Teaching Tips

Clinical Reasoning - Part 1

Clinical reasoning is a complex skill and four decades of research have resulted in little consensus about the best reasoning process. In fact, some authors now suggest that learners benefit from practicing a combination of analytic and non-analytic processes. This and the next two Teaching Tips will present several models and strategies to help you provide guidance and feedback as learners gain clinical experience. Choose the combination that works best for you and your learners.

Shifting Research Foci

<table>
<thead>
<tr>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Solving Processes</td>
<td>Specific Knowledge &amp; Memory</td>
<td>Mental Representations &amp; Organization</td>
<td>Combined Reasoning Instruction</td>
</tr>
</tbody>
</table>

1970s: Hypothetico-deductive method

This method is the result of two studies observing clinical reasoning through “think aloud” and “stimulated recall.” The schematic captures how the clinicians who were studied generated multiple hypotheses early in the encounter, then sought data to confirm or rule out each. Students often do this process on their own, however, some may benefit from questioning that follows this process. If you only see a student for precepting after the physical exam, ask her to tell you her initial hypotheses from the history alone. Then, ask if her hypotheses changed once she conducted the exam. Having students articulate their thoughts introduces them to different thought processes and illuminates teaching points that might have been missed by asking for the differential alone. A common practice is to use evidence to verify or discredit the hypotheses. Encourage students to continue this practice on several cases, even once diagnoses become more routine.

References / Resources:


"If you only have a hammer, you tend to see every problem as a nail." - Abraham Maslow

NEXT MONTH:
Ideas from the 80s and 90s

Visual model adapted by J Rencic, 2012 (from Sandhu et al, 2006), Einstein Clerkship Directors’ Retreat

Teaching Tips is a monthly e-newsletter for Faculty, Residents, and Community Preceptors sponsored by the DFSM Faculty Development Fellowship at Montefiore Medical Center. Teaching Tips will include practical teaching techniques for busy physicians who want to enhance teaching and learning at their clinical practices. If you have any questions, comments, or suggestions for future topics for Teaching Tips please contact Ellen Tattelman at ettelm@montefiore.org or Molly FitzGerald at mofitzge@montefiore.org.