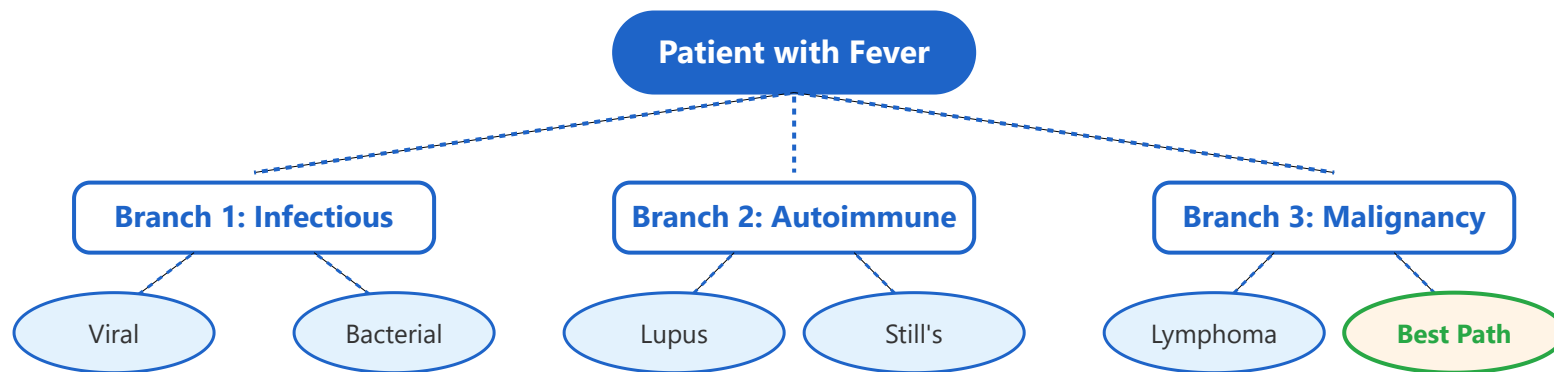# Tree of Thoughts (ToT) for Medical Reasoning

ToT Structure

- **Branching Exploration:** Multiple diagnostic pathways simultaneously
- **Depth-First/Breadth-First:** Systematic exploration strategies
- **Backtracking:** Return to earlier decision points if path fails
- **Evaluation:** Score each branch based on evidence

Patient with Fever

Branch 1: Infectious
- Viral
- Bacterial

Branch 2: Autoimmune
- Lupus
- Still's

Branch 3: Malignancy
- Lymphoma
- **Best Path**

Advantage: Explores multiple hypotheses systematically before committing to one