

# Teaching Clinical Reasoning: An Innovative Approach!

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## Background

- Clinical reasoning is a core skill of the successful clinician.
- Reasoning transpires largely at the subconscious level: as a clinician gains experience, articulation of the steps in his/her thought process becomes more difficult.

## The Challenge

- Provide a mechanism for residents to experience first-hand the reasoning of an experienced clinician
- Further develop skills of clinical reasoning of residents

## Goals/Objective

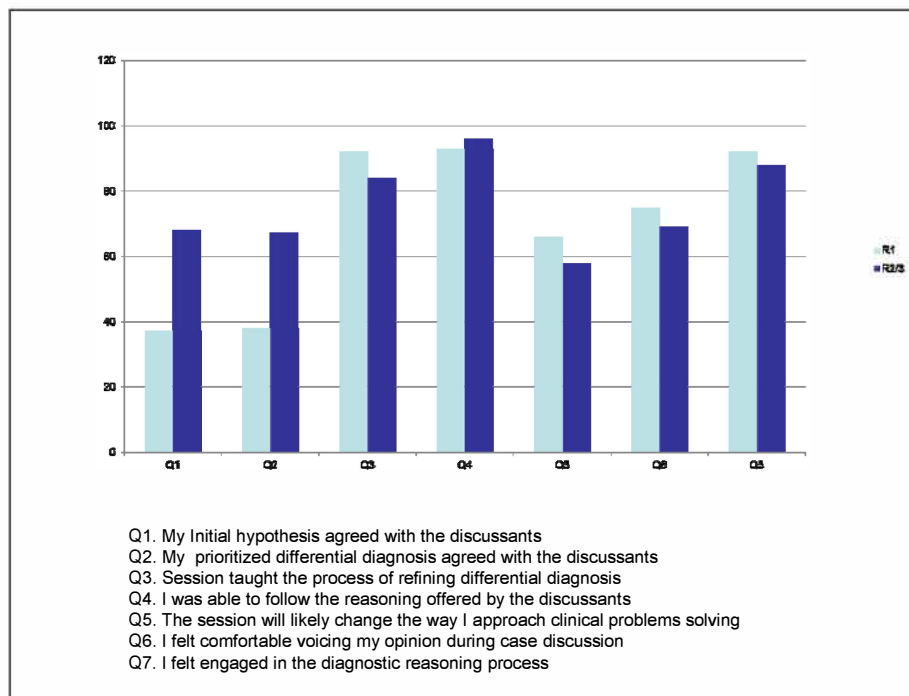
- Make thought process of a master clinician more transparent
- Highlight intricacies of the diagnostic process
- Help learners better understand how experienced clinicians formulate complex clinical decisions: combining prior experiences with evidence-based knowledge
- Teach process of progressive problem solving
- Outline cognitive steps leading to success in eliciting, framing and then solving medical problems.

## Initiative

- Monthly clinical reasoning sessions for all Internal Medicine residents
- "Unknown" clinical case presented in short segments to expert clinician
- Clinician verbalizes his/her thought process as case unfolds, teaching process of progressive problem-solving to learners
- Learners gain insight into the thought process being used
- Teaching points and wrap-up provided
- Session ends with a completion of brief survey

## Results

Percent of R1s and R2/R3s choosing "agree" and "strongly agree" to survey questions



## Comments from Learners

- "It is helpful to think out loud.. I jump to conclusions too fast ... need to think about differential diagnosis"
- "learned about prioritized differential diagnosis. Helped me reason better"
- "Think broadly....avoid premature closure"
- "learned the importance of focused physical"
- "Refining of diagnosis as more information is available"
- "Helped me reflect on my thought process"

## Conclusions

- Clinical reasoning session is a valuable tool to teach and learn the process of:
  - Hypothesis generation (elicit right question)
  - Problem representation (develop problem list)
  - Prioritizing differential diagnoses
  - Problem-solving strategies (pattern recognition, analytical reasoning)
- Senior residents rated their ability to perform elements of clinical reasoning higher compared to R1s

## Lessons Learned

- To further engage the residents, we piloted a team-based learning approach:
  - Initial data from 2 sessions (n=51) revealed 76% of residents thought discussions in small groups further helped refine their differential diagnoses
  - Majority of participants (88 %) were very comfortable sharing their clinical reasoning process within small groups