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# CAREWare Fast Healthcare Interoperability Resources (FHIR) Application Program Interface (API) Development and Beta Testing Administrative and Technical Overview

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FHIR is a standard developed by the HL7 organization that allows third-party applications like CAREWare to query and extract clinical and demographic information from your EHR/EMR. FHIR has been singled out by the Office of the National Coordinator of Health Information Technology (ONC) through the 21st Century Cures Act as the clear, preferred, standardized method of moving personal health data across platforms (<https://www.healthit.gov/topic/standards-technology/standards/fhir-fact-sheets>).

Currently, administering and overseeing even the smoothest of data import projects in CAREWare can take a significant amount of time, from making secure connections to mapping data and ultimately to ensuring data quality. FHIR greatly eases the implementation process by leveraging standardized codesets used in EHRs and automatically identifying and mapping incoming data related to the RSR. Standard codesets include ICD-10 for diagnoses, SNOMED-CT and CPT for encounters and reasons for clinic visits, RxNorm for medications, and LOINC for tests such as CD4 counts and viral loads.

Another benefit of a CAREWare FHIR client will be how quickly it can be implemented for new interface projects because the FHIR API is a standard supported by most EMRs and EHRs.

The main focus of the CAREWare FHIR client is on regularly querying your EHR for RSR-related data, thereby increasing completeness of reporting and reducing double data entry. CAREWare will send FHIR data feeds into its enhanced PDI system that is now configured to recognize standardized coding system values (outlined above) and map those to RSR data fields. Since FHIR enables CAREWare to query the data in a standard way, other means of pulling data out of your EHR, like writing reports and making CSV files for import into CAREWare, can be reduced or eliminated altogether.

The CAREWare FHIR client is currently under development using limited test or “sandbox” data provided by a large commercial EMR. Once it's ready for testing with real data, a CAREWare FHIR App will be available through your EHR. We recommend

using this time—while the FHIR Client is being developed—to check with your administration to make sure that your EHR version and license can use the CAREWare FHIR App. jProg can assist with answering any questions that may come up from your administration or your EHR. Note that this administrative step will likely differ across sites and EHRs.

FHIR has been in development for a number of years and has gone through a number of versions; CAREWare is built for the current version, R4. To determine if your EHR and licensing supports the CAREWare FHIR App you can describe it this way: “The CAREWare FHIR App uses the R4 API and a backend public key exchange configuration with OAuth2 and JWT access tokens.” The CAREWare FHIR App will make periodic R4 FHIR queries for RSR-related data for EHR patients known to CAREWare.

The coming CAREWare FHIR App has features to configure setup and maintain a secure FHIR connection. It is configurable so that more data—above and beyond the fields required for the RSR—can be retrieved if desired. Forthcoming user documentation will provide more details.