

*The problem with automaticity is, I see someone walking down the street & I've diagnosed their gait problems before they pass me -
physiatrist*

CLINICAL THINKING TOOLS

1. **Illness Scripts** or patterns
2. **Teaching Differential Diagnosis**
3. **SNAPPSS**
4. **Precepting Using Microskills**
5. **Chart Stimulated Recall**
6. **Teaching Skills & Procedures**
7. **Using Questions to Stimulate Thinking**

Steps in Learning Clinical Thinking

i. Focused History, Examination & Investigations

Some medical schools teach this, some don't; even if taught some students are weaker in this area than others, so always start a rotation with assessing this step. Observe & talk about how different conditions & diseases reveal themselves through good questions followed by physical examination & relevant investigations. Talk about the problem with the 18 seconds before a patient is interrupted by the doctor. Talk about the use of Subjective/Objective questions. Talk about how different specialties approach this task differently. Your automaticity in this area means a patient is in your office 5 min. & 8 times out of 10, you know the diagnosis. Your learner is not at that level & if you push them too quickly to emulate your skill, they will make diagnostic errors, & they will cover up those errors. Avoid encouraging the development of this habit by giving them reasonable time to develop this ability.

ii. Using Differential Diagnosis

Medical students have been rewarded for twenty some years for quickly coming up with the correct, memorized answer. Now you are going to ask them to stop doing that & learn to problem solve. Some of them will probably feel awkward, reluctant & embarrassed because they will be using a type of thinking they probably have very little experience with. Again, hold your automaticity in check & force yourself to go over the differential with the learner by using techniques like Illness Scripts or SNAPPSS until the learner does a differential easily. Talk to them at this stage about how cognitive errors impact on developing the differential & help them learn to identify when they are making this type of error. Help them understand why medical error is the 7th leading cause of death in Canada.

iii. Patient Management

Clerks can in many cases be trusted with simple management plans such as stitching simple cuts, ordering standard tests & giving shots. As their diagnostic skills improve in resident years, your trust in their management skills will also improve & your teaching strategy can change to 5 Minute Preceptor, then Chart Simulated Recall for the most independent students.