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Outpatient Emergency Preparedness

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Background

- Children with medical emergencies do present to their pediatrician's office
 - Prevalence varies between studies; 0.9-42 emergencies per office site per year ²⁻⁶
- Emergent presentations^{2,3}
 - Respiratory
 - Seizures, anaphylaxis, psychiatric/behavioral, dehydration

Background

- Despite this potential, many offices are not prepared to care for these children ^{9,10,11}
- Outcomes improve with an effective team, but this requires preparation, supplies, and knowledge⁷.
- Multiple studies cite lack of knowledge of the AAP policy statement may contribute to lack of preparedness^{1,6, 8}

Background

- Studies have shown improvement in office preparedness after education, mock codes as well as implementation of protocols^{2,8,9}
- One study utilizing simulation as a tool
- No studies using rapid cycle simulation

Simulation-based methods

- Improve team skills
- Improve safety systems
- Can be used to detect unanticipated errors or latent safety threats (LSTs) in facility design

Objectives

1. Does a simulation-based simulation clinical systems test (SbCST) combined with rapid cycle deliberate practice concepts approach improve preparedness for medical emergencies in an outpatient clinic?
2. Does having a non-English speaking patient presenting with a medical emergency affect preparedness/outcomes?
3. Can LSTs be detected with simulation based methods

Proposed Methods

- Needs Assessment
 - Retrospective chart review of # and type of medical emergencies
 - Data review HCUP data for most common reasons for pediatric emergencies in doctors offices
- Evaluate current protocol effectiveness regarding two common medical emergencies
 - Identify any latent safety threats
- Assess if current protocols align with AAP recommendations

Proposed Methods

- Perform rapid cycle systems test with onsite simulation
 - Use scenarios with critical decision points that need to occur in a time sequence.
 - Create standardized scripted debrief to serve as an observation form
 - Create list of LSTs and staff suggestions for remediation
- Assess if rapid cycle simulation helps to improve OP preparedness and knowledge both short term and long term
 - Can tailor the simulation to align with recommendations
- Immediate post survey, 4 mo and 6 mo post survey
 - Possible 6 mo f/u simulation

Next Steps

- Identify primary care pediatrician on SOC
- Calculate an effect size (could use % difference method)
- Identify site(s)
 - Needs assessment-Retrospective chart review, discussion with key site stakeholders
- Create simulation protocol, surveys
- Possible grant for supplies for sim and fidelity decisions
- Submit to IRB

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