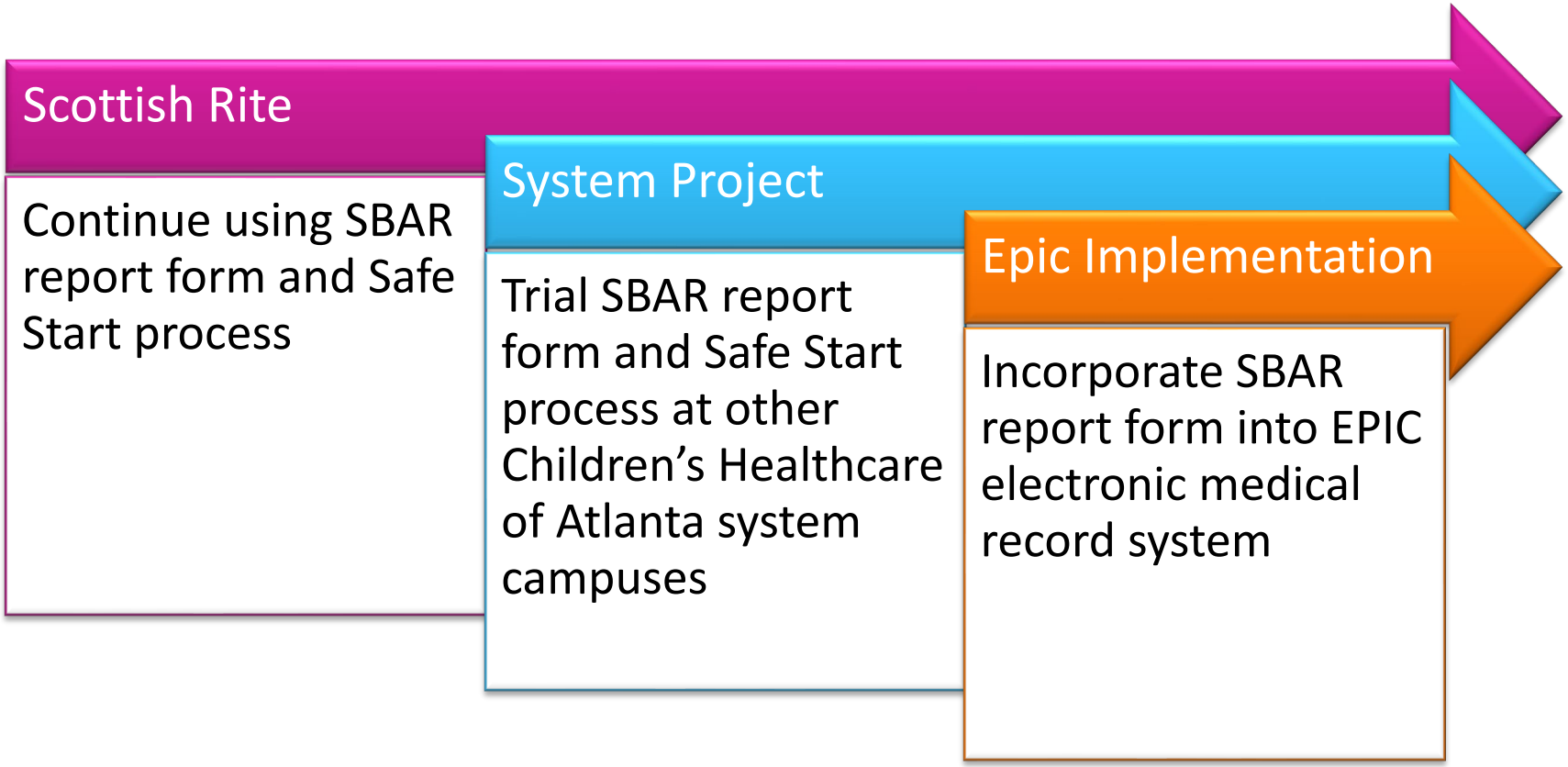
It was beneficial to tailor the SBAR tool and Safe Start process based on scientific evidence as well as workgroup feedback

Nurse education prior to tool implementation facilitated a smooth roll-out

Standardization of handoff tools across other units should be considered with particular attention given to:

- Information the receiving unit deems necessary
- Format easily assimilated into patient care

Next steps:


Scottish Rite
Continue using SBAR report form and Safe Start process
System Project
Trial SBAR report form and Safe Start process at other Children's Healthcare of Atlanta system campuses
Epic Implementation
Incorporate SBAR report form into EPIC electronic medical record system

References

- Alimenti, D., Buydos, S., Cuncliffe, L., Hunt, A. (2019). Improving perceptions of patient safety through standardizing handoffs from the emergency department to the inpatient setting: a systematic review. Journal of the American Association of Nurse Practitioners, 31(6), 354-362
- American Academy of Pediatrics. (2016). Handoffs: Transitions of care for children in the emergency department. Pediatrics, 138(5), 1-12. doi:10.1054/pds.2016-2680
- Bagnasco, A ., Costa, A., Catania, G., Zanini, M., Ghirotto, L., Timmons, F., Sasso, L. (2019). Improving the quality of communication during handover in a pediatric emergency department: a qualitative pilot study. Journal Preventative Medical Hygiene, 60, e219-e225. doi:10.15167/2421-4284/jpmh2019.60.3.1042
- Braaf, S., Rixon, S., Williams, A., Liew, D., Manias, E. (2015). Medication Communication during handover interactions in specialty practice settings. Journal of Clinical Nursing, 24, 2859-2869. doi:10.1111/jocn.12894
- Bukoh, M. X., Siah, C. R. (2020). A systematic review on the structured handover interventions between nurses in improving patient safety outcomes. Journal of Nursing Management, 00, 1-11. doi:10.1111/jonm.12936
- Cross, R., Considine, J., Currey, J. (2019). Nursing Handover of vital signs at the transition of care from the emergency department to the inpatient ward: an integrative review. Journal of Clinical Nursing, 1010-1021. doi:10.1111/jocn.14679
- Drach-Zahavy, A., Hadid, N. (2014). Nursing handovers as resilient points of care: linking handover strategies to treatment errors in the patient care in the following shift. Journal of Advanced Nursing, 1135-1145
- Jarden, R.J., Quirke, S. (2010). Improving safety and documentation in intrahospital transport: development of an intrahospital transport tool for critically ill patients. Intensive and Critical Care Nursing, 26, 101-107. doi:10.1016/j.iccn.2009.12.007
- Johnson, A., Guirguis, E., Grace, Y. (2015). Preventing medication errors in transitions of care: a patient case approach. Journal of the American Pharmacists Association, 55(2), e264-e276.
- Johnson, M., Sanchez, P., Zheng, C. (2016). Reducing patient clinical managment errors using structured content and electronic handover. Journal of Nursing Care Quality, 31(3), 245-253. doi:10.1097/NCQ.0000000000000167
- Keebler, J. R., Lazzara, E. H., Patzer, B. S., Palmer, E. M., Plummer, J. P., Smith, D. C., Lew, V., Fouquest, S., Chan, Y. R., Riss, R. (2016). Meta-Analysis of the effects of standardized handoff protocols on patient, provider, and organizational outcomes. Human Factors, 58(8), 1187-1205. doi:10.1177/0018720816672309

References - continued

- Manataki, A., Fleuriot, J., Papapanagiotou, P. (2017). A workflow-driven formal methods approach to the generation of structured checklists for intrahospital patient transfers. Journal of Biomedical and Health Informatics, 21(4), 1156-1162. doi:10.1109/jbhi.2016.2579881
- Nasarawanji, M. F., Badir, A., Gurses, A. P. (n.d.). Standardizing Handoff Communication. Journal of Nursing Care Quality, 31(3), 238-244. doi:10.1097/NCQ.0000000000000174
- Nugus, P., McCarthy, S., Holdgate, A., Braithewaite, J., Schoenmakers, A., Wagner, C. (2017). Packaging patients and handing them over: communication context and persuasion in the emergency department. Annals of Emergency Medicine, 69(2), 210-217. doi:10.1016/j.annemergmed.2016.08.456
- Padgett, T. M. (2018). Improving nurses' communication during patient transfer: a pilot study. The Journal of Continuing Education in Nursing, 49(8), 378-384. doi:10.3928/00220124-2080718-09
- Patton, L. J., Tidwell, J. D., Falder-Saeed, K. L., Young, V. B., Lewis, B. D., Binder, J. F. (2017). Ensuring safe transfer of pediatric patients: a quality improvement project to standardize handoff communication. Journal of Pediatric Nursing, 34, 44-52. doi:10.1016/j.pedn.2017.01.004
- Shahian, D. M., McEachern, K., Rossi, L., Chisari, R. G., Mort, E. (2017). Large-scale implementation of the I-PASS handover system at an academic medical centre. BMJ Quality Safety, 26, 760-770. doi:10.1136/bmjqs-2016-006382
- Sonis, J. D., Rajas, A. S., White, B. A., Lucier, D. J., Strauss, J. L.,. (2018). Improving emergency department to hospital medicine transfer of care through electronic pass-off. American Journal of Emergency Medicine, 36, 2122-2123.
- Starmer, A J., Schnock, K. O., Lyons, A., Hehn, R. S., Graham, D. A., Keohane, C., Landrigan, C. P. (2017). Effects of the I-PASS Nursing handoff bundle on communication quality and workflow. BMJ Quality Safety, 26, 949-957. doi:10.1136/bmjqs-2016-006224
- Yu, Z., Zhang, Y., Gu, Y., Xu, X., McArthur, A. (2017). Peditric clinical handover: a best practice implementation project. Joanna Briggs Institute of Systematic Reviews and Implementation Reports, 2585-2595. doi:10.11124/JBISRIR-2016-003296

Questions: