

Sequence diagram:

The flowchart represents a systematic approach to patient care, where a Patient monitor continuously tracks patient data. When specific alert criteria are met, the AlertGenerator processes this information. If a trend is confirmed, it may bypass additional steps and directly create an alert. Otherwise, historical data is fetched from DataStorage to provide context to the alert.

Upon alert creation, medical staff, particularly a nurse, is notified. The nurse then acknowledges the alert and assesses the patient. Depending on the patient's condition, manual intervention may be necessary to resolve the issue.

This process ensures that any deviations in patient health are quickly identified and addressed. It highlights the importance of integrating automated monitoring with human oversight. The flowchart emphasizes the collaborative effort between technology and medical professionals to maintain high standards of patient care. By combining real-time data analysis with historical context, the system facilitates prompt and informed responses to potential health risks. Overall, it depicts an efficient and responsive healthcare monitoring system designed to prioritize patient safety and well-being.

State diagram:

The diagram illustrates a four-stage alert management workflow designed to ensure patient safety and effective response in a healthcare setting. The process begins when the system detects that certain threshold criteria have been met, which is represented by the "Generated" stage. This detection triggers an alert that is then "Sent" to the medical staff, prompting them to take action.

Upon receiving the alert, the medical staff move to the "Acknowledged" stage, where they confirm receipt and begin to assess the situation. The flowchart outlines two potential outcomes from this point: if subsequent readings return to normal, or if the medical staff manually resolve the issue, the process moves to the "Resolved" stage.

This visual tool serves as a guide for healthcare professionals, ensuring that alerts are not only generated and sent but also acknowledged and resolved in a timely manner. It emphasizes the critical role of medical staff in interpreting and acting upon system-generated alerts, ultimately contributing to the provision of high-quality patient care. The flowchart's clear depiction of the alert management process aids in understanding the sequential steps and decision points that are vital for maintaining patient health and safety.