

Critical Thinking Frameworks

Framework	Focuses On:	Best For	Pitfalls	Steps
SNAPPS	Data processing	Experienced learners with intrinsic motivation Longitudinal relationship	Learner needs to drive the process Most focus on diagnosis (but can be used for planning)	<ol style="list-style-type: none"> (1) Summarize briefly the history and findings (2) Narrow the differential to two or three relevant possibilities (3) Analyze the differential by comparing and contrasting the possibilities (4) Probe the preceptor by asking questions about uncertainties, difficulties, or alternative approaches (5) Plan management for the patient's medical issues; and (6) Select a case-related issue for self-directed learning.
Diagnostic Timeout	Metacognition	Diagnosis seems wrong High risk of bias Case isn't making sense Seems to have been jump to conclusion	Need to identify that there may be error/inaccuracy Diagnosis specific	<ol style="list-style-type: none"> (1) Purposefully step back and ask: <i>what is our working diagnosis?</i> (emphasis on working, not defined) (2) Using this as a hypothesis, go back and review data to find what does and does not fit (3) Refine working diagnosis (4) Can ask learners to directly compare/contrast diagnoses
Problem Representation	Data processing	Early learners (later stage learners may do this naturally)	Can force into buckets that may not fit perfectly	<ol style="list-style-type: none"> (1) Have the learner to summarize the case using <i>semantic qualifiers</i> (Last night → “acute onset”; Has happened before → “Recurrent”; Same knee → monoarticular) (2) Can ask learners to <ol style="list-style-type: none"> a. Compare and contrast diagnoses b. Identify the “typical” presentation and similar/different c. Name supporting and contradictory evidence
Murtagh's Diagnostic Strategies	Diagnostic Reasoning/ Data processing	Any stage	Diagnosis specific	<ol style="list-style-type: none"> (1) Most likely diagnosis (2) Serious disorders not to be missed (Can't miss) (3) Pitfalls (often missed) (4) Masquerades– what else can present like this? (5) Is this patient trying to tell me something else? (History or findings that are inconsistent)
ACTFAST	Data processing	Early learners, although can be used at any stage	May be challenging for cases with many problems/issues to discuss	<ol style="list-style-type: none"> (1) Ask a clinical question (2) Categorize the question into one of 4 categories (diagnosis, level of risk, trajectory, management decision) (3) Tell your most likely answer (4) For – provide evidence for (5) Against – identify information that is contradictory or supports another hypothesis (6) Synthesis – put together prior steps into an assessment (7) Test – create a plan

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