PRECISIONOCR

WHITEPAPER

How to Turn Unstructured Documents into FHIR to Inform Clinical Care

Why FHIR

The modern approach for data interoperability

Fast Health Interoperability Resources (FHIR) provides an interoperability specification for the efficient exchange of healthcare information. The FHIR standard is an open standard developed by the non-profit Health Level Seven International (HL7). The goal of the standard is to make a patient's electronic health records available, discoverable, and understandable.

Traditional data structures face the following hurdles:

- **Rigid data** - doesn't allow you to represent new data elements from other data sources or satisfy new requirements as your needs change
- **High administrative burden for clinical care team** - creating specific documents for specific quality measures
- **Lack of ability to build and innovate** - previous data structures were not designed for clinical data making it hard to build any new healthcare technology strategies
- **Continue to reinforce siloed structure** - we saw during the pandemic how appropriate agencies were not able to communicate with healthcare organizations or other stakeholders

Ultimately, these challenges have created a tedious medical document workflow that requires a number of expensive staff to navigate. Doctors must either pay for these staff to update their EHRs manually or deliver care with limited patient information.

It Is Time To Update Your Workflows For the Better

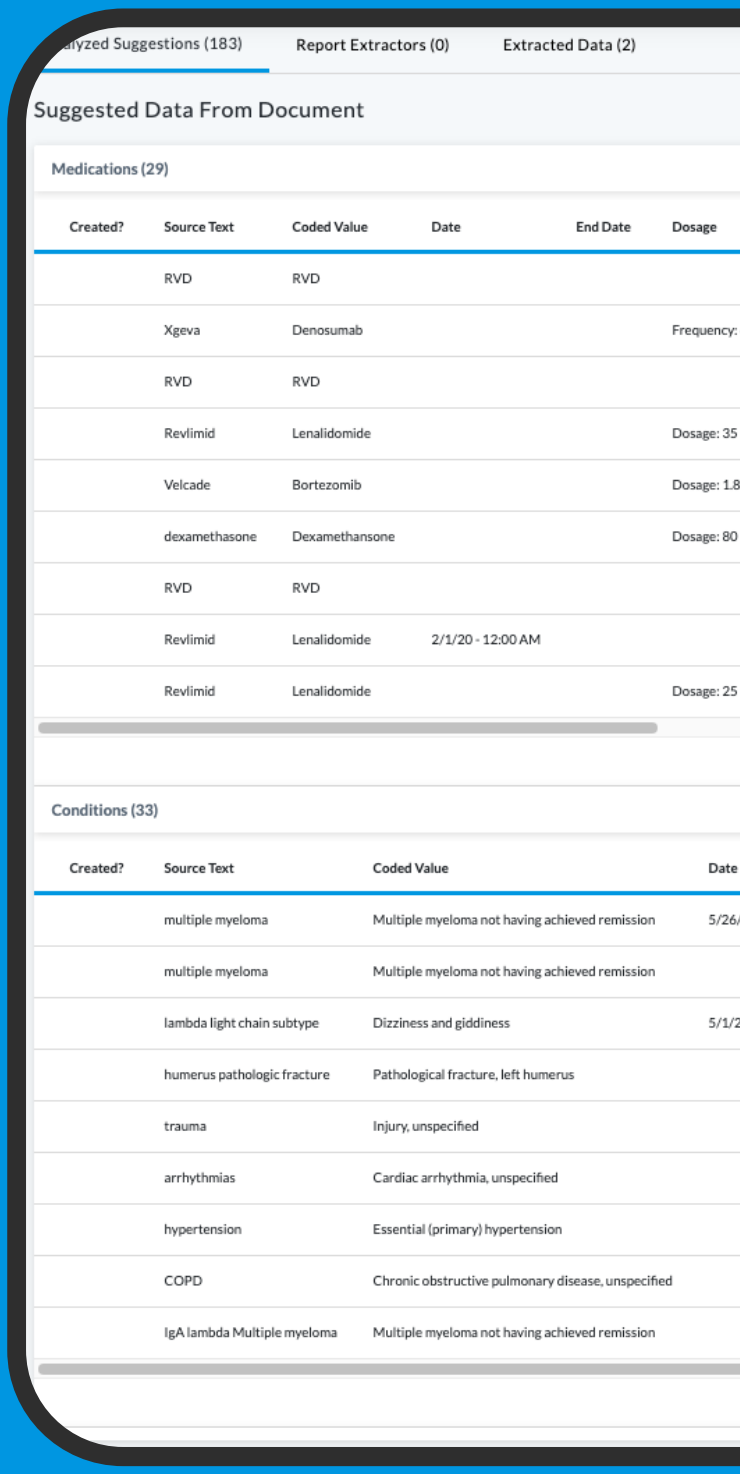
FHIR is unique because it has been designed over many years by a large group of health data professionals to be a single data format that can encompass all of the health and medical data about a person. FHIR provides a standard for coding systems and data representations that allows you to harmonize and use data from disparate sources. This allows for:

- An accurate, holistic patient record
- A dynamic and adaptable data infrastructure
- A shared language and platform between healthcare organizations, patients and private industries

Converting Unstructured Documents Into FHIR

Roughly 80% of healthcare data in electronic health records is unstructured. Most clinical teams will get pages and pages of these documents and spend countless hours reviewing and manually typing relevant information into their EHR. This can delay and impact patient care.

LifeOmic has developed a powerful Optical Character Recognition (OCR) web-based tool called PrecisionOCR that uses the latest in Natural Language Processing (NLP) and machine learning (ML) to take unstructured documents and convert them to the FHIR standard. It then provides ongoing analysis and visualization tools within the Precision Health Cloud that can operate on FHIR resources of any type and shape, so you can answer questions about your data regardless of the data source.



PrecisionOCR leverages many data types with FHIR, including:

- **Lab Values**
- **Medications and Dosages**
- **Medical Conditions**
- **Medical Procedures**
- **Associated Dates**
- **Identifiable PHI**

Commonly Used Documents

- **Lab Reports**
- **Medical Faxes**
- **Clinical Notes**
- **Medical Imaging Documents**
- **Patient Referral Files**

Because of this data output, your data is compatible with any EHR while also providing the option of an end-to-end analytics platform.

Security

LifeOmic PrecisionOCR and Precision Health Cloud is HIPAA-compliant, SOC 2 Type II Certified and HITRUST CSF Certified. Granular access controls allow you to determine who can access patient information. PrecisionOCR even allows for PHI redaction in order to anonymize when preferred.

Just like the FHIR standard. PrecisionOCR was built for **clinical data.**

How PrecisionOCR Can Inform Clinical Care

Clinical Workflow Optimization - Built for the non-technical clinical team to streamline manual chart review process to better understand the patient narrative

Reduce Adverse Events - With built-in ontologies, PrecisionOCR can detect important information such as medications or previously diagnosed conditions

Improve Quality Management - Rule-based system to automatically extract patient medical data and characterize concordance between clinical sources

Modernize Your Workflow with PrecisionOCR

LifeOmic PrecisionOCR can convert your unstructured documents into FHIR today.

You can now quickly harness the power of complete patient data no matter the original source.

Because it is cloud-based, deploying our platform across your institution takes minutes, not months. Let us help you get started today!

Visit LifeOmic.com/Products/Precision-OCR to schedule a demo.

PRECISIONOCR