Introduction

Today’s healthcare system faces a daunting challenge called “interoperability”. This is a hot topic and remains one of the healthcare industry’s challenges even after years of various government and private industry efforts to accelerate the ubiquitous exchange of clinical data. Clinical data exchange is fundamental to initiatives such as population health and value-based reimbursement.

Many different programs have attempted to increase interoperability – the ONC (Office of the National Coordinator) has published rules and incentives aimed at clinical data exchange, e.g. State HIE (Health Information Exchange) grants to build a nationwide infrastructure. While there has been success regionally, many healthcare communities struggle to exchange clinical data.

Today, leaders are looking for a solution that is easy to use and less costly. Many health information technology (HIT) leaders believe FHIR® – Fast Healthcare Interoperability Resources (hl7.org/fhir) is the standard that we need to accelerate interoperable health records. Much of the enthusiasm surrounding FHIR is due to its architecture. FHIR is an attractive solution because it is based on modern web services that are widely used, builds on existing HL7 and CDA (Clinical Document Architecture) standards and focuses on simplifying implementation and usability.

Currently, clinical data exchange is based on C-CDA, or Consolidated Clinical Document Architecture. C-CDA is designed to transfer entire documents representing the patient record held by a physician or facility. Obviously, a document containing a complete clinical record can be lengthy and a practitioner might have difficulty finding the exact data needed, e.g. allergies. Because FHIR is a modular standard, it is much simpler to receive only, and specifically, the piece of information requested. One proof point, HHS has included FHIR as an emerging standard in its 2016 Interoperability Standards Advisory.
Four Key Use Cases

1. **Emergency Notifications (FHIR Track: Patient)**

   ![Diagram of Emergency Notifications]

   **Basic Patient Management** – Fetching the patient information and populating the data in the EMR system. This includes patient admit/discharge messages with payers sending alerts to providers.

   **Value** – Close the loop on patient care to improve care coordination and reduce risk of value-based reimbursement.

2. **Eligibility Verification (HL7 Track: Financial Management)**

   ![Diagram of Eligibility Verification]

   **Financial Resources** – Mapping XML request/response to an X12 transaction to claims system.

   **Value** – Modernize the claim processing process to use emerging standards. Achieve format independence and reduce the cost to connect partners.

3. **New Payment Models (HL7 Track: Quality Measures)**

   ![Diagram of New Payment Models]

   **Measures and Library** – Set of measure definitions, which work in conjunction with standard clinical resources - Patient, Observation, Encounter, Practitioner to make Provider evaluations.

   **Measure Report** – FHIR resource that contains information about population and quality value for a given provider against the population. This allows for alternative payment methods, driven not by the volume of care, but by the quality of care.

4. **Prior Authorization, Eligibility, Attachments (HL7 Track: SDC)**

   ![Diagram of Prior Authorization, Eligibility, Attachments]

   **Structured Data Capture** – Prior authorizations and eligibility requests via FHIR questionnaire forms. Use the Edifecs engine as a workflow engine to power document exchange across platforms, including mobile devices.

   **Value** – Simplify the administrative process for providers and patients. Reduce the time to fill out forms and obtain approval.

Delivering Real Value

FHIR is less document centric than the standards in use today. FHIR uses modules called ‘Resources’ allowing implementers to work with building blocks (Resources) and construct unique yet standardized conversations and solutions. For example, laboratories may be interested in eligibility and prior authorization and therefore, do not need a full clinical record for their workflow. Care coordinators may be interested in recent events (such as admit/discharge). Using a less complex architecture enables organizations to compose a set of FHIR resources that meets their unique needs without the investment in infrastructure required by real-time orchestration engines. FHIR makes it possible for physician practices and patients to participate in health data exchange on a footing with the most forward thinking health systems. FHIR uses communication protocols supported by most HIT solutions: mobile phone apps, cloud applications, EHRs in large institutional healthcare providers, and many more.

Partner for Success

Edifecs invites you to join us as we work to bridge connections to increase healthcare partnerships to improve outcomes and reduce costs. Edifecs delivers an industry leading integration engine tailor made to broker standards-based information exchange. We are seeking partners to pilot and build cost-effective interoperable solutions that address real-world needs such as prior authorization and care coordination. We offer a free testing environment to help your organization explore FHIR resources. Is FHIR the future of interoperability? Make your own assessment. Contact us at info@edifecs.com.