Error Analysis in CoT Reasoning

Common Error Types

- Premature closure (stopping too early)
- Anchoring bias (fixation on initial diagnosis)
- Missing rare conditions
- Ignoring contradictory evidence

Improvement Strategies

- Force consideration of alternatives
- Explicit verification steps
- Checklist integration
- Human-AI collaboration

Error Pattern Analysis

Error: Misdiagnosed appendicitis as gastroenteritis

Root Cause: CoT stopped after matching 3 symptoms, missed fever + RLQ tenderness

Pattern: Premature closure (50% of diagnostic errors)

Fix: Add "Consider red flags" step before finalizing

Learning: Analyze failures to improve CoT prompting strategies