Sequence Diagram

| Alert Generator | Data Storage | Alert Manager | Medical Staff | Alert |
|---|---|---|---|---|

- Check patient data
- Confirm trend
- Create alert
- Send alert
- Acknowledge
- Resolve alert
- Update data

The UML Sequence Diagram for the Alert Generation outlines the sequence of messages exchanged between the objects, namely the AlertGenerator, DataStorage, AlertManager, MedicalStaff, and Alert.

The diagram begins with the AlertGenerator checking patient data and confirming data trends with the DataStorage. Upon identifying a critical condition, the AlertGenerator creates an alert and forwards it to the AlertManager. Subsequently, the AlertManager sends the alert to the MedicalStaff for immediate attention. The MedicalStaff acknowledges the alert, indicating their awareness of the situation. Once the alert has been addressed, the MedicalStaff resolves it, prompting the AlertManager to update patient data in the DataStorage.

This design choice emphasizes the flow of information and actions within the alert generation system. By depicting the sequence of interactions between the objects, the diagram provides a comprehensive view of how alerts are generated, communicated, and resolved in real-time.