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### INTRODUCTION

- At our level-1 pediatric trauma center, accurate documentation of patient assessment is an integral part of the care we provide.
- In 2013, electronic trauma documentation was implemented in the emergency department.
- A review of documentation accuracy indicated inconsistencies between the charting and the care that was provided.
- We decided to return to paper documentation until a long-term solution was developed.
- A multi-disciplinary team convened to re-design the previously implemented electronic trauma documentation.
- This team created a more comprehensive education plan that consisted of a mandatory electronic trauma documentation class using simulation to promote a real-time learning environment.



### **OBJECTIVES**

- Explain the benefit of using an electronic medical record versus paper charting for trauma patients
- Recognize the impact of having end users involved in the re-design and implementation process
- Develop education that reaches multiple learning styles to provide better access to information for learners
- Identify ongoing education plan to sustain new trauma narrator users in the future

### **CASE PRESENTATION**

- Our team was committed to returning to electronic trauma documentation.
- Electronic charting increases patient safety and access to care and streamlines care across providers; however, it is difficult to perform electronic charting in the stressful, fast-paced, trauma environment (Wurster, Groner, & Hoffman, 2012).
- The simulation environment provides realistic training, without endangering patient safety, while mimicking the factors involved in a real-world setting (Wilbanks, Watss, & Epps, 2018).
- A team was brought together to re-design the previously implemented electronic trauma documentation and create a more comprehensive education plan.
- The education plan consisted of an electronic trauma documentation class, transcripts, simulation using videos, and super-users.
- This robust education plan was designed to accommodate multiple learning styles, to provide access of information for all individual learning needs, and to gain buy-in for this transition.

# **Round Two: Re-Implementation of Electronic Trauma Documentation Using Simulation**

# **EDUCATION PLAN**

- The electronic trauma documentation class included:
- One hour of didactic learning, giving users an in-depth introduction to the electronic trauma documentation
- One hour of real-time documentation using simulation videos
- Five written trauma transcripts were created for self-paced learning.
- Each nurse could practice using these transcripts in a simulated electronic medical record environment.
- Using the simulation center, trauma nurses created videos to replicate real-life scenarios.
- Simulations spanned from common scenarios to difficult-to-document, lowfrequency/high-risk scenarios.
- Practicing in the simulation environment allowed learners to document in real time, supporting that with practice, electronic documentation could be done faster and more accurately than on paper (Wurster, Groner, & Hoffman, 2012).
- Super-users were identified and received an additional two-hour electronic trauma documentation class.
- Using simulation, super-users received additional education to validate their expertise in trauma documentation.
- During the implementation, super-users charted on paper while the end-user documented in the electronic medical record simultaneously.
- Upon completion of charting, the super-user compared the paper and electronic documentation to confirm accuracy and to highlight potential learning opportunities in the electronic trauma flow sheet.

# DISCUSSION

- Research shows that deficiencies in documentation are related to the design of the electronic trauma flow sheet and human error (McLean, Elwell & DePiero, 2013).
- Redesign of the electronic trauma flowsheet to increase the users' effectiveness of charting is supported by research.
- Trauma Narrator was formatted to be in line with the systematic approach of the trauma assessment.
- The most commonly used interventions and medications were placed specifically to increase visibility and ease of charting.
- Simulation learning experiences have been demonstrated to be as effective as traditional clinical experiences (Badowski, Horsley, Rossler, Mariani, & Gonzalez, 2018).

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- on a regular basis.
- information for learners.



#### Continuing education

- record environment.
- ongoing education to new users.
- Validate effectiveness of documentation

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### LESSONS LEARNED

Design is important for ease of use (McLean, Elwell & DePiero, 2013). • Ensure hardware meets the demands of the end-user by increasing the monitor size to assure that the flowsheet was as visible as possible. Ongoing practice is important for nurses who are not members of trauma team

Education should reach multiple learning styles to provide better access to

## CONCLUSIONS

• Transcripts provide an ongoing ability to practice in the electronic medical

• Simulation videos were converted to audio files and uploaded on an internal learning environment to provide continued support for end-users and provide

• Quality control audits are performed after every trauma activation.

• Timely feedback is provided to all documenting nurses.

• This multi-modality education plan may be useful to other level-1 trauma centers to support the design and implementation of electronic trauma documentation.

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