Explanation of UML State Diagram

The UML state diagram illustrates the lifecycle of an alert in a patient monitoring system. According to the requirements, the title of the diagram is labeled in the top-left corner, and the initial state is represented by a solid black circle, indicating the system's continuous monitoring of patient data. When the patient data meets specific threshold criteria, an alert is generated using `generateAlert()` and sent to both monitoring screens and mobile devices, both utilizing `criticalInformation()`. This transition is crucial as it filters out normal readings and focuses on critical situations needing attention.

The way doctors acknowledge the alert depends on the situation. If it's through monitoring screens, they will acknowledge it by clicking (`Clicking()`). If the doctors are using mobile devices, simply opening the device (`openDevice()`) will stop the alert ensuring that the doctors can see the alert.

If the issue is resolved, the system can either automatically or manually turn off the alert. This means that if the patient's own health data returns to a normal state, the alert will automatically stop. Alternatively, if a doctor assists the patient and the patient recovers, the doctor will manually stop the alert. This bifurcation allows flexibility, accommodating both automated systems and manual interventions by staff.

Therefore, this UML state diagram presents a comprehensive and responsive hospital alert management system.