

# Saving Baby Ryan: Using Bedside Simulated Mock Codes to Improve Patient Outcomes

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# Let's Debrief





# Objectives

- List steps to create mock pediatric code scenarios
- Discuss how current research supports performing mock codes
- Verbalizes ways to motivate caregivers of pediatric patients to participate in mock codes
- Identify how De-Briefing the mock enhances learning



# Current research

- Pediatric codes are rare
- PALS preparation is insufficient to provide..confidence and abilities to perform pediatric resuscitation successfully
- Survival rates for children who sustain in hospital cardio-pulmonary arrest has not improved in 4 decades!

E Hunt MD, MPH et al. Simulation of In-Hospital Pediatric Medical Emergencies and Cardiopulmonary Arrests: Highlighting the Importance of the First 5 Minutes. Pediatrics 2008;121:e34-e43  
Downloaded from [www.pediatrics.org](http://www.pediatrics.org)



# Current research

- “First responder” instincts have been lost
- “2 weeks after PALS training CPR skills begin to deteriorate and continue to decline to pretest levels in 1-2 years” .
- PALS alone is not enough to instill confidence and abilities to perform resuscitation successfully

N M Tofil, MD, et al. Initiation of a pediatric mock code program at a children’s hospital. Medical Teacher 2009;31:e241-e247

P Andretta, PhD et al. Simulation-based mock codes significantly correlate with improved pediatric cardiopulmonary arrest survival rates. Pediatric Critical Care Medicine 2011; Volume 12; No.1;p 33-37




# Current research

- Deficits identified when performing mock codes included:
  - ✓ Failure to follow PALS guidelines
  - ✓ Quality of technical skills
  - ✓ Management of time intervals for therapy
  - ✓ Communication breakdown
  - ✓ Debriefing is critical to provide performance feedback and identify areas of further learning

P Andretta, PhD et al. Simulation-based mock codes significantly correlate with improved pediatric cardiopulmonary arrest survival rates. *Pediatric Critical Care Medicine* 2011; Volume 12; No.1;p 33-37



# HPS does make a difference!

- Technology feedback adds to learning
  - Ability to look, feel and listen enhances assessment
  - Ability to practice skills and get results matters
  - Make time to introduce the participants to the technology
- 



# Get buy-in to participate

- Timing is everything
- Get leadership and physician support
- Keep the scenarios brief
- Encourage all to participate
- Ryan always survives
- Leave time to de-brief

# Mobile Sim Lab!



# Make it real

- Develop case studies from recent cases in your ED's, Pediatric Units or recent reports from the media

✓ near drowning

✓ shaken baby

✓ RSV

✓ post-op bleeding





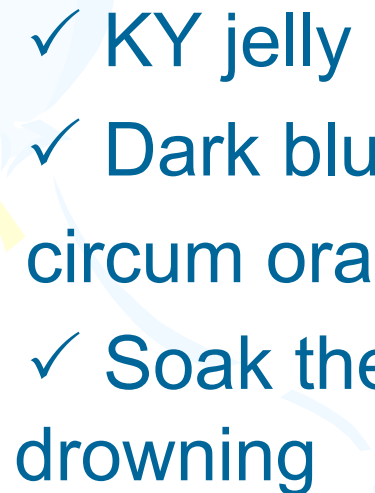

# Make it real

- Create your story
  - ✓ Review pedi records, listen to the stories
  - ✓ Design case studies around the “age” of your simulator, infant or pedi
  - ✓ Include background, age, hx of chronic or recent illness, immunizations, exposures
  - ✓ Having a “helper” to tell the story, play Mom, prompt if necessary.



# Make it real

## Simple Moulage:

- 
- ✓ KY jelly makes great snot!
  - ✓ Dark blue eye shadow for bruising, circum oral cyanosis
  - ✓ Soak the pamper and shirt for the near drowning
- 



# Be prepared

- Have the case studies pre-written.
- List the “on the fly” program changes you will be using so the case study is consistent between groups
- Have a list of expectations that you want to see the learner perform, assess, treat.
- Make sure that everything needed for resuscitation is available.

# Hands on with all the toys

- Practice the skills to improve confidence



# Try to be invisible!

- Avoid answering all the questions!
- May have to prompt initially





# Debrief benefits facilitator and learner

- Everyone participates in debrief
- Ask a learner to lead the session
- Review each element
- Facilitator can help to identify steps in the PALS algorithms that can be improved upon
- Facilitators can learn how to improve scenarios



# Emphasize assessment takeaways


- ABCs
- Response to respiratory distress
- Response to various rhythms

# Make time for skills practice after the mock code





# Repeat, repeat, repeat

- Decide how many mocks you have time to do per month, quarter, yearly
  - Schedule dates/times in advance
  - Plan to use the same case study for each group for a period of time
  - Be willing to re-schedule if the unit is too busy but don't let it become an excuse not to participate
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Let's do it again!  
Practice makes perfect!

