Rationale
Simulation plays a significant role in providing safe medical education allowing learners to practice a procedure on a model before performing the procedure at the bedside.

Just in Time Training (JITT) is an educational strategy that has been adapted to medical training of high risk emergency procedures.

Utilizing JITT, this project aimed to:
• provide a resource to meet the skill gap at the time the skill is needed
• deliver high impact educational content in a short amount of time
• practice and review prior to entering a patient's room for a procedure
• improve clinical performance of procedural skills.

Description
Emergency Skills JITT began as a procedure simulation cart with five skills. Each shelf has a task trainer and related equipment for five skills:
• Central venous catheter placement
• Laceration repair
• Orotracheal intubation
• Ultrasound-guided IV line placement
• Lumbar puncture.

The concept was introduced as a part the emergency medicine “teaching resident” rotation.

The cart model was expanded and relocated to the resident charting room to stationary shelves, and an on-site “emergency medicine skills practice area” was created.
• Added Skills with expansion:
  • Intraosseus catheter placement
  • Transvenous pacemaker placement
• Each task trainer can be checked out by students or residents guided by the teaching resident.

Evaluation Plan
A detailed log book is present in the designated emergency skills area with log sheets that keep track of:
• what skill required just in time training
• what learner level required this training
• how long each skill box was used

Our ultimate goal is for each teaching resident to perform direct observational scoring on a control group and intervention group with the following steps:
• Learners will review the scoring sheet that outlines critical tasks for each procedure prior to starting the procedure
• The intervention group learner will then utilize the task trainer until comfortable with the procedure.
• The control group will be evaluated without any use of the task trainer.
• The resident will score the learner in both groups utilizing a predetermined scoring sheet based on the critical tasks.

Impact
We believe that the emergency skills task trainer shelf model is a sustainable tool that can provide hands-on, real-time practice during a clinical shift. We hypothesize that this form of “just-in-time” training will enhance learner confidence and result in improved skills performance and clinical efficiency with common Emergency Department procedures. Furthermore, JITT can translate to many other “high-stakes” clinical settings that provide clinical training to novice learners.

Acknowledgements
ECU BSOM Clinical Simulation Center, Adam Saucerman, MD