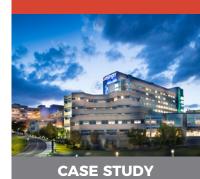
A series of case studies illuminating how HIT professionals are using HL7°FHIR° to improve and advance modern healthcare





### GEISINGER AND THE STEELE INSTITUTE FOR HEALTH INNOVATION

Geisinger is committed to making better health easier for the more than 1.5 million consumers it serves. Founded more than 100 years ago by Abigail Geisinger, the system now includes 13 hospital campuses, a 600,000-member health plan, two research centers and the Geisinger Commonwealth School of Medicine. With 32,000 employees and 1,800 employed physicians, Geisinger boosts its hometown economies in Pennsylvania and New Jersey by billions of dollars annually.

Its Steele Institute for Health Innovation acts as an accelerator and an incubator for new ideas with a goal of not only improving health, care delivery, patient experience and affordability, but of also leading the nation in building transformative, scalable, measurable and sustainable solutions for the healthcare industry.

#### Goal

• To optimize Geisinger's Family Care Application (FCA), which was designed to enable family caregivers to efficiently and effectively communicate with the care team and their dependent to coordinate care. FCA was developed through a collaboration between Geisinger and Merck, Sharp & Dohme Corp.

# **Opportunity**

• By converting the FCA's application programming interface (API) from standard electronic health record (EHR) web services to HL7® FHIR® services, Geisinger enabled the app to pull data from a wider range of sources.



The Family Caregiver Application enables our team to create a more personalized experience with each patient during a very difficult time.

- Rajiv Panikkar, MD, Chair of the Geisinger Cancer Institute



## **Project**

The idea for FCA was conceived through scanning the market environment for technology needs for family caregivers and speaking with patients, caregivers and members of the healthcare team. FCA was ultimately developed for, and tested by, caregivers whose loved ones were receiving care for cancer. Because many of the patients were in advanced stages of the disease, they couldn't always communicate effectively with their caregivers or health providers. The app made it easy for everyone to have important information at their fingertips. It also included personal facts such as pets' names, hobbies and favorite vacations to help healthcare providers better connect with the



people they were caring for. The app also combined disparate data systems into one readable and easy-to-understand format. After its HL7 FHIR conversion, the app was able to pull data from a greater range of sources, so caregivers were given access to more of the important information they need including:

- Primary healthcare partner contact information
- Calendar of appointments
- Patient-managed medication scheduler
- Healthcare team member names

- Care partner names
- Provider notes
- Journal-like feature

The FHIR resources used included data from the patient, relatives, encounter notes, practitioner, care plan, care team and medication (including statement and order) resources. Over 45 FHIR data elements within identified FHIR resources are utilized throughout the application.

### **FHIR Solution**

Once the improved version of FCA has been thoroughly tested in a live clinical setting it can be adapted for other departments within Geisinger with the goal of someday being shared with other health systems.



We are able to engage with family caregivers on a deeper level by planning treatment appointments around important personal upcoming events and answer medical questions that the patient or caregiver may otherwise forget to ask during a scheduled appointment.

Rajiv Panikkar, MD,
Chair of the Geisinger Cancer Institute





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