P.R.A.C.T.I.C.E. (Presentation and Review of Active Cases To Improve Clinical Education) for Clerkship Students

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Introduction

- Pediatric Clerkship students develop clinical knowledge through chance clinical exposures and lectures.

- Not all students are able to integrate knowledge and practice progression within the RIME framework.
Introduction

Develop, implement, and evaluate an interactive multi-modal curriculum for clerkship students to learn and apply knowledge of pediatric concepts within a framework of a standard clinical experience
Pre-Session

- **Read** case
- **Record** a FlipGrid Video presenting differential diagnoses and next management step

Session

- **Watch** FlipGrids in small groups
- **Develop** group differential and plan
- **Review** concepts in facilitated large-group

Post-Session

- **Write** a modified SOAP note
- **Complete** session survey with Likert scale questions and open-ended prompts.
- **Review** “Attending” note
Methods

Two comprehensive cases were developed with general pediatric and GI concepts.

**Case 1:** 1 month old with Trisomy 21, vomiting, GERD, failure to thrive, formula mixing, cow’s milk protein intolerance

**Case 2:** 13-month-old Trisomy 21, constipation, hematochezia, abdominal pain, anemia
Methods

Flipgrid Video

1. Introduction to case (One liner) – patient age/gestational age, diet if applicable, relevant history, presenting problems
   a. 0 – Not present
   b. 1 – Present
2. Primary diagnosis
   a. 0 – No primary diagnosis stated
   b. 1 - Primary diagnosis stated but not reasonable
   c. 2 – Reasonable primary diagnosis stated
3. Differential diagnoses
   a. 0 – No other diagnoses presented
   b. 1 – 1 reasonable differential diagnosis
   c. 2 – 2 or more reasonable differential diagnoses
4. Supporting/refuting evidence
   a. 0 – No supporting/refuting evidence
   b. 1 – Supporting/refuting evidence for some of differential diagnoses
   c. 2 - Supporting/refuting evidence for most differential diagnoses
5. Next Step (workup and/or management)
   a. 0 – No evaluation or management presented
   b. 1 – Reasonable workup or management presented

Different checklists for included clinical elements:
- FlipGrid
- Note
Results

- 104 third year medical students across six unique pediatric clerkship rotations with four facilitators

- 87 submitted both FlipGrid video and post-session note
  Case 1: 55 students
  Case 2: 32 students

Flipgrid element score (out of 8):
77/87 students with ≥ 7 components
Most missed point: reasonable diagnosis

Note element score (out of 11):
63/87 students with ≥9 components
Most missed points: problem list and reasonable diagnosis
Results: Session Structure

“The format in which it was presented (i.e. forming a differential/presentation, discussion in small and large group, and then writing a note) felt fairly realistic to the clinical setting.”

“I think that this process is key to clerkships, but it is often not sufficiently emphasized using a traditional didactic "lecture-based" format. I thought that the FlipGrid, facilitated discussion, and assessment and plan note really pushed us into an application-based mindset.”
Results: Engagement and Practice

“I really liked the combination of teaching modalities. It kept me engaged the entire session…”

“I liked how this session ... was designed to push us to be better and identify where we have opportunities to grow.”

“I liked the pre-work and the ability to try to practice my thought process before coming to the session because that way it sticks better in my head”

“It was a great way to learn the relevant GI material while practicing our reporter, interpreter, and manager skills
Students appreciate the engaging and interactive curriculum.

Students value the practice of developing clinical skills in a low-stakes learning session.

This multi-modal approach can support learner development within reporter, interpreter, and manager categories of the RIME framework.

FlipGrid is valuable technology for practicing oral presentations and obtaining feedback.
**Future Directions**

1. Use of curriculum to allow for evaluation of longitudinal development of skills
2. Evaluation of the types of clinical concepts that are best learned in this format
3. Development of additional GI and other subspecialty cases in this format
4. Comparison of the clinical elements in oral presentations with those in written notes in a clinical context
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Questions?