

SETTING THE WORLD ON FHIR®

Published by HL7® International, a not-for-profit organization, Fast Healthcare Interoperability Resources (FHIR®) is a standard for exchanging healthcare information electronically

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

HEALTHPARTNERS INSTITUTE

HealthPartners Institute is part of HealthPartners, the largest consumer-governed, non-profit health care organization in the nation with a mission to improve health and well-being in partnership with members, patients, and the community. The Institute is one of the largest medical research and education centers in the Midwest.

Goal

To de-implement opioid prescribing by dentists while implementing effective nonopioid analgesics following dental extractions

Opportunity

To develop an EHR-based clinical decision support tool using HL7® FHIR® to assist dentists in providing personalized pain management for patients without resorting to opioids when a safer alternative would suffice



CASE STUDY



A CDS tool that saves time by bringing all relevant patient information and current evidence to the provider in one interface has the potential to improve clinical decision making as well as patient outcomes.

— Dhavan P. Pasumarthi, supervisor of research/web development, HealthPartners

Project

Overdose deaths from prescription opioid analgesics are a continuing crisis in the United States. Notably, opioid analgesics are among the drugs most frequently prescribed by dentists. An estimated 5 million people undergo third-molar extractions in the United States each year, resulting in postoperative pain. Studies show that, in most cases, the combination of ibuprofen and acetaminophen is an effective alternative to commonly prescribed opioid analgesics for the management of post-extraction pain. Nevertheless, many dentists routinely prescribe opioids after dental extractions.

To address potentially inappropriate opioid prescribing, HealthPartners developed a provider-facing, point-of-care, clinical decision support (CDS) tool within an EHR that uses the HL7® FHIR® standard. The CDS tool is designed to assist dentists in providing their patients individualized pain management other than opioids for postoperative pain management following dental extractions.

This CDS tool provides pertinent patient health information, patient education for pain management, and personalized clinical recommendations. It provides evidence-based information and guidance in the form of prompts and reminders to inform decisions about prescriptions when eligible procedures appear in the patient's chart at the point-of-care.

Progress

The CDS tool incorporates novel design features that will save significant time, ensure good fit into the dental care workflow, and facilitate the delivery of personalized care by providing the patient's relevant medical history, informing treatment decisions, and promoting more evidence-driven pain management following tooth extractions. The implementation project has the potential to drive a major improvement in prescribing practices and the management of pain following tooth extractions in the field of dentistry. As new strategies for pain management are ready to be introduced into clinical practice, they can be readily integrated into this platform in a timely and transparent manner.

