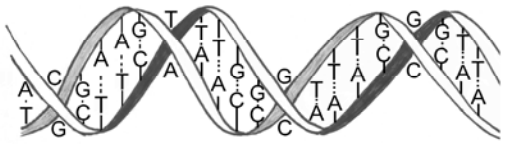

SPARKS OncDRS
Data Reference Guide

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Contents

System Overview

What is SPARKS?

The Synergistic Patient and Research Knowledge System (SPARKS) establishes an institutional informatics framework designed to accelerate scientific discoveries, and their translation into personalized medicine and clinical practice. SPARKS implements policies, standards, systems, and tools that facilitate the collection, integration, mining, analysis, and interpretation of biomedical data.

The SPARKS Oncology Data Acquisition Tools represent a key foundational component towards the realization of a self-serve application for investigators. The tools are designed to deliver aggregate counts of a target cohort, followed by detailed patient data extracted from DFCI patient databases. The SPARKS Oncology Data Retrieval Tools include:

- Data Warehouse of consolidated clinical and genomic data from DFCI and BWH
- Powerful Query Engine (SPARKS i2b2)
- Self-Service Request Workflow
- Capability to extract detailed patient data for further analysis

The clinical, operational, and genomic data sources for the DFCI data warehouse include:

- CORIS (CRIS, IDX, SunQuest)
- CCG D LIMS

Note:

Users of the system must have a rank of faculty or above at HMS, possess a PHS network account, DFCI paid, and CITI certified.

What is OncDRS?

One of the core objectives of the Dana-Farber Cancer Institute (DFCI) Synergistic Patient and Research Knowledge System (SPARKS) is to provide researchers with easier access to clinical and genomic data for hypothesis testing, cohort identification, and detailed data analysis. DFCI uses the Integrated Informatics from Biology to the Bedside (i2b2), renamed the Oncology Data Retrieval System (OncDRS), as a framework for providing easier access, and is modeled after Partners Research Patient Data Registry (RPDR).

Informatics for Integrating Biology and the Bedside (OncDRS) is an NIH funded National Center for Biomedical Computing based at Partners HealthCare System, Inc.

The i2b2 Center is developing a scalable informatics framework to bridge clinical research data and the vast data banks arising from basic science research, so, to better understand the genetic bases of complex diseases. This knowledge will facilitate the design of targeted therapies for individual patients with diseases having genetic origins.

The OncDRS system is a web-based interface with a collection of modular software components, which provide functionality such as access to clinical data repositories, data analysis, project management, ontology management, workflow, and data query.

The DFCI Query tool is an enhanced version of the i2b2 Query tool, which allows an investigator to obtain an aggregate number of patients that meet a set of user-defined criteria. Since the query tool only shows aggregate numbers of patients, researchers can develop queries without IRB review and patient privacy concerns. These queries provide aggregated information, and are designed to deny access to information about individual patients or physicians. All queries are audited by user name, time and date of query, and query text. Audit logs are available on all query activity.

The DFCI aggregated query tool extends the NIH-funded, open source, i2b2 project with the following features:

- Allow investigators to connect related data objects by primary cancer disease and episode
- Develop specialized data hierarchies for oncology data, such as histology, disease site, and recurrence
- Provide tooltips that show the full hierarchical path to a search concept or item
- Include Genomic information that is used in queries

Contact Us

For comments, questions, or help on SPARKS OncDRS, please contact us:

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Thank You !!

SPARKS OncDRS Clinical Research Informatics
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Learning About the Data

SPARKS OncDRS Database

The SPARKS OncDRS database is composed of over 200,000 patients, and over 11,347,000 records from patient encounters, labs and results, and other medical care. Adult patients have at least one outpatient service in a DFCI based clinic. The SPARKS OncDRS database is comprised of five data source systems:

- DFCI GE/IDX System is an integrated system combining patient scheduling, registration, and billing functionality. The IDX billing module is the source of visit diagnosis information in OncDRS, but the visit diagnosis are sourced from a physician electronic charge capture, lab, and other transactional systems. The source system type is Operations.
- Cancer Registry is a state-mandated service which reports the incidence and treatment of reportable cancer patients for Dana-Farber/Brigham and Women's Cancer Center and Children's Hospital Boston. The registry's current reference date is January 1, 2007, although data can be accessed from 1977. The source system type is CaReg.

  Key things to know about Cancer Registry data:

  - Cancer registry data are only available for approximately 40% of DFCI total patients, because data are only collected for patients who are treated or newly diagnoses at the Institute (see detailed cancer registry inclusion in Appendix 1).
  - The DFCI Cancer Registry doesn't actively follow patients after their initial assessment and abstraction, so recurrence and follow-up information will not be compete for many patients.
  - Cancer registry data are abstracted six months after a patient is initially diagnosed to ensure that all information needed for accurate diagnosis assessment is available. Therefore, cancer registry data will not be available for query until six or more moths from patient diagnosis.
- Clinical Research Information System (CRIS) application is designed to collect, store, and access comprehensive clinical, treatment, and outcomes data on cancer patients treated at DF/PCC. The source system type is CRIS.
- Sunquest General Lab System contains laboratory tests done at DFCI, and is the only source of lab information in OncDRS. The source system type is Operations.
- The Outpatient Pharmacy System contains only medications dispensed in DFCI infusion clinics, and is currently the only source of medications in OncDRS. The source system type is Operations.

The SPARKS ONCDRS Database system sources and system types are summarized in the following table.

Source System	System Type	Institution	Updated
GE/IDX	Operations	DFCI	Monthly
Cancer Registry	CaReg	DFCI	Monthly
CRIS	CRIS	DFCI	Monthly
Sunquest General Lab System	Operations	DFCI	Monthly
DFCI Pharmacy Department	Operations	DFCI	Monthly
CCGD LIMS - (Demonstration Only)	Research	DFCI	As new data are available

Data is organized by source system for several reasons. It is too complex to try to integrate data from the different systems. There are a few harmonized elements. Consider the following examples:

- If you choose medications only from CRIS, in most cases, the CRIS medications will have complete clinical information. With Operations medications, you will not receive complete clinical information.
- Collection rules, context, granularity, and timing of visit diagnosis and cancer registry diagnosis are extremely different.

Data Concepts

Episodes

An episode, a distinct occurrence of a primary cancer, extends from the initial diagnosis date through all care administered for that disease occurrence. A patient may have multiple episodes of the same disease. For example, cancer located in the left and right breasts and separated by six months is considered a different episode. Any occurrence of a different cancer disease is considered a distinct episode. For example, if a person has Ovarian cancer and develops Leukemia, both are considered separate episodes.

The Cancer Registry and some CRIS data can be linked by episode of disease by selecting the same episode check box.

Note:

Linking only occurs within a given source system.

So, you check the **Same Episode** box, if all selected disease episode-based objects, are associated with one specific episode (disease occurrence) for the patient. For example, consider a query with the following criteria:

- Ca Reg Diagnosis= Breast Malignant Neoplasm, and
- Ca Reg Path Group Stage = 3, and
- Ca Reg Survival Months = 0-24 months

For the records in the following table, if you want the Same Episode, only the patient with Id = 2 is selected. Not selecting the Same Episode allows the conditions to be met for any episode. Based on the records in the following table, patients 1 and 2 are selected if any episode is allowed.

Patient Id	Episode of Ca	Group 1 Ca Reg Diag (site & behavior)	Group 2 Path Group Stage	Group 3 Ca Reg Survival (months)
1	2/28/1999	Breast Malignant Neoplasm	1	70 Months
1	10/05/1999	Ovarian Malignant Neoplasm	3	38 Months
1	12/15/1999	Lung Malignant Neoplasm	2	14 Months
2	12/30/1999	Breast Malignant Neoplasm	3	20 Months

Normally, you check the **Same Episode** checkbox when you do queries for a single disease, because all the data items selected are from the same disease. For example, you want all Breast Cancer patients with Stage IV Cancer.

You do not check the **Same Episode** checkbox when you do queries across diseases. For example, you want all patients who had prostate and testicular cancer. This will never occur on the same episode.

Standard Coding System

The clinical vocabulary that resides in SPARKS OncDRS was partially built using terminology from several standard coding systems. These codes are used to search for a particular term when searching by code in the Find Terms View. The following table contains some coding examples from different coding systems.

Coding System	Function	Maintainer	Example
International Classification of Diseases, 9th Revision - ICD-9	Primarily used for disease surveillance, immunization rates and environmental monitoring.	National Center for Health Statistics (NCHS) and Centers for Medicare and Medicaid Services (CMS)	Code: 414.9 Desc. Chronic Ischemic Heart Disease, unspecified
Logical Observation Identifiers Names and Codes - LOINC	Primarily used for Clinical Health Information (CHI) such as laboratory and clinical test results, history and physicals, discharge summaries, operative notes, tumor registry and nursing observations.	Licensed and maintained by Regenstrief Institute.	Code: 13969-1 Desc. CPK-MB
National Drug Code - NDC	Universal product identifier for drugs intended for human use. Drug products are identified and reported using the NDC.	Maintained by the Food and Drug Administration (FDA).	Code: 12783-*178-87 Desc. Bristol-Myers Squibb, Pravachol, 20 mg tablets
Unified Medical Language System - UMLS	A comprehensive thesaurus and ontology of biomedical concepts.	Maintained by the National Library of Medicine	Code: C0001403 Desc. Addison's Disease

Data Organization

The SPARKS OncDRS data is hierarchically organized. The disease data can be organized by cancer disease, cross disease of both. Within the OncDRS database, the data has the following organization:

- Operations data that is not associated with a specific disease
- CRIS and Cancer Registry data are:
  - Always associated with a disease and always provide access by disease
  - Not always associated by a cross disease access, because some data types are too specific to a disease, for example, staging
  - Being developed as key cross disease categories such as – Cancer Registry Histology

When doing queries for the data:

- Use by disease categories when doing queries related to one disease. For example, you want to find Breast Cancer patients with Stage 3 or Stage 4 disease, who survived less than two years.
- Use cross disease categories when doing queries across disease. For example, you want to determine if patients with clear cell histologies have similar genetic mutation profiles.

Query Tool Data

Patient Information

Patient information is a data category that groups concepts with other similar items in a hierarchical-tree structure that you can expand to view all the concepts in the associated Patient Information category.

Patient Information provides the following groups of concepts:

- Conse nt - CRIS
- Demographi cs

Consent

Consent refers to the patient response to the specific questions related to the protocol for a research study. Patients at Dana-Farber may be approached to participate in research studies.

Each disease group requires explicit consent for performing specific activities with patient data and with specimens. The consent questions are part of Dana-Farber/Harvard Cancer Center/Institutional Review Board (DF/HCC IRB) disease-specific protocols created to support research data and specimen group, which have at least one collection protocol number that is generated by the IRB. These protocols have specific questions that include:

- Clinical Data Consent - does the patient consent to the data collection for the particular protocol
- Re-contact for Future Consent - can the patient be re-contacted about future studies
- Specimen Routine Blood - does the patient consent to the collection of blood samples during routine clinical care

The Clinical Research Information System (CRIS) application captures the protocol (prot) and number, consent questions, and patient responses for each disease groups. You can drill down to the individual responses for each question, and select Consented as applicable to the specific query. Patient consent contains the following folders and concepts:

Query Concepts (Items)

Folder/ Concept	Description	Source(s)
Consent Question Response	Patient response to consent questions (.i.e.- Consented, Declined and No answer)	CRIS

Navigation Folders

Folder/ Concept	Description	Source(s)
Disease	Navigation Folder for the disease group that the consent is associated with, for example, Breast Cancer. CRIS data is captured for the following disease groups: - Breast Cancer - Gastrointestinal Cancer - High Risk Breast Cancer - Leukemia - Lung Cancer - Lymphoma - NHL (Non - Hodgkin's Lymphoma) - Ovarian Cancer - Prostate - Renal Cancer - Sarcoma	CRIS
Protocol	Navigation Folder for the DFHCC protocol that is associated with the consent	CRIS
Consent Question	Navigation Folder for the specific consent question associated with the select protocol. Only consent questions associated with the selected protocol will display.	CRIS

Demographics

The query item Demographics includes the fields Age, Education, Gender, Home Zip Language, Marital Status, Race, Religion, and Vital Status.

The GE/IDX, Cancer Registry, and Clinical Research Information System (CRIS) capture Demographics information. You can drill down to the individual concepts folders as applicable to your specific query. Demographics contains the following folders and concepts:

Query Concepts

Folder/ Concept	Description	Source(s)
Current Age in Years (in groups)	Groups patient age in years into commonly used groups such as 0-9, 10-1, 18-34.	GE/IDX, CRIS, Cancer Registry
Current Age Specific Ages	Age is calculated in years based on the difference DOB and the date of death if the patient is deceased and the last date OncDRS data was refreshed if the patient is alive. Harmonized death info described in item 13 below is used to calculate age. This concept allows selection of individual ages, such 30, 31. You're not allowed to select specific ages over 85 because these are considered to be identifying from a HIPPA perspective.	GE/IDX, CRIS, Cancer Registry
Education Level	The patient's education level	GE/IDX
Gender	The patient's gender	GE/IDX
Home State	The patient's home state (based on home zip code)	GE/IDX
Home City/Town	The patient's home city or town (based on home zip code)	GE/IDX
Home Zip Code	The actual home zip code for the patient	GE/IDX
Language	The language(s) the patient speaks* If more than one language is specified in the source system, then each language will be stored separately.* If a patient has specified that they have multiple races or languages, then when they will be selected when any of those races or languages is selected in a query. So if a patient has specific that that they are Black and Asian, then they will be selected if either Black or Asian is chosen as a query item.	GE/IDX
Marital Status	The patient's marital status	GE/IDX
Race	The patient's racial background(s) . If more than one racial background is specified in the source system, then each race will be stored separately.* If a patient has specified that they have multiple races or languages, then when they will be selected when any of those	GE/IDX

	races or languages is selected in a query. So if a patient has specific that that they are Black and Asian, then they will be selected if either Black or Asian is chosen as a query item.	
Religion	The patient's religion	GE/IDX
Vital Status	The patient's vital status based on date of death. The three sources for death data in order of priority are 1. GE/IDX, 2. CRIS and 3. Cancer Registry. Possible values are Deceased or Presumed Alive. Death information comes to internal clinical systems, monthly social security death index updates and occasional NDI updates.	GE/IDX, CRIS, Cancer Registry

Initial Diagnosis

Initial Diagnosis information is a data category that groups concepts with other similar items in a hierarchical-tree structure. You can expand (+) by clicking the folder or the + symbol to view all the concepts in the associated Initial Diagnosis category.

Initial Diagnosis provides the following groups of concepts:

- Cancer Diagnosis
- M olecular Results
- Visit Diagnosis

Cancer Diagnosis

Cancer Diagnosis is collected by abstracting data from patient medical records into the DFCI Cancer Registry system. The following query items are available for cancer diagnosis:

- Histology
- Si te Detail
- Staging
- Survival

In general, cancer registry diagnosis is only collected on patients who are either treated with chemotherapy/radiation, or initially diagnosed at DFCI. In addition, cancer registry data is abstracted six months after a patient is initially diagnosed, so, cancer registry data is unavailable for query for six months after the patient diagnosis.

Reportable Cancer Diagnoses Collected by the Cancer Registry

The Cancer Registry collects all reportable histologies as outlined by the Massachusetts Cancer Registry of Patients, who were diagnosed and/or received part or all treatment at the facility. Some histologies, which are considered Reportable by Agreement, such as the facility elects to collect them even though they are not reportable to the state.

- All neoplasms with a fifth digit histology behavior code of 2 (malignant in-situ) or 3 (malignant invasive), excluding basal and squamous cell carcinomas of the skin and carcinoma in-situ of the cervix

- All central nervous system neoplasms (C70.0-C72.9) regardless of the behavior code – i.e. any benign, borderline, in-situ or malignant CNS tumors. This includes acoustic neuromas – schwannomas or neurilemmomas (9560/0) of the acoustic nerve (C72.4).
- Reportable by Agreement cases, which are collected but are no longer reportable to the state, such as:
  - Borderline malignancies of the ovary (C56.9) (5th digit behavior code 1):
    - Mucinous cystadenoma, borderline malignancy (8472/1)
    - Papillary cystadenoma, borderline malignancy (8451/1)
    - Papillary mucinous cystadenoma, borderline malignancy (8473/1)
    - Papillary serous cystadenoma, borderline malignancy (8462/1)
    - Serous cystadenoma, borderline malignancy (8442/1); (Cases diagnosed before 2001 are reportable)

The following information is uncollected and unreported:

- Consult-only cases, second opinions
- Follow-along only of patients diagnosed and treated elsewhere
- Cases diagnosed elsewhere, planning and management decisions made and recommended
- BWH-DFCI but treatment carried out elsewhere
- Class 6: Cases diagnosed and treated in a staff physician office (Urology, Dermatology) – no tissue processed by us
- Carcinoma in-situ of the cervix (all histologies with behavior code 2 diagnosed 1998 or later)
- Basal and squamous cell carcinomas of the skin (only)
- Neoplasms identified only by patient medical history
- Class 7: Pathology-only cases such as slide and specimen reviews, pathology report or pathology consult only
- Any non-Central Nervous System or non-intracranial benign or borderline malignancy neoplasm (5th digit behavior code of 0 or 1), except borderline ovarian neoplasms

For complete information on data abstracting roles for the SELECT ITEMS/CASE??, refer to the:

Cancer Registry web site.

Class of Case identified in the Cancer Registry

The Class of Case identified in the Cancer Registry divides registry data into two categories:

- Analytic data
  Analytic cases are Class 0, 1, and 2, and are reportable for all diagnosis years beginning in 1982.
- Non-Analytic data
  Non-Analytic cases are Class 3, 4, 5, 6, 7, 8, and 9. Class 3, 4, and 9 cases diagnosed during 1995, and thereafter are reportable; Class 5 are reportable for any diagnosis year of 1982 or later.

Note:

The registry is only required to submit cases for Class 0, 1, 2, 3, 4, 5, and 9.

The following table provides the appropriate the class descriptions.

Class	Description
Class 0	First diagnosed at reporting facility since its reference date*, and all the first course of therapy given elsewhere.
Class 1	First diagnosed at reporting facility since its reference date, and either: ◈ Received all or part of the first course of therapy at the reporting facility, or ◈ Never treated (e.g. patient refused treatment; elected watchful waiting).
Class 2	First diagnosed elsewhere, and either: ◈ Received all or part of the first course of therapy, or first course palliative care at the reporting facility after its reference date, or ◈ First course planning of therapy was done primarily at the reporting facility, and the planning facility chose to collect such cases.
Class 3	First diagnosed at another facility, and either: ◈ Entire first course of therapy was given elsewhere ◈ Patient was never treated (e.g. patient refused treatment; elected watchful waiting), or ◈ Unknown if treated. Cases often included here are patients diagnosed, and first course of therapy was completed elsewhere, and are now being treated at the reporting facility for disease persistence, progression, or recurrence.
Class 4	First diagnosed and first course therapy at reporting facility before its reference date.
Class 5	First diagnosed at autopsy in the reporting facility (the patient did not necessarily die at the reporting facility).
Class 9	Unknown

*__Reference date__: The start date after which all eligible cases must be included in the registry. This date is a reference point for many standards and activities of the Approvals Program of the American College of Surgeons, Commission on Cancer.

The DF/BWCC reference year is 2007.

The hierarchy for Solid and Liquid tumors is different. For Solid tumors, the hierarchy is based on Site and Behavior. For liquid tumors, the hierarchy is based on Morphology. The source of the data is from Cancer Registry.

You can drill down to the individual concepts folders as applicable to your specific query. Cancer Diagnosis contains the following folders and concepts.

Query Concepts (Items)

Folder/ Concept	Description	Source(s)
Specific Neoplasms	Example: Neoplasms of Breast	Cancer Registry
Behavior	The behavior of a tumor is the way it acts within the body. The fifth digit of the ICD-O-3 morphology code (after the slash) is the Behavior Code. A tumor can grow in place without the potential for spread is '0' or Benign; Uncertain whether benign or Malignant is '1' or Borderline Malignant; Malignant but still growing in place is '2' or In situ; Invading surrounding tissues is '3' or Malignant; Behavior codes 6 and 9 are not used in cancer registries. Example: Malignant (see additional details below (Behavior))	Cancer Registry
Cause of Death	Cause of Death is limited and minimal in the CR. Patients who were recorded as deceased by a cancer-related disease, represented about 3.91% of the total. More than 50% of patients deceased were unrecorded. For details, see Table Cause of Death.	Cancer Registry
Specific Histology	Example: Infiltrating duct and lobular carcinoma	Cancer Registry
Specific Site	The topology code indicates the site of origin of neoplasm; in other words, where the tumor arose Example Lower-outer quadrant of breast	Cancer Registry
Stage Groupings by Type	Stage groupings are Clinical, Path and Pedi Example Path T Stage	Cancer Registry
Specific Stage	Example Path T3B (see additional details below (Staging)	Cancer Registry
Specific ranges for survival	Example 13-24 Months	Cancer Registry
Clin T Stage	The T Element is used to describe the primary tumor's size and/or extension. The clinical T classification (cT) is based on information and evidence obtained before treatment. Please click here for more details.	Cancer Registry
Clin N Stage	The N Element identifies the absence or presence of regional lymph node metastases. Please click here for more details.	Cancer Registry

Clin M Stage	The M Element records the presence or absence of distant metastases (including spread to non-regional lymph nodes). Please click here for more details.	Cancer Registry
Clin Group Stage	The Stage Grouping indicates the anatomic extent of disease and groups cases which are expected to have similar prognoses. Please click here for more details..	Cancer Registry
Path T Stage	The T Element is used to describe the primary tumor's size and/or extension. Pathologic classification is based on information obtained before treatment and supplemented by additional evidence from surgery and pathologic examination of resected specimens. Please click here for more details. Please click here for more details	Cancer Registry
Path N Stage	The N Element identifies the absence or presence of regional lymph node metastases. Please click here for more details.	Cancer Registry
Path M Stage	The M Element records the presence or absence of distant metastases (including spread to non-regional lymph nodes). Please click here for more details..	Cancer Registry
Path Group Stage	The Stage Grouping indicates the anatomic extent of disease and groups cases which are expected to have similar prognoses. Please click here for more details.	Cancer Registry
Pedi Stage		Cancer Registry
Pedi Sys Id		Cancer Registry

Cause of Death from Cancer Registry

Death Cause Code	Death Cause Description	Patient Deceased Y/ N	Total	Percentage
1	Not applicable	Y	8365	9.37 %
2	Cancer-related	Y	3490	3.91 %
3	Other causes	Y	145	0.16 %
4	Cause unknown	Y	1429	1.60 %
5	Indirectly related to cancer	Y	523	0.59 %
9	Unknown	Y	27809	31.16 %
		Y	47486	53.21 %
			89247	100.00 %

Molecular Results

You can drill down to the individual concepts folders as applicable to your specific query. Molecular results contain the following folders and concepts:

Note:

Molecular Results included here are for demonstration purposes only!!

Visit Diagnosis

Visit Diagnosis is organized into two major categories:

- By body system such as Disease of the digestive system
- By disease type such as Neoplasms

These diagnoses are based on ICD-9-CM codes that are derived from GE/IDX Billing diagnosis.

The Major Diagnostic Codes (MDCs) are formed by dividing all possible principal diagnoses from ICD-9-CM into mutually exclusive diagnosis areas. The diagnoses in each MDC correspond to a single organ system or etiology, and generally are associated with a particular medical specialty. The MDCs are grouped according to principal diagnoses.

You can drill down to the individual concepts folders as applicable to your specific query. Visit Diagnosis contain the following folders and concepts:

Query Concepts

Folder/ Concept	Description	Source(s)
Diagnosis Category	Major categories, mainly by body system, such as Disease of the digestive system, or disease type, such as Neoplasms.	GE/IDX
Specific Diagnosis	The specific diagnosis within the Diagnosis Category (e.g. Carcinoma in situ of breast)	GE/IDX

Labs

Laboratory tests and test results are used as Query items in setting criteria for patient populations. Laboratory data is derived from SunQuest. You can select lab tests, as well as, result values and/or ranges of values to further define your patient cohorts. There are two types of lab tests available for query:

- Basic Metabolic Panel
- Complete Blood Count

You can drill down to the individual concepts folders as applicable to your specific query. Labs contain the following folders and concepts:

Query Concepts

Folder/ Concept	Description	Source(s)
Lab Test Category	Grouping of tests based on test type, either Basic Metabolic Panel or Complete Blood Count.	SunQuest
Specific Test Name	The specific test name searches by Lab values. Test can be constrained by the high/low flag set by the performing laboratory, or by the values themselves by dragging the test name to a Query Group panel , right-clicking test name, and choosing Set Value.	SunQuest
High/Low Flag	Selects patients who have had a lab result considered high, low or normal by the particular lab range protocols.	SunQuest
By Numeric Value	Selects patients by the user-defined value and operator; e.g. "cholesterol > or = to 180." Six operators available to user, including "between", "equal to" or "less than".	SunQuest
No Value	Default - Selecting no value for the test value selects all the tests irrespective of its associated value.	SunQuest

Medications

Medications, supplies, and diluents that are dispensed in DFCI, outpatient, infusion areas are collected in the DFCI Outpatient Pharmacy system. Only medications dispensed from the Outpatient Pharmacy system are accessed through the Query tool. Most of the medications dispensed are to treat cancer and symptoms related to cancer.

Medications are organized in categories by medical problem treated (Antineoplastics) and drug type (antibiotic, hormone). The following query items are available for medications.

Medications are derived from the DFCI Pharmacy System. Although the Pharmacy source system contains more than just drug orders (example: supplies and diluents).

Note:

You can query only on drugs that were ordered.

You can drill down to the individual concepts folders as applicable to your specific query. Medications contain the following folders and concepts.

Query Concepts

Folder/ Concept	Description	Source(s)
Medication Category	The category of drug, usually based on the medical problem treated. Example: Antineoplastics	DFCI Pharmacy
Medication Sub-Category	A sub-category based on the medical problem treated, or a drug type. Examples: ▪ Anti-ulcer ▪ Hormone	DFCI Pharmacy
Specific Medication Name	The specific medication name is based on the drug name. Example: erlotinib	DFCI Pharmacy

Recurrence

Recurrence information is collected in the Cancer Registry System based on the abstraction of medical records information. If a recurrence is noted when doing follow-up at BWH, the information is entered in the DFCI Cancer Registry system.

Note:

Cancer Registry does not actively follow patients for Recurrence data. If a patient has recurred approximately six months following the initial diagnosis date, the patient has Recurrence data in the Cancer Registry. Otherwise, Recurrence data depends on feedback from Brigham and Women's Hospital. As a result, the patient number with Recurrence data from the Cancer Registry is low.

You can drill down to the individual concepts folders as applicable to your specific query. The following query items are available for recurrence:

Query Concepts

Folder/ Concept	Description	Source(s)
Disease Site	Folder for recurrence by initial diagnosis disease site (e.g. Breast). There may be multiple folders of specificity within each disease site folder.	Cancer Registry
Progressed to Distant Site	A distant location in the body that contains recurrent or metastatic tumor cells from the cancer under study.	Cancer Registry
Progressed to Local Site	A local location in the body that contains recurrent or metastatic tumor cells from the cancer under study.	Cancer Registry
Specific Site of the progression	The specific site where the progression occurred (e.g. Bone)	Cancer Registry