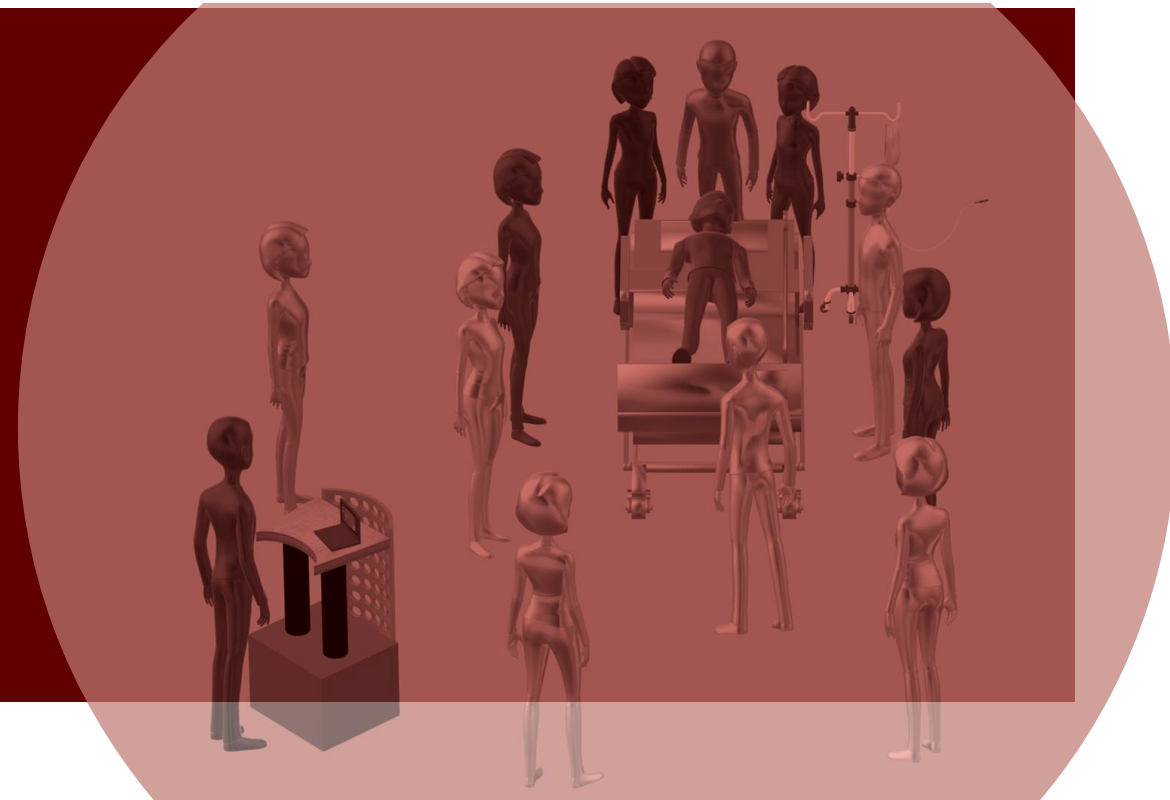

Assessment Of Need For Trauma Education For Pediatric Residents In The Emergency Department, And Creation Of A Video Module In Response

ANNE WHITEHEAD MD, BRIAN PHILLIPS MD, LINDSEY HAUT MD



THE PROBLEM

- Resident education in pediatric resuscitation is particularly challenging
 - Healthy Population
 - Less access to procedural and leadership opportunities
 - Learner competition



Guilfoyle, et al, Chen et al, Mittiga et al

THE PROBLEM IN OUR EMERGENCY DEPARTMENT: TRAUMA

Anecdotal concerns:

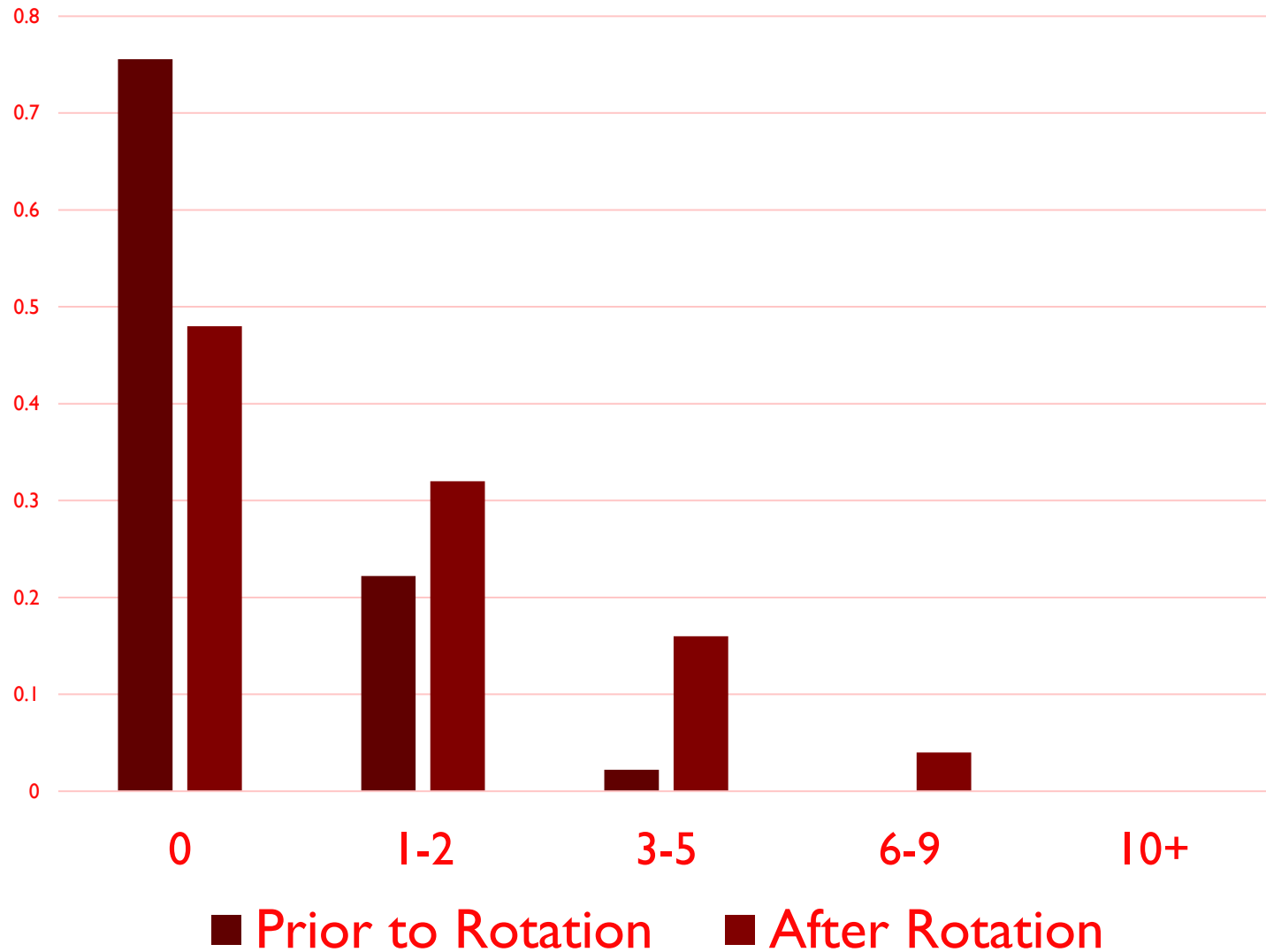
- Resident rotation liaisons
- Nursing colleagues
- Surgery colleagues



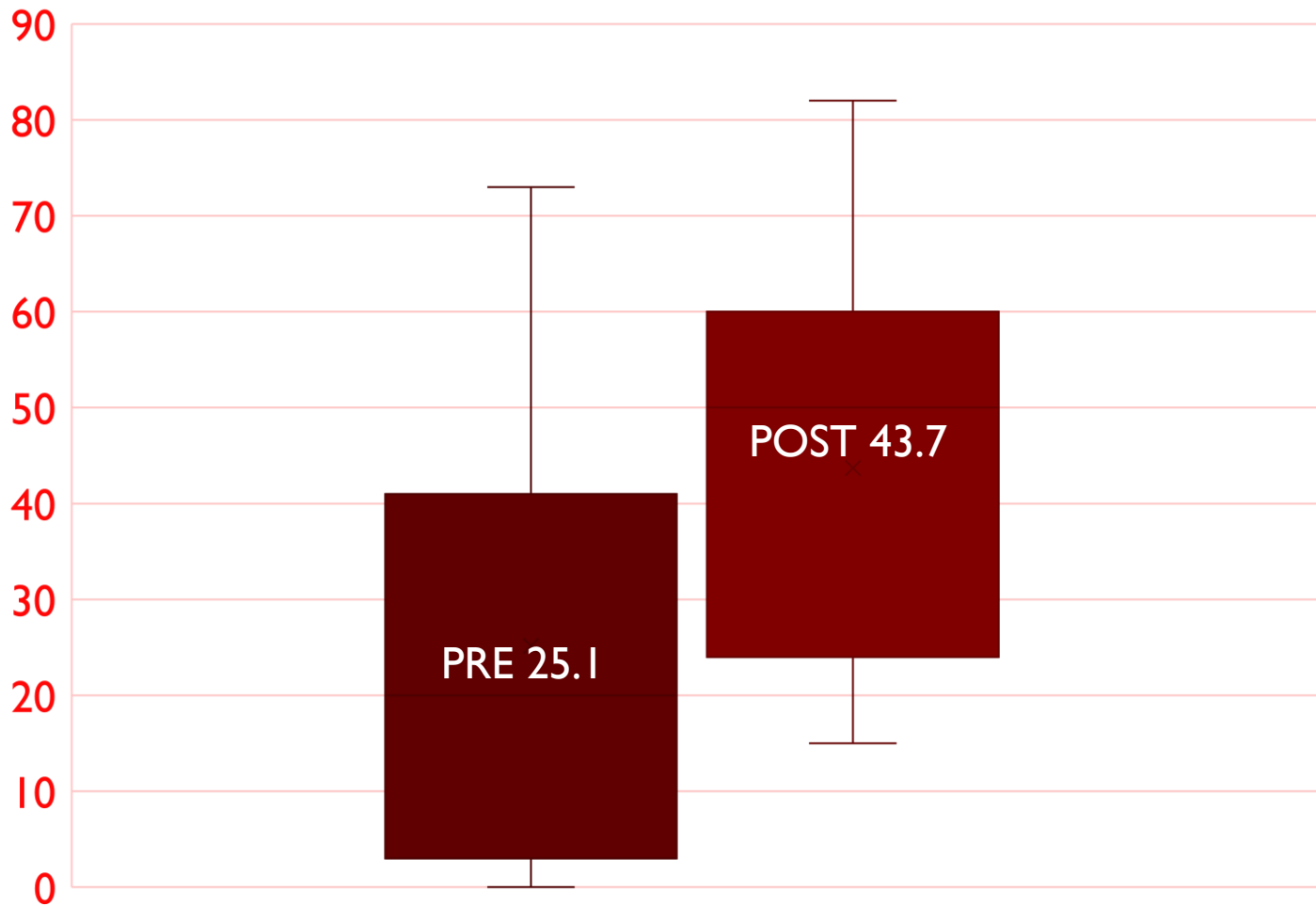
INVESTIGATING THE PROBLEM

- Surveys distributed to residents via email link
 - November 2018-2019
 - Voluntary, anonymous
 - PRE-Rotation: $N=55$ out of $108 = 50.9\%$
 - POST-Rotation: $N=31$ of $108 = 28.7\%$

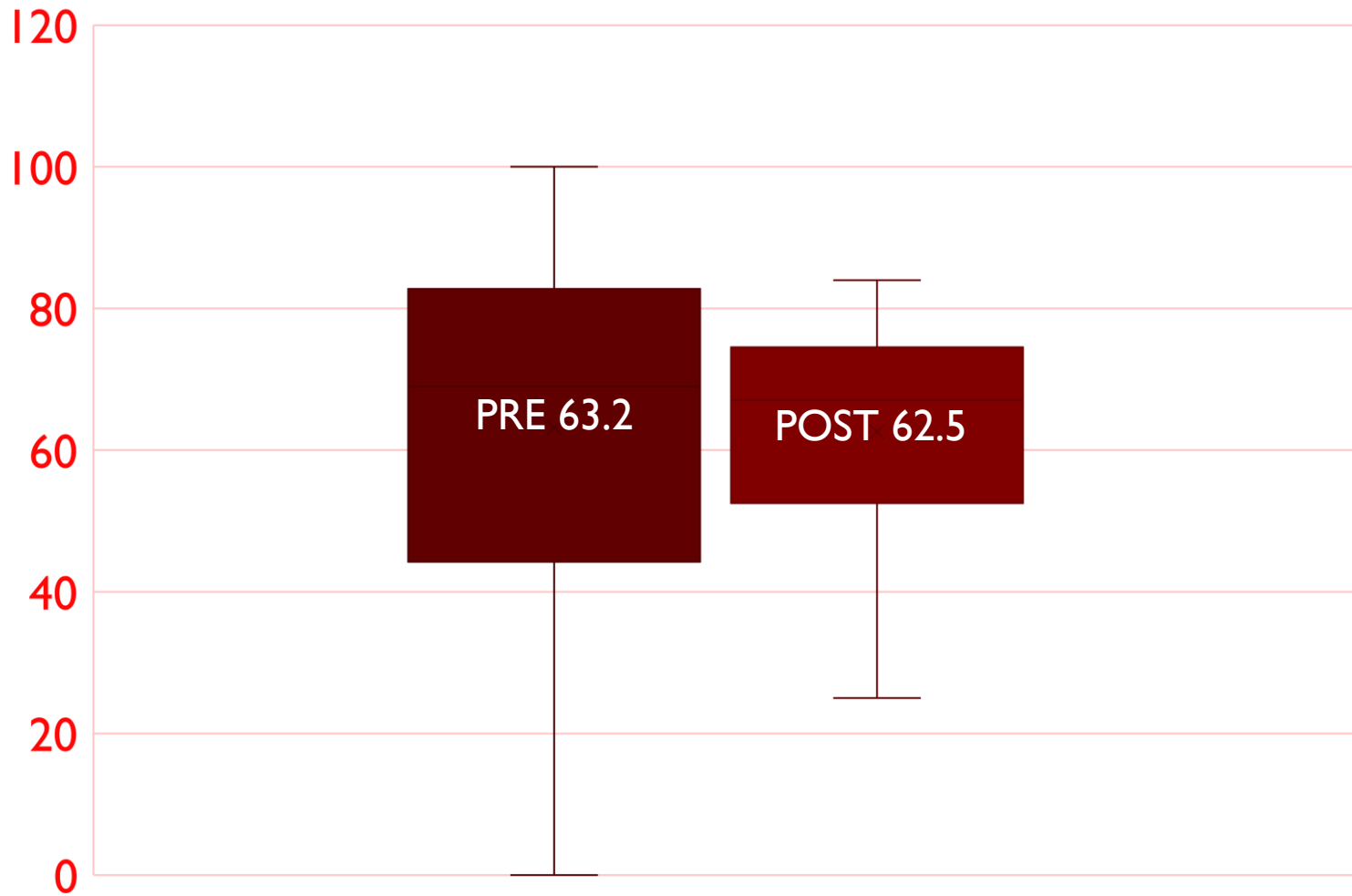




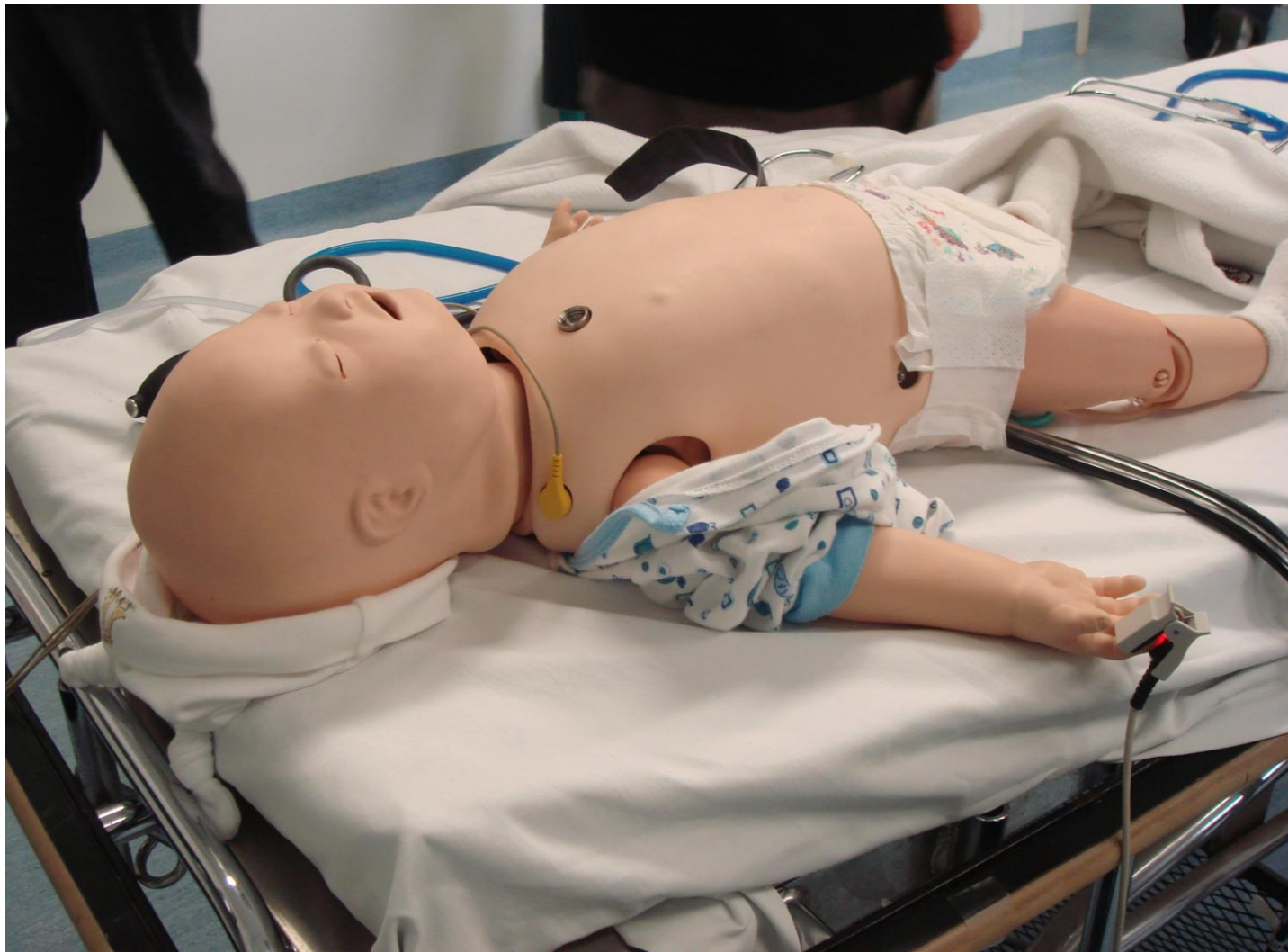
NUMBER OF
TRAUMA
RESUSCITATIONS
LEAD BY
RESIDENTS PRE
AND POST
ROTATION



SELF REPORTED
CONFIDENCE
LEVEL RELATED TO
TRAUMA
RESUSCITATION
PRE AND POST
ROTATION



SELF REPORTED
ANXIETY LEVEL
RELATED TO
TRAUMA
RESUSCITATION
PRE AND POST
ROTATION



SIMULATION

- Improves confidence
- Decreases anxiety
- Improves self identification of knowledge gaps
- Improves resuscitation skills
 - Improved performance of primary and secondary survey according to ATLS

Holland et al, Friedman et al, Mikrogianakis et al, Van Shaik et al

BARRIERS TO INCREASING SIMULATION EXPERIENCES

- Every 4 week turnover
- Labor intensive for our faculty
- Time intensive for our trainees
- In conflict with patient contact time



HOW DO WE SUPPLEMENT SIMULATION?

Aims: practical, relevant, easily accessible

- minimal additional time commitment from residents or faculty

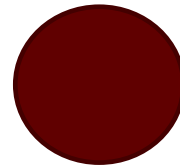


THE PLAYERS

Two pediatric emergency medicine attending physicians: director of resident rotation, simulation lead for pediatric emergency division

pediatric emergency medicine fellow

IU Technology Services



Senior emergency medicine-pediatrics residents

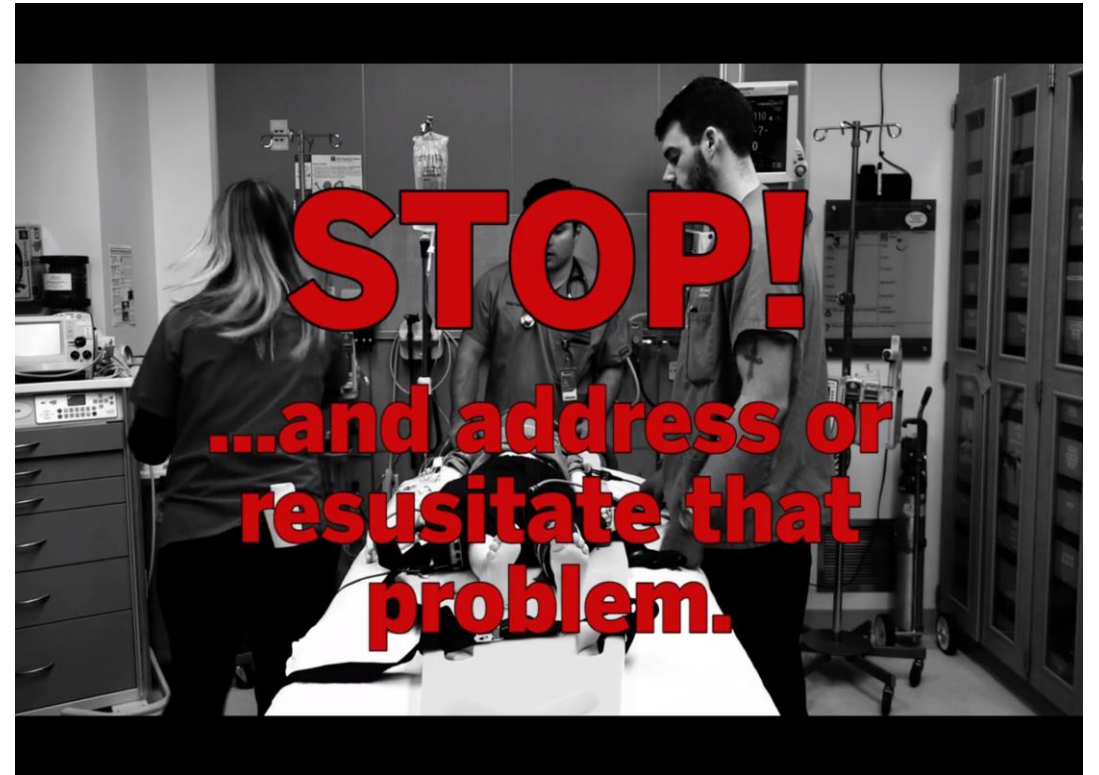
trauma program leadership

nurse leadership

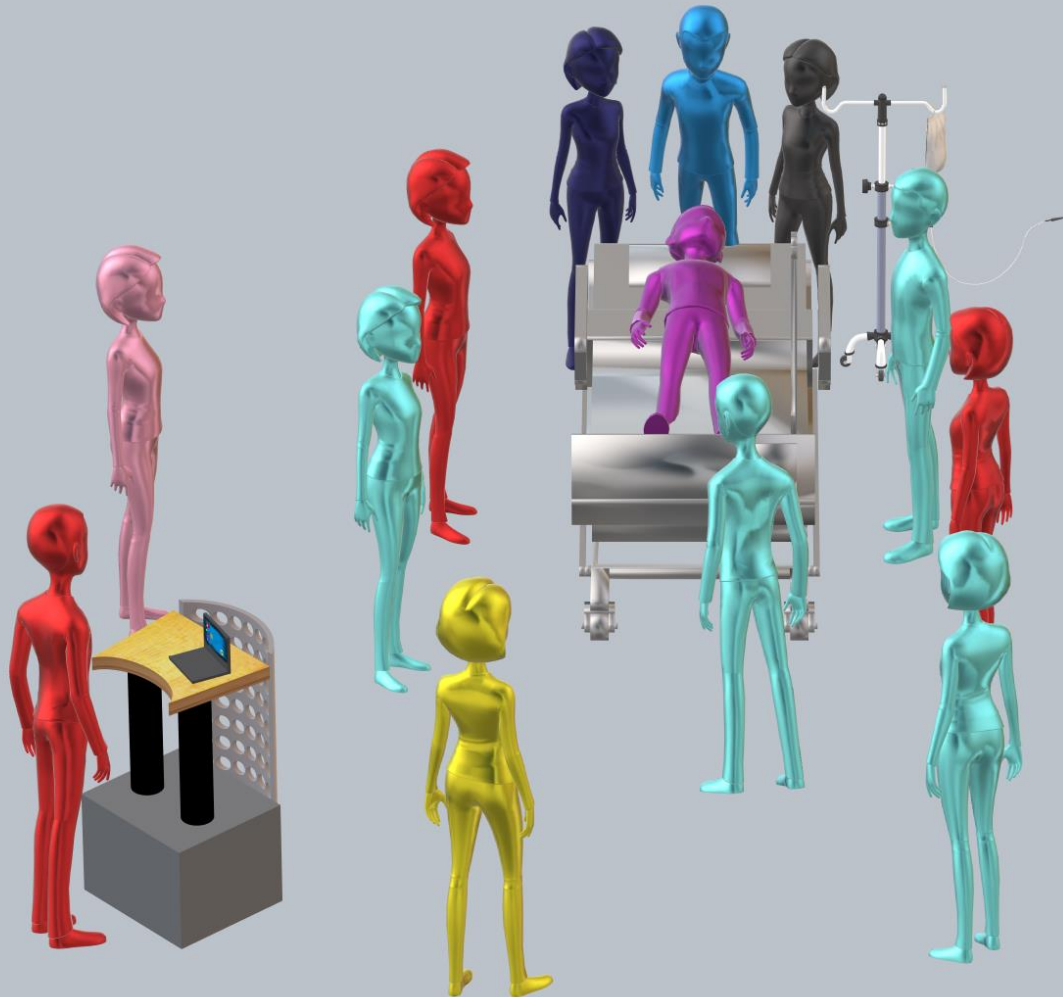
emergency bedside nurses and techs

PRACTICAL

- Similar to those produced by the American Heart Association to model ACLS
- Model trauma patient care with successful adherence to ATLS protocol
 - Brief narration
 - Minimizing theory
 - Emphasizing procedural competence



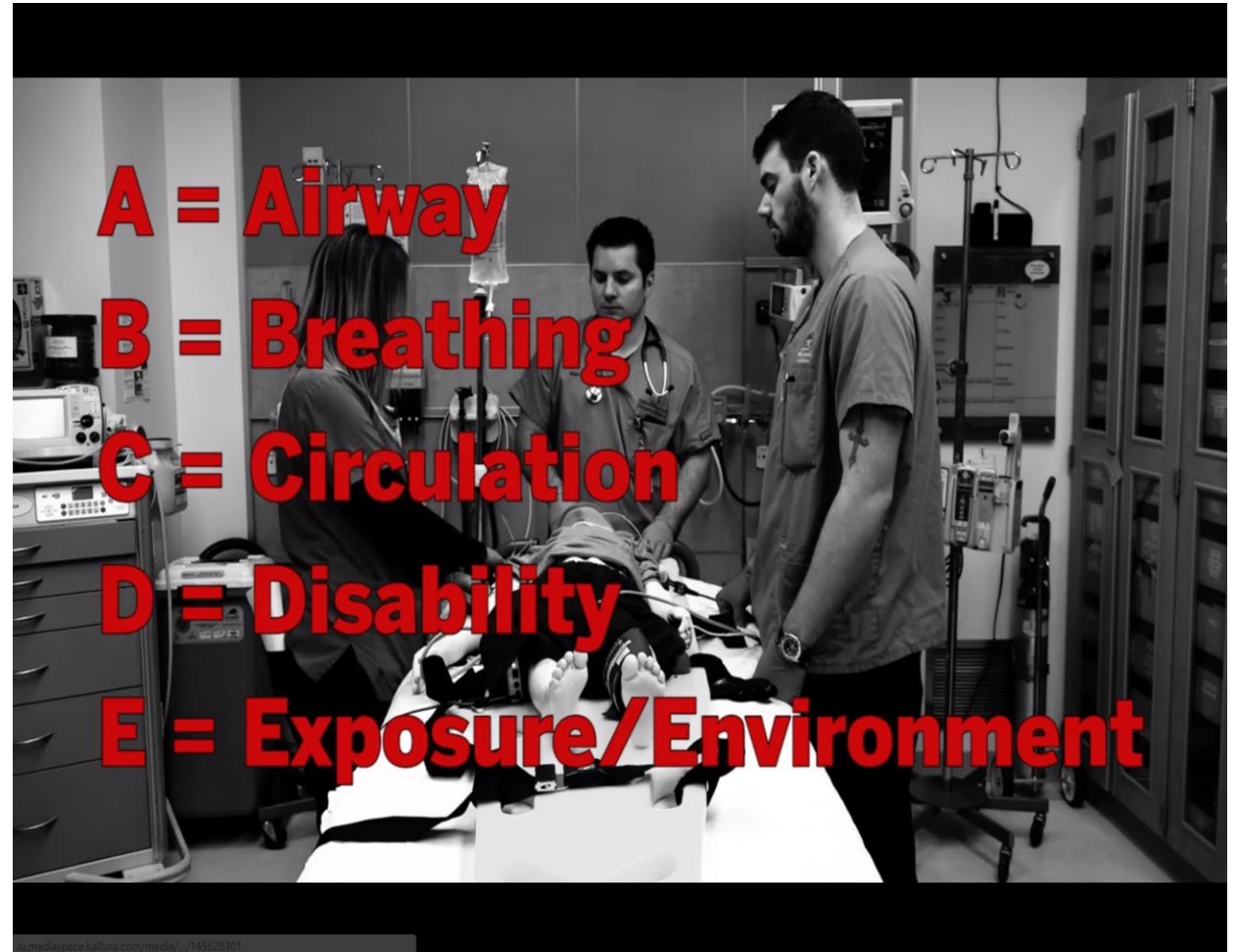
RELEVANT



- Filmed in the Riley Emergency Department
- Actors playing roles they play at work:
 - EM/Peds senior resident
 - RN
 - Tech
- Case used modeled after cases frequently seen in the Riley Emergency Department

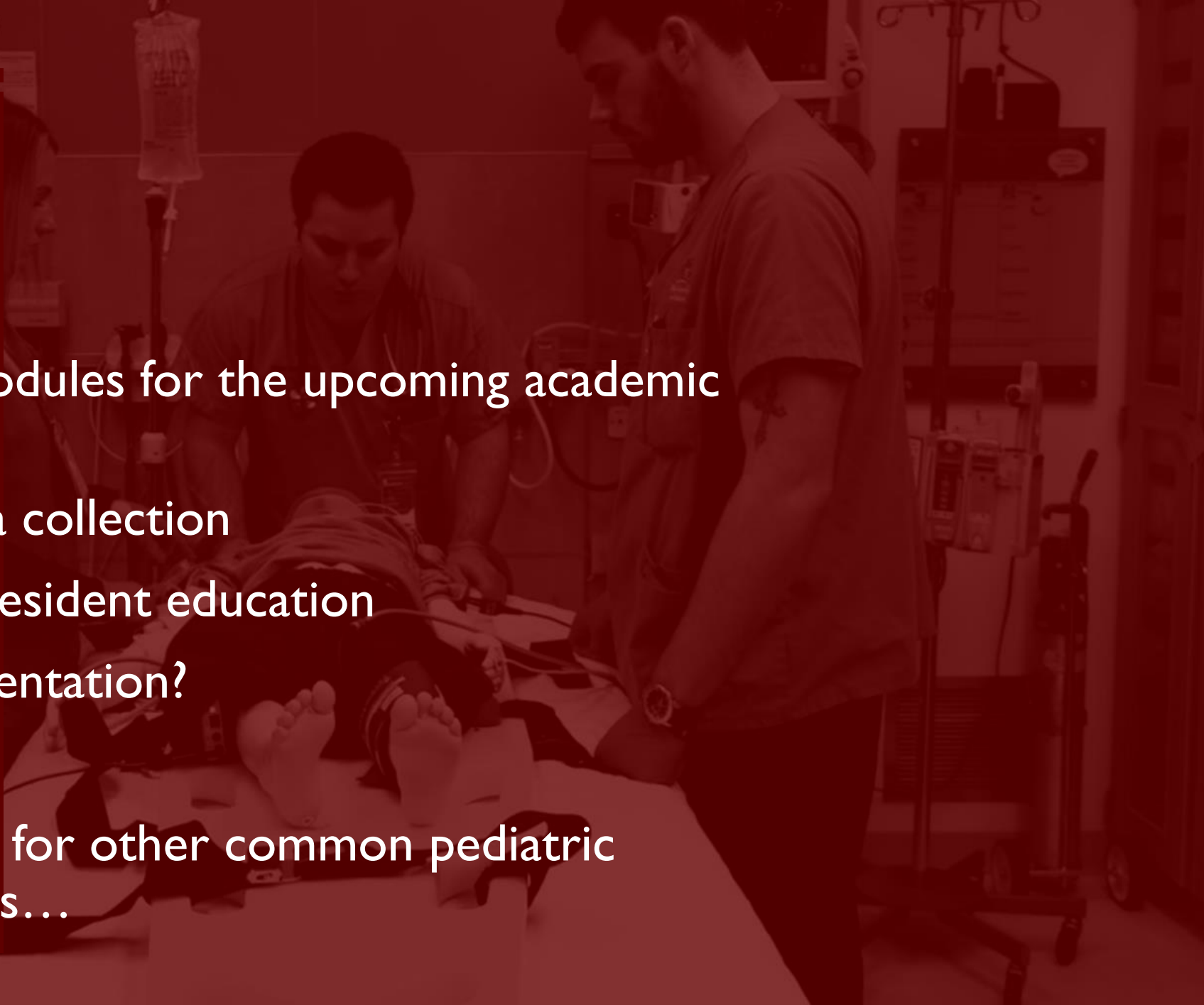
EASILY ACCESSIBLE

- Housed on Kaltura, linked via Canvas
 - To be incorporated into existing online modules
- Brief (less than 10 minutes)
- Available for asynchronous learning and just in time review



NEXT STEPS

- Final post production
- Incorporation into modules for the upcoming academic year
- Post intervention data collection
- Distribution beyond resident education
 - Nursing trauma orientation?
- Evaluate role of video for other common pediatric resuscitation scenarios...



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