

Clinical Note Generation with CoT

SOAP Note Structure

- **Subjective:** Patient's symptoms and history
- **Objective:** Physical exam findings and lab results
- **Assessment:** Diagnosis and clinical reasoning
- **Plan:** Treatment and follow-up recommendations

CoT-Enhanced Assessment Section

Problem: Acute onset chest pain

Reasoning: Substernal pressure + radiation to arm + diaphoresis + troponin elevation + ECG changes → consistent with acute MI. Differential included angina (unstable vs stable ruled out by troponin), PE (low probability by Wells score), and GERD (atypical for severity). Given TIMI score 5 (high risk), urgent cardiology consultation and catheterization indicated.

Diagnosis: Acute STEMI, high risk

Documentation: CoT makes clinical reasoning explicit and auditable