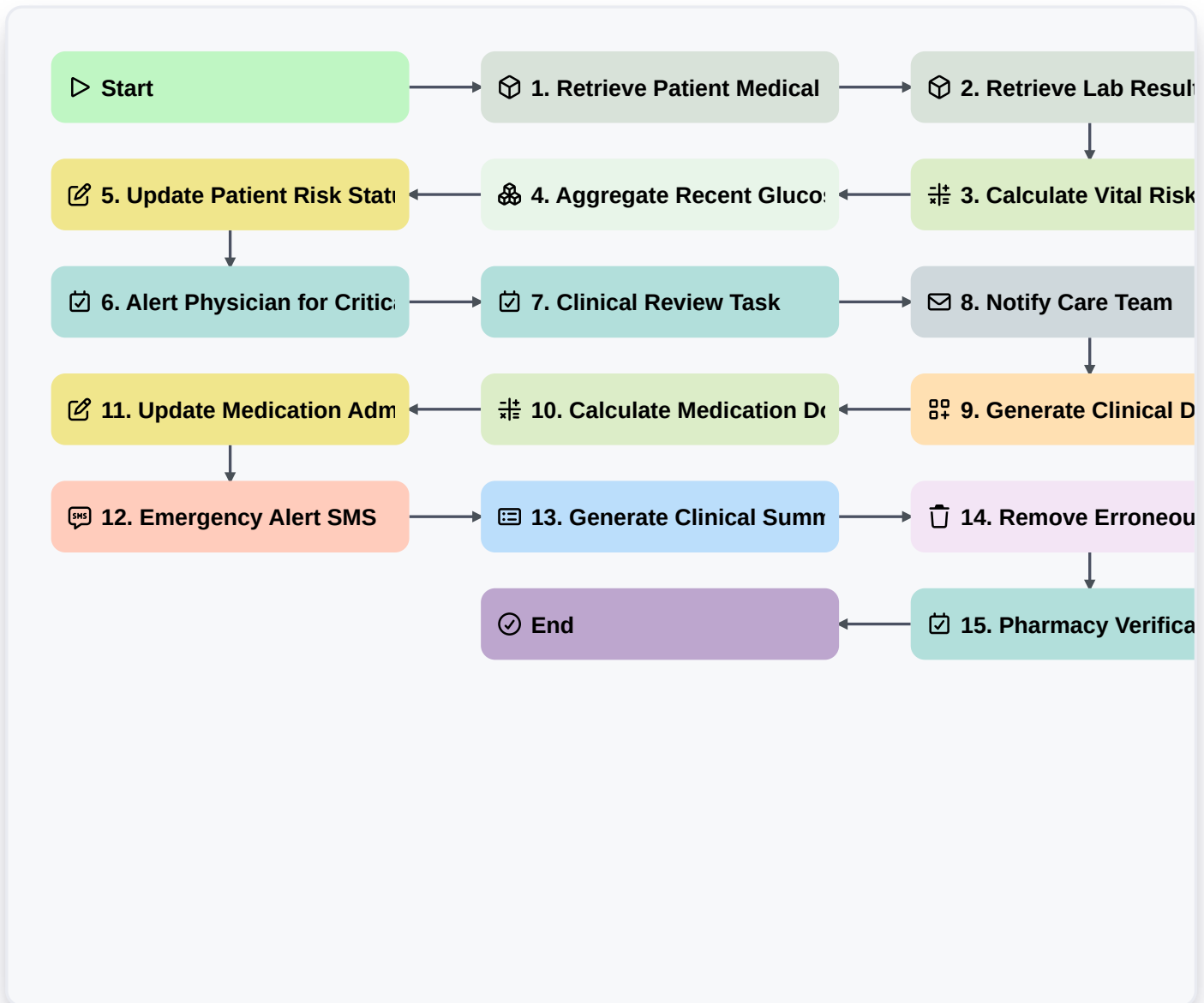


Clinical Decision Support System Workflow



▷ Start

Start of the Workflow/Process.

📦 1. Retrieve Patient Medical History

Fetch all historical diagnostic entries and existing conditions from the Patient Data Model.

📦 2. Retrieve Lab Results

Fetch latest laboratory test values (e.g., glucose, white blood cell count) from the Lab Results Data Model.

🔢 3. Calculate Vital Risk Score

Execute a formula combining blood pressure, heart rate, and temperature to determine an automated risk index.

🔗 4. Aggregate Recent Glucose Levels

Calculate the average of all glucose readings from the last 7 days to identify trends.

📝 5. Update Patient Risk Status

Update the 'Risk Level' field in the Patient Data Model based on the calculated risk score.

📧 6. Alert Physician for Critical Value

Create a high-priority task for the attending physician when lab results fall outside of safe parameters.



7. Clinical Review Task

Create a routine task for a specialist to review the aggregated longitudinal data.

8. Notify Care Team

Send an automated email to the nursing and medical staff regarding the updated patient status.

9. Generate Clinical Decision Log

Create a new entry in the 'Clinical Decisions' Data Model to document the reasoning behind the current treatment plan.

10. Calculate Medication Dosage

Execute a formula using patient weight and drug concentration to determine the safe dosage.

11. Update Medication Administration Record

Update the status of the prescribed medication entry to 'Pending Administration'.

12. Emergency Alert SMS

Send an urgent SMS to the On-Call Doctor if the risk score exceeds the critical threshold.

13. Generate Clinical Summary Report

Create a comprehensive PDF/Report summarizing the patient's history, recent lab aggregates, and the suggested decision.

14. Remove Erroneous Lab Entry

Delete a duplicate or incorrectly logged lab result entry from the Data Model.

15. Pharmacy Verification Task

Create a task for the pharmacist to verify the calculated dosage against the patient's allergy profile.

End

End of the Workflow/Process.