Mapping Electronic Lab Reports in HL7 v2 to OMOP CDM.

HL7 v2 is converted to FHIR, then submitted to OMOPonFHIR to be mapped to OMOP CDM.

Result: HL7v2 \(\rightarrow\) FHIR

INTRODUCTION:
- HL7 version 2 (HL7v2) is a standard messaging protocol used between labs and health providers (or systems)
- OMOP CDM is used for data analytics
- FHIR is a standard for health interoperability
- HL7v2 \(\rightarrow\) OMOP using OMOPonFHIR allows observation/measurement data in the lab reports to be stored into OMOP CDM in real-time.

METHODS
- HL7v2 Parsing for Context
- Conversion to FHIR Message
- Submitting to OMOPonFHIR for Mapping to OMOP CDM
- Storing to OMOP CDM Database

RESULTS
- ELR Receiver developed for FHIR Conversion from HL7v2
- OMOPonFHIR upgraded to lab measurement mapping
- This approach used in Mortality Report Project funded by CDC

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Data Flow

HL7v2

ELR Receiver

FHIR Message

OMOPonFHIR

OMOP

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