

Using BigMouth – Registered user

Logging in to BigMouth

Open the URL <https://bigmouth.uth.edu/secure> in a web browser

For InCommons Federation Members - Select 'All Sites' under 'Group' section and select your respective organization under the under 'Organization' section. Click Select button. You will now be redirected to the authentication page. Please use your organization's username and password to login.

Select your home institution

The U.T. Houston CTSA service you are trying to reach requires that you authenticate with your home organization. Please either select it from the list below, then click 'Select', or you may use the search-as-you-type feature by typing a partial name into the search box below, then clicking 'Search'.

Please do not create a bookmark or favorite in your web browser on this page. This page is not part of the application you are accessing. You may create a bookmark/favorite after you complete the authentication process.

Enter organization name (partials ok):

Or choose from a list:

| Group | Organization |
|----------------------------|--------------------------------------|
| U.T. System Institutions ▲ | University of Messina |
| InCommon Federation | University of Miami |
| All Sites | University of Michigan |
| | University of Milano-Bicocca |
| | University of Minho |
| | University of Minnesota |
| | University of Miskolc |
| | University of Mississippi |
| | University of Missouri System |
| | University of Modena e Reggio Emilia |

Need assistance? Send email to support@uth.tmc.edu with a description of the problem.



Sign In

INTERNET ID

[Recover your Internet ID](#)

PASSWORD

[Reset your password](#)

Sign In

Login to Cohri.uth.tmc.edu



Get an Account

Find the University [Internet account](#) that's right for you.

BigMouth layout

i2b2 Query & Analysis Tool Project: COHRI UTH User: Krishna Kumar Kookal Find Patients | Analysis Tools | Help | Logout

Navigate Terms | **Find Terms**

- Axium
 - UTH
 - Demographics - 245976
 - Diagnosis - 13192
 - Forms - 23809
 - Odontogram - 241905
 - Perio - 20573
 - Procedures - 113671
 - Providers
 - COHRI
 - Demographics - 1178716
 - Dental Procedures - 517288
 - Diagnosis - 125862
 - Forms - 124866
 - Odontograph - 193163
 - [Perio - 0]
 - [Providers - 0]

Query Tool

Query Name: Forms@09:45:41

Temporal Constraint: Treat all groups independently

| Group 1 | | | Group 2 | | | Group 3 | | |
|---------------------|-------------|---------|---------------------|-------------|---------|---------------------|-------------|---------|
| Dates | Occurs > 0x | Exclude | Dates | Occurs > 0x | Exclude | Dates | Occurs > 0x | Exclude |
| Treat Independently | | | Treat Independently | | | Treat Independently | | |
| Forms - 23809 | | | | | | | | |

one or more of these AND drop a term on here

Run Query **Clear** **Print Query** 1 Group **New Group**

Previous Queries

- Forms@09:45:41 [6-26-2012] [kkookal@uth.tmc.edu]
- Perio@09:37:38 [6-26-2012] [kkookal@uth.tmc.edu]
- ABNORMALITIES O@11:37:28 [6-21-2012] [kkookal@uth.tmc.edu]
- Bleedin-Age@12:54:33 [6-2-2012] [kkookal@uth.tmc.edu]

Query Status

Finished Query: "Forms@09:45:41" [17.0 secs]
Compute Time: 14.7 secs

Number of patients for "Forms@09:45:41"
patient_count: 23809

Navigate Terms Tab: Users can manually lookup for terms by browsing through the hierarchy.

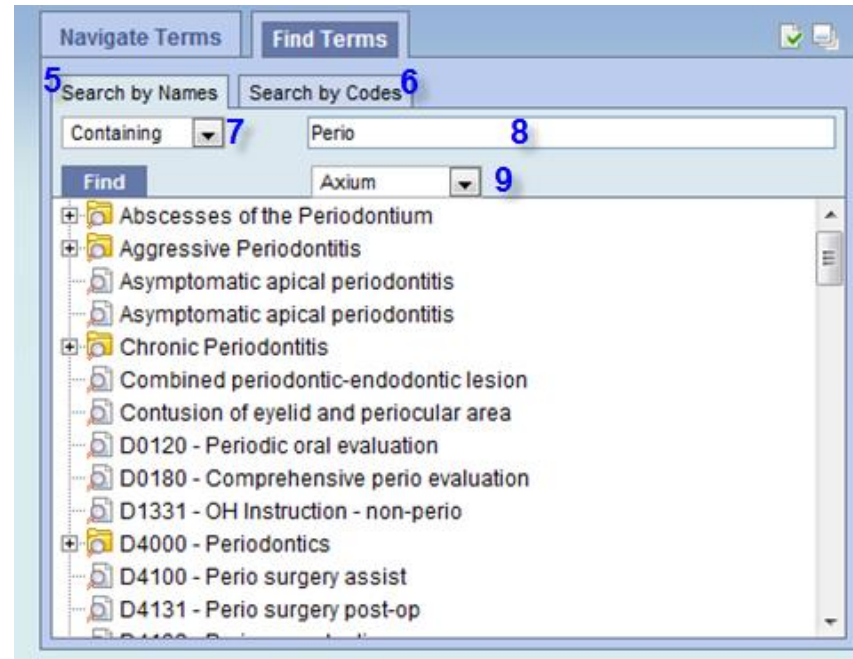
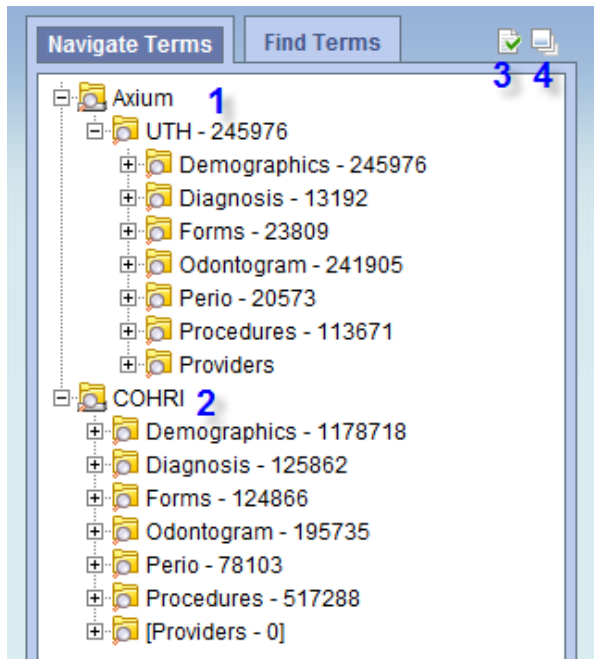
Find Terms Tab: Search concepts using a word.


Query Tool: Area where user build their question (query) by dragging and dropping concepts/terms from Navigate Terms/Find Terms tab.

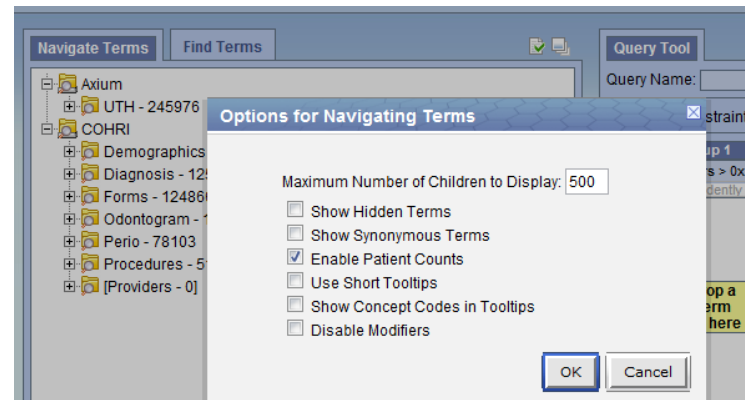
Previous Queries: Queries previously run by the logged in user.


Query Status: User can view the status of the current query. Once the query completes its execution, the patient count and other details are displayed here.

1. Navigate Terms/Find Terms Section



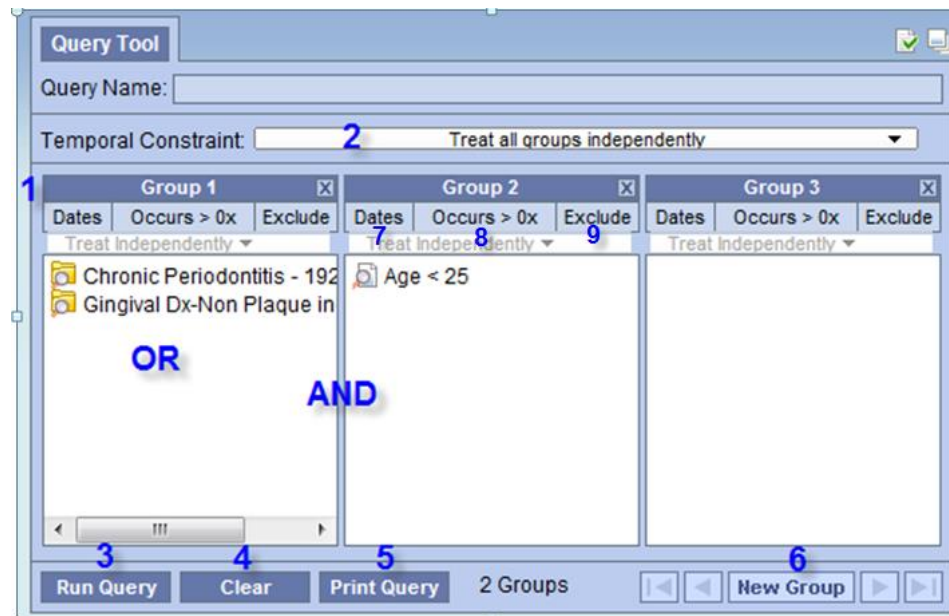
1. Site specific terminology: The axiUm node contains the site specific terminologies. Users can query for data available in axiUm at their own site. The number displayed adjacent to each folder/leaf node represents the number of patients.
2. COHRI terminology: This folder provides an integrated terminology system that allows users to query for data from more four schools
3. Options: Clicking on the  icon opens a small popup window (shown below) where users can customize the way the terms are displayed.



4. Expand: Clicking on the  icon expands the “Navigate Terms” section.
5. Search by Names: Users can use this tab to search terms by its name.
6. Search by Code: Users can search terms using their BigMouth code and description. These codes are different from the axiUm codes. These codes can be found by hovering over the terms.
7. Operators: User can use various operators while searching the term by name and code.
8. User can specify the search text in the space provided.
9. Users can specify whether they want to search in the site specific terminology or COHRI terminology.

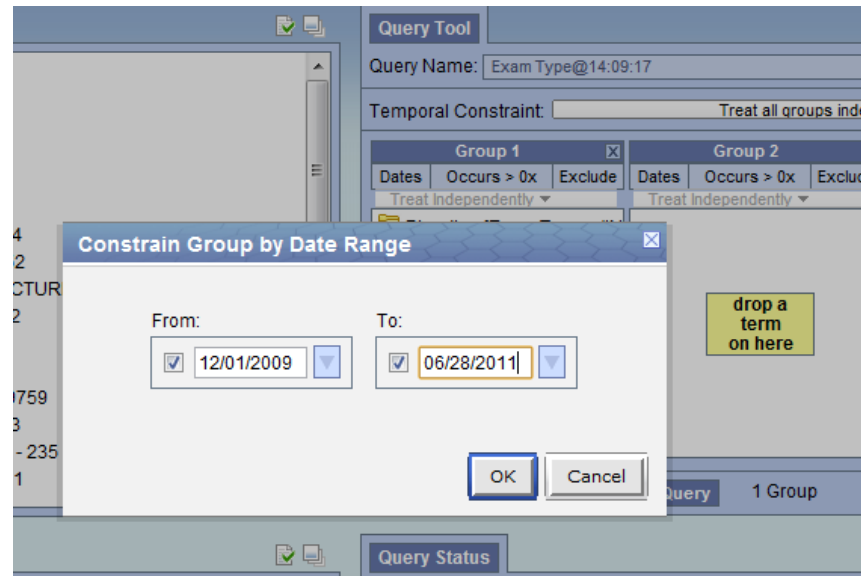
2. Query Tool Section

The query tool comprises of many groups where a user can specify the inclusion and exclusion criteria of patients.



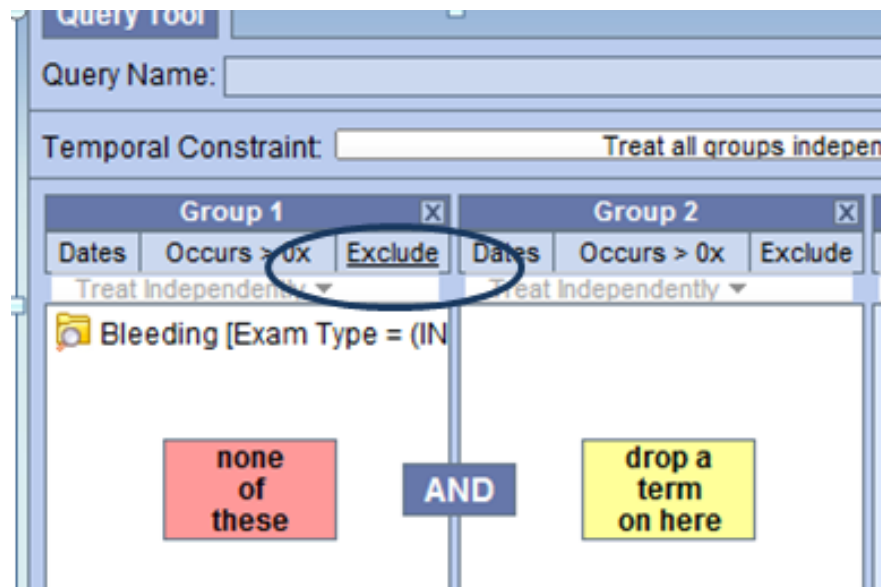
1. **Groups:** User can create as many groups as they like. A group can contain more than one term. A patient satisfying any one of the terms (conditions) in a group will be counted towards the final result. If more than one group is used, only patients satisfying conditions in all groups will be considered towards the final result. Users can add as many groups as required.
2. **Temporal Constraint:** This lets users specify if they would like to find patients from the same encounter. This feature is currently (as of June 2012) not supported in COHRI i2b2.
3. **Run Query:** Users can execute queries by clicking on the “Run Query” button.
4. **Clear:** Users can reset the content in the query tool by clicking on the “clear” button.
5. **Print Query:** Users can print the query for future reference by clicking on “Print Query” button.
6. **New Group:** Users can create new groups by clicking on “New Group” button.

7. **Dates:** Users can specify the date range of the encounters as shown below



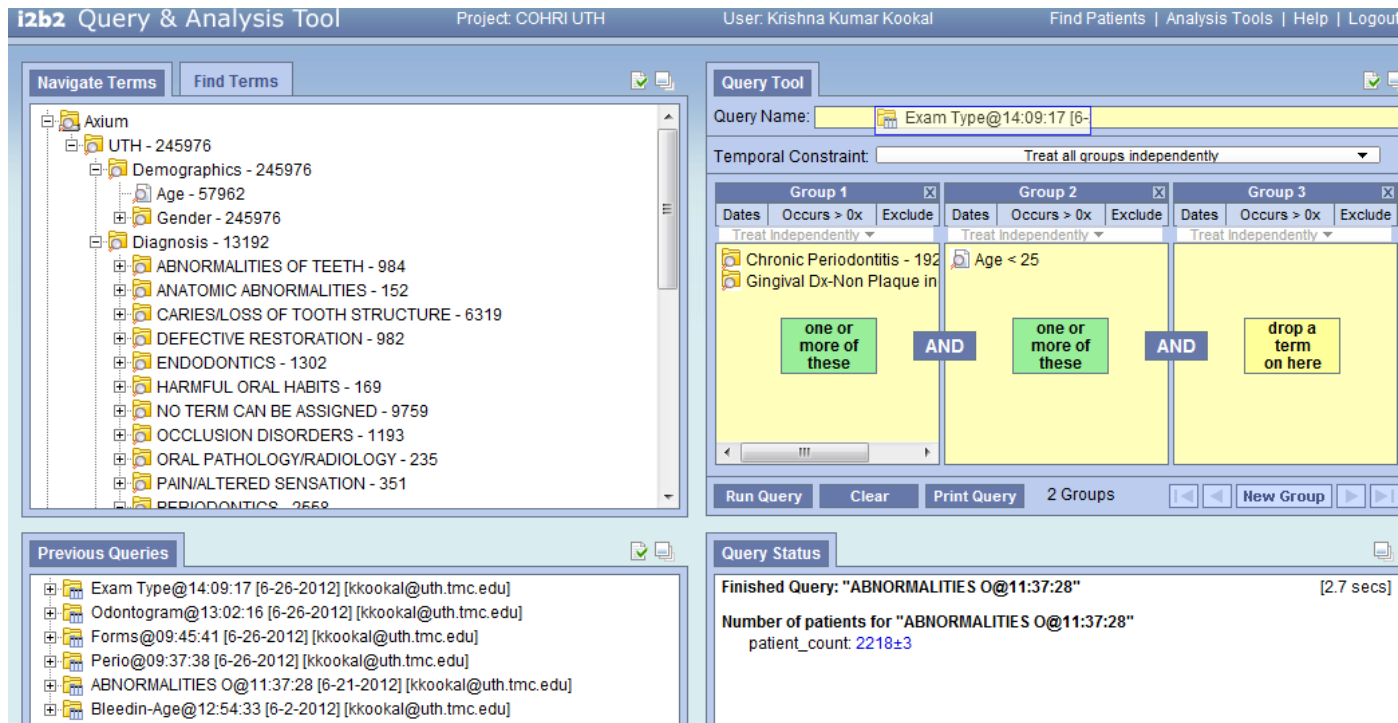
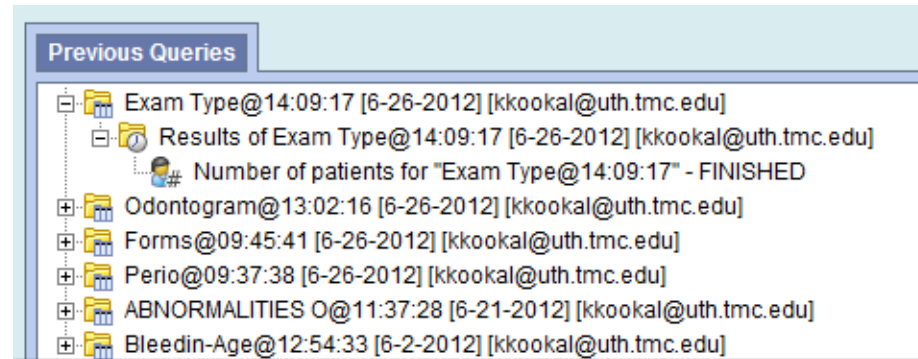
8. **This function is disabled**

9. **Exclude/Include:** Users can exclude or include the terms in a group.



3. Previous Queries Section

Users can view a summary of previously run queries in the “Previous Queries” section. In order to view the complete details of the query, user can drag and drop the query to the “Query Name” area within the “Query Tool” section.



How to run a query?

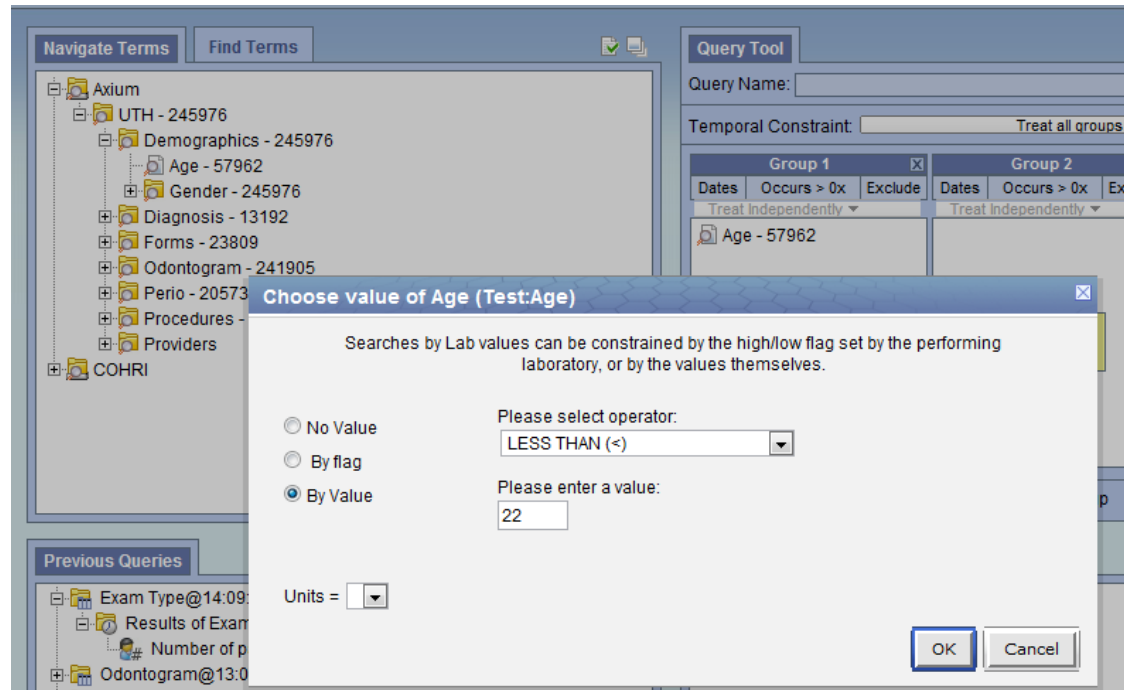
STEP 1: Identify the concept(s)/term(s) from the “Navigate Terms” section

STEP 2: Drag and drop the selected term to a group in the “Query tool” section. Specify date range, exclusion criterion as needed.

The screenshot displays a software interface for building queries. It is divided into several sections:

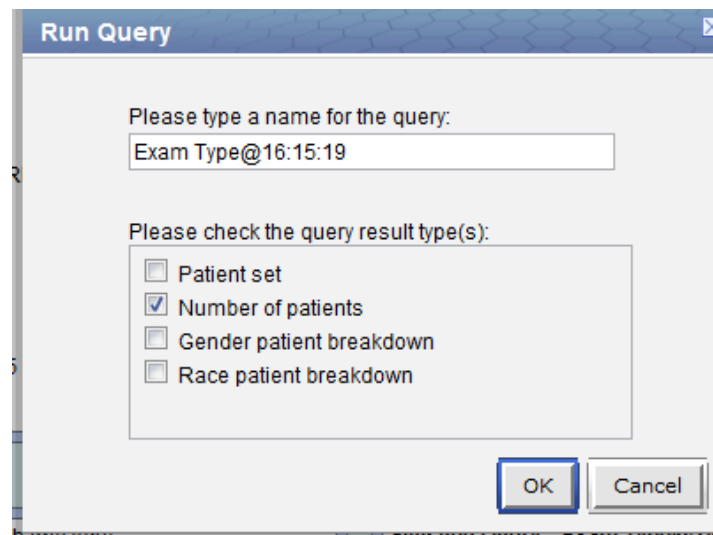
- Navigate Terms:** A hierarchical tree view showing a structure of terms. The root is 'Axiom', followed by 'UTH - 245976', 'Demographics - 245976', 'Age - 57962', 'Gender - 245976', 'Diagnosis - 13192', and 'ABNORMALITIES OF TEETH - 984'. Under 'ABNORMALITIES OF TEETH', there are sub-terms like 'Cementum Defect - 23', 'Dentin Defect - 40', 'Enamel and Dentin Defect - 163', 'Enamel Defect - 158', 'Eruption Abnormalities - 541', 'Number Alteration - 77', 'Pulp Abnormalities - 4', 'Shape Alteration - 26', 'Size Alteration - 9', and 'ANATOMIC ABNORMALITIES - 152'.
- Query Tool:** A panel for constructing the query. It includes a 'Query Name' field, a 'Temporal Constraint' dropdown set to 'Treat all groups independently', and three groups (Group 1, Group 2, Group 3). Each group has a 'Dates' field, an 'Occurs > 0x' field, and an 'Exclude' checkbox. Group 1 contains 'Age < 22'. Group 2 contains 'ABNORMALITIES OF TEETH' and 'Dentin Defect - 40'. Group 3 is empty. Between the groups are 'AND' operators. A yellow box in Group 3 says 'drop a term on here'. A green box in Group 1 says 'one or more of these', and a similar green box is in Group 2.
- Run Query:** Buttons for 'Run Query', 'Clear', and 'Print Query'. It also shows '2 Groups' and a 'New Group' button.
- Previous Queries:** A list of past queries with details like 'Exam Type@14:09:17 [6-26-2012] [kkookal@uth.tmc.edu]', 'Results of Exam Type@14:09:17 [6-26-2012] [kkookal@uth.tmc.edu]', 'Number of patients for "Exam Type@14:09:17" - FINISHED', 'Odontogram@13:02:16 [6-26-2012] [kkookal@uth.tmc.edu]', 'Forms@09:45:41 [6-26-2012] [kkookal@uth.tmc.edu]', 'Perio@09:37:38 [6-26-2012] [kkookal@uth.tmc.edu]', 'ABNORMALITIES O@11:37:28 [6-21-2012] [kkookal@uth.tmc.edu]', and 'Bleedin-Age@12:54:33 [6-2-2012] [kkookal@uth.tmc.edu]'.
- Query Status:** A panel for monitoring the query's execution status, currently empty.

Modifiers can be added to certain terms. A popup window is displayed when such terms are added to the “Query Tool” section. For example, when querying for age, users can specify the operator and the value (example shown below).



STEP 3: Click on the Run Query button

STEP 4: Specify the format of the result in the small popup window that appears after clicking on “Run Query” button. Please note that the “Patient Set” option is not available to all users.



Step 5: View results in the "Query Status" section

Finished Query: "Perio@16:18:11"

Compute Time: 7.5 secs

Patient Set for "Perio@16:18:11"

Race patient breakdown for "Perio@16:18:11"

American Indian or Alaska Native: 61

Asian: 1231

Black or African American: 2675

Some Other Race: 4185

White: 6525

Gender patient breakdown for "Perio@16:18:11"

Female: 11940

Male: 8062

Others: 2

Unknown: 569

Number of patients for "Perio@16:18:11"

patient_count: 20573

Example Query

How many patients ages 45 and older have been diagnosed with chronic periodontitis and a cardiovascular condition?

The screenshot displays the i2b2 Query & Analysis Tool interface. The top navigation bar includes the tool name, project (COHRI UTH), user (Krishna Kumar Kookal), and various utility links. The main workspace is divided into several panels:

- Navigate Terms:** A hierarchical tree view of medical terms. A callout box points to "ENDODONTICS - 1302" with the text "Number of patient having information regarding this condition".
- Query Tool:** A panel for building the query. It shows a query name "Age-Chron-073 -@12:42:11" and a temporal constraint "Treat all groups independently". The query is structured into three groups:
 - Group 1:** "Age > 45"
 - Group 2:** "Chronic Periodontitis - 192" with sub-terms like "Generalized Moderate", "Generalized Severe", "Generalized Slight", "Localized Moderate", "Localized Severe", "Localized Slight", "Peri-implantitis", "Periodontosis", and "Refractory Periodontitis".
 - Group 3:** A list of cardiovascular conditions including "073 - YES-Infective endoc...", "074 - YES-Coronary artery", "075 - YES-Heart attack - 5...", "078 - YES-Congestive hea...", "079 - YES-Hypertension - 5...", "080 - YES-Atrial fibrillation", "081 - YES-Heart block - 20...", "083 - YES-Pacemaker/Imp...", "082 - YES-Cardiac arrythm...", "084 - YES-Rheumatic feve...", "085 - YES-Heart murmur -", "086 - YES-Mitral valve pro...", "087 - YES-Deep vein throm...", "088 - YES-Stroke (CVA) or...", "096 - YES-Shortness of bri...", "097 - YES-Shortness of bri...", "098 - YES-Palpitations - 7...", "099 - YES-Angina/Chest p...", "100 - YES-Dizziness/Light", and "101 - YES-Swelling of the d...".Logical operators "AND" and "OR" are used to combine the groups. "AND" connects Group 1 to Group 2, and Group 2 to Group 3. "OR" connects Group 2 and Group 3.
- Workplace:** A large empty area for the query results.
- Previous Queries:** A list of recent queries, including the current one.
- Query Status:** A panel showing the query execution details: "Finished Query: 'Age-Chron-073 -@12:42:11'" with a compute time of 41.6 seconds and a patient count of 586.

Note: a common question regarding patient count: why the patient counts don't add up?

The reason is because one patient may have more than one specific condition. For example, total number of patients of the category "Abnormalities of teeth" in the picture below is 984. The number of patients of the subcategories of the category "Abnormalities of teeth" adds up to 1041. This is because one patient may be in both subcategories such as "Cementum Defect" and "Dentin Defect".

The screenshot displays a clinical data query tool interface. On the left, a "Navigate Terms" pane shows a hierarchical tree structure under "Axiom" and "UTH - 245976". The "Diagnosis - 13192" category is expanded to show "ABNORMALITIES OF TEETH - 984", which includes subcategories like "Cementum Defect - 23", "Dentin Defect - 40", "Enamel and Dentin Defect - 163", "Enamel Defect - 158", "Eruption Abnormalities - 541", "Number Alteration - 77", "Pulp Abnormalities - 4", "Shape Alteration - 26", "Size Alteration - 9", and "ANATOMIC ABNORMALITIES - 152".

The "Query Tool" pane on the right shows a query named "Age < 22 AND ABNORMALITIES OF TEETH AND Dentin Defect - 40". The query is structured into three groups:

| Group 1 | | | Group 2 | | | Group 3 | | |
|----------------------|-------------|---------|------------------------|-------------|---------|---------------------|-------------|---------|
| Dates | Occurs > 0x | Exclude | Dates | Occurs > 0x | Exclude | Dates | Occurs > 0x | Exclude |
| | | | | | | | | |
| Age < 22 | | | ABNORMALITIES OF TEETH | | | | | |
| one or more of these | | | one or more of these | | | drop a term on here | | |

The query is connected by "AND" operators. The interface includes buttons for "Run Query", "Clear", "Print Query", and "New Group". The "Query Status" pane at the bottom right is currently empty.

The "Previous Queries" pane at the bottom left lists several recent queries, including "Exam Type@14:09:17 [6-26-2012] [kkookal@uth.tmc.edu]", "Results of Exam Type@14:09:17 [6-26-2012] [kkookal@uth.tmc.edu]", "Odontogram@13:02:16 [6-26-2012] [kkookal@uth.tmc.edu]", "Forms@09:45:41 [6-26-2012] [kkookal@uth.tmc.edu]", "Perio@09:37:38 [6-26-2012] [kkookal@uth.tmc.edu]", "ABNORMALITIES O@11:37:28 [6-21-2012] [kkookal@uth.tmc.edu]", and "Bleedin-Age@12:54:33 [6-2-2012] [kkookal@uth.tmc.edu]".