

i *The Alliance for Academic Internal Medicine Faculty Development Toolbox provides peer-reviewed tools to enhance faculty development and engagement.*

Title: Teaching Fast and Slow: A Framework and Toolkit for Clinical Reasoning Development on the Wards: Part 1

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Brief Description:

Faculty are tasked with facilitating the development of their trainees' clinical reasoning skills, yet most have had little to no training in the foundations or application of clinical reasoning, or how to demonstrate and teach these skills to learners. This workshop brings the abstract process of clinical reasoning to the surface, providing faculty with a framework and language to talk about clinical reasoning, as well as tangible tools to seamlessly incorporate clinical reasoning teaching into daily rounds and workflow, improving learning for trainees and advanced practitioners.

Learning Objectives (please provide at least two learning objective):

1. Describe key models and theories used to conceptualize clinical reasoning
2. Utilize a framework to identify learners with clinical reasoning deficits
3. Implement strategies for identifying clinical reasoning deficits along key steps of the clinical reasoning process

Equipment Required: Computer with LCD projector for PowerPoint Slides, handouts

Total preparation time: 30 – 60 minutes depending on level of facilitator experience

Total time commitment for learner: 60 minutes

Ideal audience size: 10 – 50 learners with 1 – 3 facilitators

Is activity a one-time activity or a series of activities: One-time activity, although there is potential to either divide this activity into shorter modules, do follow-up sessions or do one-on-one coaching sessions

Intended Faculty Audience:

• Hospitalist	• Outpatient Faculty
• General Internist	• Inpatient Faculty
• Specialist	• University Faculty
• Community Faculty	• New Faculty
• Volunteer Faculty	• Experienced Faculty
Comments: This session is intended for any faculty member working with trainees. The session can also be used for any faculty supervising advanced practice providers.	

Delivery Type

- Didactic training
- Self-directed
- One-on-one coaching
- Other (please describe): _____

PREPARATION
Desired Background/Qualifications for Instructor or Facilitator:

The facilitator should have a basic understanding of the principles of clinical reasoning and cognitive biases. The facilitator should also have at least one year of teaching trainees on the inpatient or outpatient setting and have a proven track record of excellent diagnostic reasoning and clinical teaching.

Preparatory Steps

Preparations and Considerations	Description
1.	At least two weeks prior to the session, carefully review the slide set, handouts and recommended articles listed in the reference section.
2.	Feel free to adjust the slide set as needed so you can tailor the information to your audience.
3.	On the day prior to the workshop, print out the handouts for the session.
4.	On the day of the workshop, arrive early to ensure that the AV equipment and room are set up as needed.
5.	Review the slide set with your audience, facilitate the interactive small group sessions and give the participants the recommended session handouts

ACTIVITY

Based on the delivery mode(s) selected above, complete the following table(s) below

Didactic Training

The PowerPoint slides provide the foundation for this activity. The handouts summarize the key points from the session and can be given to the participants during or at the end of the session.

Steps	Description	Estimated Time	Slide Number
1	Welcome participants	1 minute	1 - 2
2	Goals and objectives	1 minute	3 - 4
3	Introduce case	1 minute	5
4	Dual process theory and heuristics	5 minutes	6 - 13
5	Clinical reasoning process and cognitive biases	5 minutes	14 - 24
6	Breaking down the clinical reasoning steps	5 minutes	25 - 28
7	Diagnosing deficits in clinical reasoning	3 minutes	29 - 30
8	Small group activity #1	10 minutes	31 - 35
9	Small group activity #1 debrief	10 minutes	36 - 39
10	Take home points	1 minute	40
11	Q&A	8 minutes	41
12	References	N/A	42
Total		50 minutes	

Self-Directed Training

The PowerPoint slides provide the foundation for this activity. The handouts summarize the key points from the session and can be given to the participants at the end of the session. Faculty members interested in learning more can be directed to review the slides, handouts and articles provided.

Steps	Description	Estimated Time	Slide Number
1	Review slides (see above for breakdown)	45 minutes	1 - 42
2	Review articles	15 minutes	
3	Review handouts	15 minutes	
4	Apply information learned to your daily practice		
Total		75 minutes	

One-on-one Coaching

The PowerPoint slides provide the foundation for this activity. The handouts summarize the key points from the session and can be given to the participants during or at the end of the session. This can be used to remediate faculty members who are struggling with their teaching. The techniques described can also be used to directly remediate students with clinical reasoning deficits. Facilitators and faculty can use the handouts to help struggling learners in real time.

Steps	Description	Estimated Time	Slide Number
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1	Prior to meeting with the faculty member or trainee in need of coaching, carefully review the slides, articles and handouts	60 minutes	1 - 42
2	Apply the the general and targeted techniques to coach trainee (feel free to use the worksheets in real time)	As needed	
Total		As needed	

FOLLOW UP

One-on-one coaching

Steps	Description	Estimated Time
Evaluation and Assessment	Can consider implementing the techniques learned in one-on-one remediation for a trainee and assess the trainee's pre- and post-intervention clinical performance	N/A
Dissemination of Results	N/A	N/A

EVALUATION AND OUTCOMES

Source	Description
N/A	N/A
N/A	N/A

FURTHER STUDY/REFERENCES:

- Trowbridge RL. Twelve Tips for Teaching Avoidance of Diagnostic Errors. *Medical Teacher* 2008; 30:496 – 500.
- Bowen, J. Educational Strategies to Promote Clinical Diagnostic Reasoning. *NEJM*. 2006
- Monteiro SM et al. Diagnostic Reasoning: Where We've Been, Where We're Going. *Teaching and Learning in Medicine*. 2013; 25(S1), S26-S32.
- Clinical Reasoning Toolkit: <http://www.improvediagnosis.org/?ClinicalReasoning>