Breast Cancer Data FHIR IG Proposal
Contents

- 1 Breast Cancer Data Logical Models and FHIR® Profiles
  - 1.1 Owning work group name
  - 1.2 Committee Approval Date
  - 1.3 Contributing or Reviewing Work Groups
  - 1.4 FHIR Development Project Insight ID
  - 1.5 Scope of coverage
  - 1.6 IG Purpose
  - 1.7 Content location
  - 1.8 Proposed IG realm and code
  - 1.9 Maintenance Plan
  - 1.10 Short Description
  - 1.11 Long Description
  - 1.12 Involved parties
  - 1.13 Expected implementations
  - 1.14 Content sources
  - 1.15 Example Scenarios
  - 1.16 IG Relationships
  - 1.17 Timelines
  - 1.18 When IG Proposal Is Complete
  - 1.19 FMG Notes
Breast Cancer Data Logical Models and FHIR® Profiles

Owning work group name
Clinical Interoperability Council

Committee Approval Date
CIC approved the FHIR IG proposal on 3/7/2018.

Contributing or Reviewing Work Groups
Clinical Information Modeling Initiative (CIMI)

FHIR Development Project Insight ID
1363

Scope of coverage
The breast cancer data implementation guide covers oncology-specific data necessary support breast cancer treatment and research, focusing first and foremost on data driving clinical decision-making for medical and surgical oncologists. The implementation guide is expected to incrementally cover a wide variety of clinical domains (e.g. anatomic pathology, radiology), while supporting secondary data use in for clinical research, cancer registry reporting.

The first iteration of this guide is focused on breast cancer staging. Staging information is largely driven by the American Joint Committee on Cancer, which is used in the US; hence, the initial target of the IG is the US Realm.

IG Purpose
The purpose of this implementation guide is to provide detailed clinical models represented using FHIR logical models, and FHIR Profiles rendering those clinical models that are required to support reliable and consistent capture and exchange of interoperable medical records in the oncology domain. Applications such as clinical decision support, clinical quality measures, evidence-based and precision medicine all require a standardized specification for computable data elements (aka clinical models). This implementation guide will provide FHIR-based representations of standardized oncology data to support these applications.

Content location
We are in the process of including the content into the HL7 github repository. The current build of the IG is located at [1].

Proposed IG realm and code
us/breastcancer

Maintenance Plan
The CIC WG is aware and willing to maintain the content in the future. Among participants, at least MITRE and PenRad are committed to the maintenance of the content.

Short Description
This IG contains a subset of logical models for breast cancer focused on data elements used for breast cancer staging. FHIR profiles are provided as an example physical representation of the logical models. Terminology bindings are preliminary, and in some cases, defined in terms of local codes only.

Long Description
The first iteration of this guide is focused on breast cancer staging. This IG defines logical models and FHIR profiles for data elements that are either directly or indirectly used in the staging of breast cancer. The American Joint Commission on Cancer 8th Edition Staging Manual (AJCC-8) defines the elements used in staging breast cancer. These include the traditional TNM staging components (anatomic staging), as well as other factors that are known to influence the prognosis of breast cancer patients, including, among others: tumor grade, hormone receptor status (progesterone and estrogen), as well as human epidermal growth factor 2 (HER 2) status.
Involved parties
This IG is being created through an informal collaboration of wide range of organizations and individual contributors that are part of the Cancer Interoperability Group, which includes representatives from the HSPC, AJCC, NCCN, CiiC, ACS, various health IT vendors, among many others.

Committed organizations include the MITRE Corporation and PenRad.

Expected implementations
MITRE’s Standard Health Record Collaborative and PenRad.

Content sources
Specifications consulted for the development of this IG include:

- American Joint Committee on Cancer (AJCC) Staging Manual (8th Edition)
- College of American Pathologists (CAP) Cancer Protocols
- North American Association of Central Cancer Registries (NAACCR) 2018 Site-Specific Data Items Manual (DRAFT)
- HL7 CDA R2 IG: Reporting to Public Health Cancer Registries from Ambulatory Healthcare Providers
- HL7 CDA R2 IG: Clinical Oncology Treatment Plan and Summary

In addition to sources specifically providing clinical content related to cancer and breast cancer, from a modeling perspective, CIMI models were also used as a source.

Example Scenarios

- Capture of staging information by providers in EHR systems
- Transmission of anatomic pathologic reports
- Reporting to cancer registries
- Reporting for clinical trials

IG Relationships
This IG is dependent on US Core.

Timelines

- For Comment May 2018 Ballot
- For Comment September 2018 Ballot
- STU May 2019 Ballot

When IG Proposal Is Complete
When you have completed your proposal, please send an email to FMGcontact@HL7.org

FMG Notes