Integrated Cloud-based Solution

for Clinical Information Management

Overview

The tablet application aids in clinical data capture, covering all aspects that require attention during a medical procedure. The application contains features that help log data pertaining to vital signs, medications, and clinical events. The HIPAA/HITECH compliant app significantly improves staff utilization, OR efficiency, billing process, and OPPE metrics.

Client Profile

Our client is a leading single specialty anesthesia services management company in the United States. They provide perioperative support and comprehensive clinical anesthesia services.
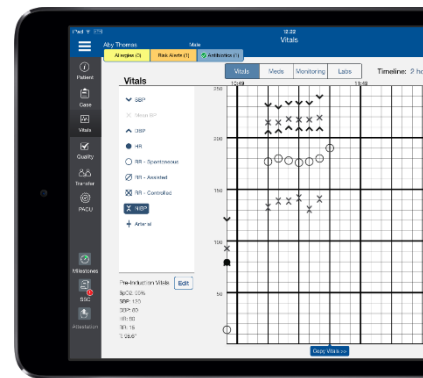
Business Requirement

There was a need for a digital solution that would enable anesthesiologists to access and capture data more efficiently during medical procedures. The ideal solution would encompass key areas such as registry (case schedules, assignments, reconciliations), clinical data capture, and patient safety (decision support, risk alerts, allergy notifications). The proposed solution would replace paper forms and significantly reduce time taken for data consolidation and bill submissions.
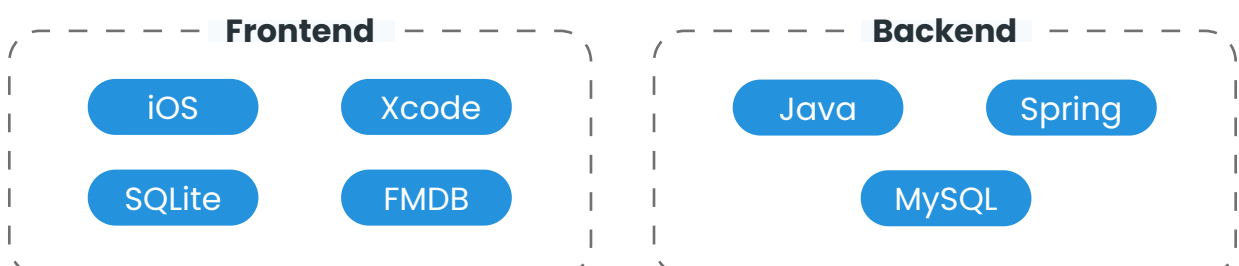
Solution

A tablet app that facilitates digital entries during medical procedures involving anesthesia. The iPad app lists medical cases assigned to a physician on a daily basis and helps in reconciliation of cases performed against the registry. Data entered using the app is synced to the backend server at regular intervals.

Key Features

❖ Digitization of medical data:

- ○ Patient information such as risks, allergies, and consultation history

- ○ Case details such as team info, surgical procedures, and diagnosis

- ○ Medications, fluids, and other clinical events

❖ Capture events such as complications at any stage (intra-OP, PACU or post PACU)

❖ Bluetooth transfer of cases between providers

❖ Feature to timestamp milestones in a procedure

❖ Attestation to replace signatures on records

❖ Break feature to assign case to another provider

❖ QR code scanning to easily identify patient records and cases

❖ Print option via AirPrint; search feature

❖ Templates to apply pre-populated values for new cases

❖ Surgical safety checklist; offline mode

❖ 'Soft close' option before billing where providers can add mandatory information and events to be captured before case is closed

Tools and Technologies

Frontend

- iOS
- Xcode
- SQLite
- FMDB

Backend

- Java
- Spring
- MySQL

Business Benefits

❖ Streamlined information essential to the accuracy of billing, reporting, and compliance led to improved clinical outcomes

❖ Improved accessibility to data resulted in a significant increase in productivity, efficiency, and accuracy

❖ Automated paperless billing process ensured legible documentation and greater accuracy in coding and billing

❖ Eliminated missing claims and ensured capture of all billable events