BACKGROUND

• Pediatric resident resuscitation skills are inadequate
  o Perceived confidence in resuscitation is low
  o ACGME requires pediatric resuscitation skills for graduation
• Rapid Cycle Deliberate Practice (RCDP) has been shown to improve resuscitation skills and perceived confidence in skills
  o There is no data on RCDP and retention of knowledge or skills
• We created a new RCDP simulation curriculum for pediatric interns to teach basic airway skills, CPR and defibrillation (use of Zoll)

OBJECTIVES

• Pilot our RCDP curriculum for pediatric interns
• Pilot a study comparing RCDP teaching with our current model of traditional debriefing
• Assess feasibility of study design
• Collect resident feedback on pilot curriculum
• Assess our data collection tools
• Assess knowledge and skill retention throughout the year

METHODS

• The interns are divided into two study groups – one traditional simulation and one RCDP.
• Each intern does a simulation in the simulation lab during orientation and at one other time during the year.
• At orientation and at three month intervals, the interns participate in 5 minute individual assessments which are scored using an assessment tool. An example of one question of the assessment and the scoring system is shown.

RESULTS

<table>
<thead>
<tr>
<th>Individual Assessment Scores</th>
<th>Traditional Group</th>
<th>RCDP Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>34.9</td>
<td>35.5</td>
</tr>
<tr>
<td>3 month interval</td>
<td>42.3</td>
<td>34.9</td>
</tr>
<tr>
<td>6 month interval</td>
<td>45.0 p&lt;0.01</td>
<td>35.6 p&lt;0.01</td>
</tr>
</tbody>
</table>

CONCLUSION

• It is feasible for all 34 pediatric interns to receive simulation training on pediatric resuscitation
• There are roadblocks to obtaining the individual assessments five times per year for all 34 pediatric interns.
• The residents like the simulation curriculum and are interested in more simulation.
• Preliminary data suggests RCDP is at least equal to traditional sim debriefing for skill acquisition and may show a trend towards improved retention of skills at 3 and 6 months.
• Our study tool requires adjustments for ease and accuracy of data collection

NEXT STEPS

• Given current pandemic, study is likely delayed until 2021
• Determine ways to incentivize resident participation and get program buy in to improve resident attendance at interval evaluations
• Add “Time to” data assessed by video review of the assessments
• Finalize our data collection tool – Individual Assessments
  o Highlight the “can’t miss” items
  o Addition of ERA (entrustable professional activities)

Supports ventilation with adequate bag-mask ventilation (BMV)
3: Correct mask placement on face, good seal without leak, jaw thrust, either C.E or two thumbs technique, gives breaths with chest rise within 45 seconds of reassessment of vital signs
2: Correct mask placement on face, good seal without leak, jaw thrust, either C.E or two thumbs technique, gives breaths with chest rise but >45 seconds after reassessment of vital signs
1: Obtains BMV mask but wrong size, placement on face, poor seal, poor technique, no chest rise or rate >6-8 seconds
0: Does not perform BMV

Recommended Professional Activities (one selected):
1: I would entrust this resident to bag mask ventilate a patient without direct supervision
2: I would entrust this resident to bag mask ventilate a patient with direct supervision
3: I would not entrust this resident to bag mask ventilate a patient

Feedback from Simulation Experience Forms – “I think that it would benefit everyone if more of these simulations occurred on a more frequent basis.”
“I think you should have simulation sessions more frequently.”