Congdon M, Clancy CB, Balmer DF, et al. Diagnostic reasoning of resident physicians in the age of clinical pathways. *J Grad Med Educ.* 2022;14(4)466-476. DOI:http://dx.doi.org/10.4300/JGME-D-21-01032.1

Supplementary Data

Interview Guide

Introducing the project:

There have been many changes in the practice of medicine that might impact the ways in which trainees learn. We're specifically interested in the ways clinical algorithms, aka "pathways" (and the templates, order sets that we use to implement those pathways) intersect with your learning. Here are some of the questions we are interested in exploring:

- What are the primary ways you learn as a resident?
- Did you have clinical algorithms or "pathways" in medical school or use them before intern year?
- What do you think are the purposes of pathways?
- What's your view about how pathways impact learning? Have you thought about this before?

Thinking about this past week on service...Let's talk about patients you've cared for. Please do not discuss potentially identifying information about patients (such as their names, dates, or room numbers).

Big Picture

Let's talk about one of the patients you've had on a clinical pathway...perhaps a more challenging patient or one for whom the diagnosis was not immediately clear or whose diagnosis changed:

- What were the challenges in figuring out the diagnostic priorities for this kid?
- How did the pathway influence your understanding of the "big picture"?
- How did the pathway influence your understanding of this diagnosis?

Past & Future

This past week can you think of a situation (for example: *getting a call from your intern in the middle of the night or when you get handoff or bed request*) when you've had to rapidly figure out how a situation developed and anticipate how it will evolve.

• Is your process different for patients on a pathway?

Equipment Difficulties

- Was there a time when an element of the pathway (algorithm, order set, template) posed challenges to the diagnostic process or was inappropriate for your patient (*for instance, when an order set default was inappropriate for a specific patient or when a template omitted an important line of questioning*)? How did you recognize this?
- Do some pathways lend themselves to learning better than others? Why? What have you learned? Do you read the "links" in pathways? When? Are they useful?

Self-Monitoring

- How do you gauge understanding of your interns or of your own clinical/diagnostic understanding when management is prescribed by a pathway?
- Have there been moments or situations when you realized gaps in your knowledge about a pathway recommendation?
- Do you ever feel tension between pathway efficiencies and the diagnostic process?

Anomalies

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- This week did you take someone off a pathway or variance them? Change their diagnosis? Why? How did you know to do that?
- What clues you in/helps you figure out a patient is "not a pathway patient" or that the initial diagnosis was incorrect? Did the presence of a pathway make it harder or easier to notice that this patient was evolving in an atypical way?

Job Smarts

- This week <u>when</u> did your interns pull up a pathway? How was it helpful to them in the <u>diagnostic process?</u>
- What types of situations do you see them using a pathway in or encourage them to use a pathway for? Which aspects of the pathway were most appropriate?
- Do you have a favorite pathway? A least favorite pathway? What are the aspects you like/dislike?

Opportunities/Improvising

- This week, was there a situation in which you felt comfortable offering your own recommendations rather than using the pathway prescribed management? Are their pathways you generally "*disagree*" with? Why?
- Are there pathways you use in situations other than the one they were clinically intended for?

Potential Pilot Ideas

• In thinking about ways to enhance resident learning using pathways, which components of the pathway or the clinical day are most important to address?