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## Reducing Variability in Pediatric Neurologists' Approach to Pediatric Acute Ischemic Stroke

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Division of Pediatric Neurology  
Oregon Health & Science University  
9/21/18

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### Disclosures

- No relevant financial disclosures
- I will be discussed off-label use of acute therapies (IV tPA, endovascular therapy) in pediatric stroke



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### Background: pediatric stroke

- Pediatric arterial ischemic stroke 1-13/100,000 per year
- Acute therapies:
  - AHA guidelines
    - IV tPA should only be given to children in the setting of a clinical trial; no consensus on use in adolescents.
    - Endovascular therapy (ET) be reasonable for some patients <18 years
- Though children tend to have delayed diagnosis, treatment at a pediatric stroke center with stroke protocols in place may result in better outcomes
- Challenges in providing consistent care at small or medium sized children's hospital without a 24-7 pediatric stroke physician

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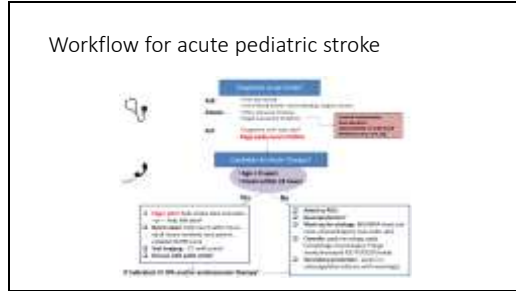
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**Project conception**

- **Problem:** There is an inconsistent approach to the in-hospital management of acute ischemic stroke among pediatric neurologists.
- **Purpose:** Develop and execute a quality improvement project involving team-based learning to improve the consistency of pediatric neurologists' responses to acute pediatric stroke at OHSU.

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**Methods**

- Quality Improvement Project in Division of Pediatric Neurology carried out in Spring, 2018, with pediatric neurology attendings participating
- Improving knowledge of stroke protocol through team-based learning exercise
  - Activating pager
  - Neuroprotection
  - Imaging
  - Qualifying for intervention
- Reducing intra-attending variability in approach to possible strokes.

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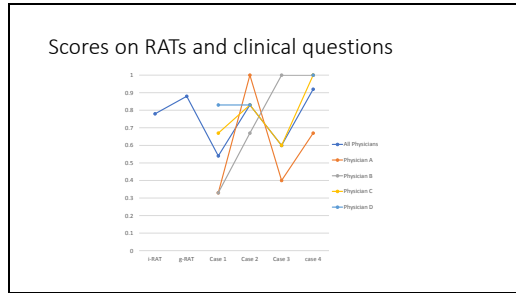
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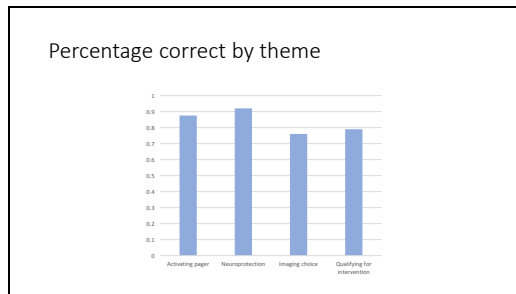
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### Discussion

- Team Based Learning was a well-received training mechanism
- The project helped clarify and improve our stroke protocol and response
- All providers reported more comfort with responding to stroke
- Challenges remain – there are no data driven or consensus based guidelines for giving acute therapies in pediatric stroke.
- We will continue to regularly review of pediatric stroke cases for QI purposes
- Simulations/mock stroke codes
- Increasing consistency of stroke response across the state

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Thanks

- Division of pediatric neurology
- Windy Stevenson, MD
- Adult stroke at OHSU

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