A series of case studies illuminating how HIT professionals are using HL7°FHIR° to improve and advance modern healthcare





EMORY HEALTHCARE

Part of Emory University, Emory Healthcare is the largest health care system in the state of Georgia, USA. Many of the physicians are also researchers and educators—which means they take part in valuable clinical trials and help develop new and better ways to prevent and treat disease.

RIMIDI

Created by doctors, for doctors, Rimidi is a cloud-based software company that enables personalized management of health conditions across populations. As early pioneers of SMART on FHIR®, Rimidi's apps work directly within leading EHRs—no separate sign in, no workflow disruption, better clinical efficiency. Rimidi combines patient-generated health data from connected devices or patient reported outcomes measures with clinical data to drive patient-specific clinical insights and actions through embedded clinical decision support cards.

Goal

• To institute a more efficient way to collect, track and report surgical procedure data and Patient Reported Outcome Measures (PROMs) for orthopaedic surgery procedures at Emory Healthcare



FHIR opens up the opportunity to bridge the communication between patients and clinicians outside of the hospital building, enabling a modern, seamless experience for patients while still working within the provider's existing workflow.

> — Sistania Bong, software engineer and project lead, Rimidi

Opportunity

• To leverage HL7®FHIR® interfaces to the Cerner EHR to develop a pair of patient and surgeon-facing mobile apps to securely collect and report on surgical detail and PROMs through an efficient and engaging user experience



Project

Rimidi partnered with Emory Orthopaedics to develop a pair of FHIR-enabled apps for tracking surgical procedure data and for collecting patient reported outcome measures for patients undergoing orthopaedic surgery at Emory Healthcare. Via a FHIR-enabled mobile app, surgeons are able to view surgery and clinic schedules, document surgical detail, follow PROMs, conduct post-operative follow-up calls, and search their surgical outcomes database.

In a patient interface to the mobile FHIR app, patients can report post-surgical pain, nausea and pain medication usage as well as allow physical therapy professionals to report key measures during physical

therapy sessions. The app allows patients to follow their recovery progress.

Integrating to Emory's Cerner EHR using FHIR has allowed for development of secure mobile apps, enhanced data collection and a delightful user experience.

The FHIR resources used include:

- Patient
- Practitioner
- Appointment
- MedicationStatement







Provider app

Patient app

Progress

Participants in user acceptance testing report that both provider and patient apps effectively meet the needs of all parties, and bring a very modern user experience to healthcare apps that are usually outdated. Both apps will be launched at multiple subdivisions within the Department of Orthopaedics at Emory in the first half of 2021.



These apps give us a modern and efficient way to document surgical details and collect patient outcomes to drive continuous clinical improvement.

 Michael Gottschalk, MD, orthopaedic surgeon Emory Orthopaedics & Spine Center





Health Level Seven international 3300 Washtenaw Ave. Suite 227 Ann Arbor, MI 48104 USA P: 734.677.7777 E: hq@HL7.org W: HL7.org