

## Zero-Shot Chain-of-Thought in Medical Context

### Standard Medical Query:

Patient presents with fever (39°C), productive cough, and pleuritic chest pain.  
What is the most likely diagnosis?

**"Let's think step by step"**

### Zero-Shot CoT Medical Prompt:

Patient presents with fever (39°C), productive cough, and pleuritic chest pain.  
What is the most likely diagnosis? **Let's think step by step.**

### ✓ Success Case

**Query:** Fever + cough + pleuritic pain

**With CoT:** Systematic evaluation of symptoms → ruled out alternatives → pneumonia diagnosis

**Accuracy:** 85% → 92%

### ✗ Limitation Case

**Query:** Rare genetic syndrome

**With CoT:** Detailed reasoning but incorrect conclusion

**Issue:** Limited knowledge, not reasoning problem