

# 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

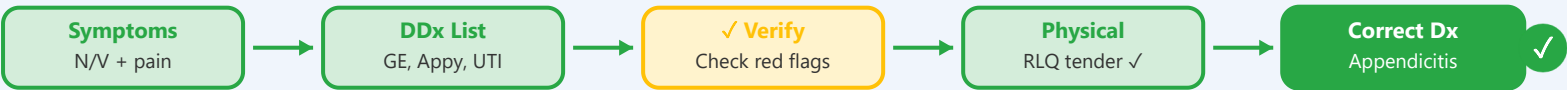
- Force consideration of alternatives
- Explicit verification steps
- Checklist integration
- Human-AI collaboration

## Error Detection & Correction Flow

### Error Example: Misdiagnosed Appendicitis



### Corrected with CoT Enhancement



**Root Cause:** Premature closure after matching 3 symptoms

**Fix:** Add mandatory "red flag check" step before finalizing diagnosis

**Results:** 50% error reduction

**Learning:** Analyze failures to improve CoT prompting strategies