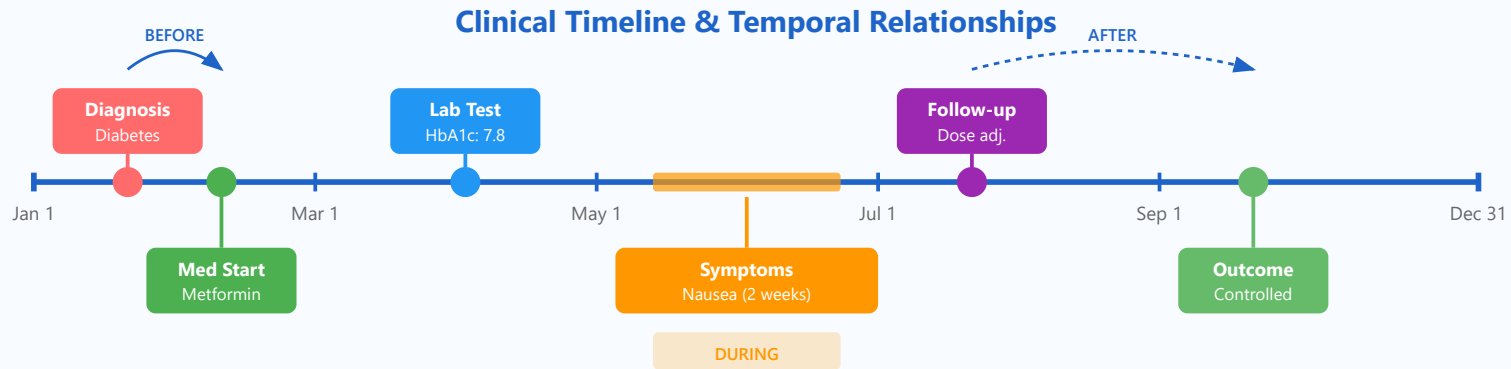


Temporal Reasoning



Temporal Expressions: "3 days ago" → Relative "Jan 15, 2024" → Absolute "for 2 weeks" → Duration "twice daily" → Frequency "since diagnosis" → Anchored
Allen's Relations: BEFORE, AFTER, MEETS, OVERLAPS, DURING, STARTS, FINISHES, EQUALS



Time Expressions

- Absolute dates (Jan 1, 2024)
- Relative dates (3 days ago)
- Durations (for 2 weeks)
- Frequencies (twice daily)
- Anchored times (since surgery)



Event Ordering

- BEFORE / AFTER relations
- OVERLAPS / DURING
- STARTS / FINISHES
- Medication timelines
- Symptom progression



Timeline Construction

- Patient journey visualization
- Multi-source data fusion
- Conflict resolution rules
- Uncertainty handling
- Missing data imputation



Clinical Applications

- Disease progression tracking
- Treatment response timing
- Adverse event detection
- Readmission prediction
- Longitudinal outcomes