

## 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