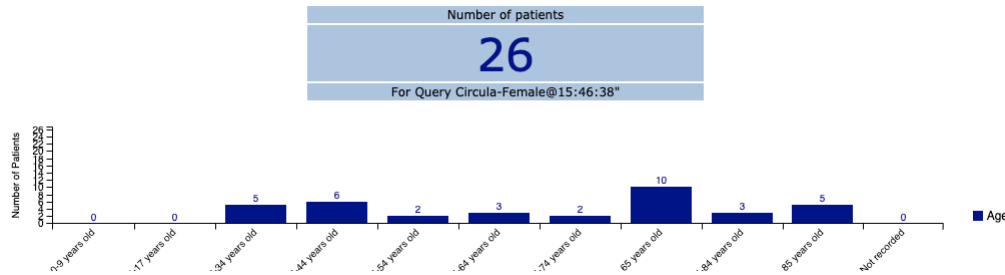


Exercise Set 1: Query

1a) Using the ontology browser and find terms, find how many females had circulatory system disease and create a bar chart by age.



1b) How many patients had circulatory system disease and a CPK test ≥ 400 u/l. (Answer: 5 patients.)

1c) Using the query from 1a, find the number of patients with a diagnosis before 11/2005. (Answer: 20).

Exercise 1 cont'd

1d) Repeat 1c, but now find patients with three or more occurrences of circulatory system disease. (Answer: 13)

1e) How many patients from 1d used a cardiovascular agent medication? (Answer: 6)

Exercise 1 cont'd

1f) Now view these patients as a timeline.



Exercise 2: Data Export

Export the previous query using the ExportXLS plugin.

ExportXLS

Specify Data | Output Options | View Results | Plugin Help

Drop a patient set and at least one concept (ontology term) onto the appropriate in "View Results" tab to retrieve the respective observations in the selected patient set.

For more information, refer to the "Plugin Help" tab.

Patient Set: contains some 6 patients (using patients #1 - 6, or the entire set)
Starting Patient: Number of Patients: [HELP](#)
Query Subgroup Size: [HELP](#)

Concept(s):

- Diseases of the circulatory system (i00-i99)
- Cardiovascular agents
- Female

Click a Concept to remove it from the list.

Patient Information (for patients 1 - 6)
of Patient Set 'Circu-Femal-Cardi@16:13:00 [11-9-2020] [demo] [PATIENTSET_17073]'

Patient ID	Diseases of the circulatory system (i00-i99)	Cardiovascular agents	Female
1	ICD9:429.3 (1)		
2	ICD9:401.9 (1)		
3		NDC:51079070545	
4		NDC:51079070545 = 50.00000 mg/ml (MED:DOSE)	
5		NDC:51079070545 = QD (MED:FREQ)	
6			DEM SEX:f
7	ICD9:427.9 (1)		
8	ICD9:401.9 (2)		
9	ICD9:410.90 (1)		
10	ICD9:410.71 (1)		
11	ICD9:411.1 (0)		
12	ICD9:411.1 (1)		
13	ICD9:414.01 (2)		
14	ICD9:414.01 (1)		
15	ICD9:410.00 (1)		
16	ICD9:410.11 (1)		
17	ICD9:414.9 (0)		

Exercise 2: Temporal query

Among patients over 65, how many have a diagnosis of asthma prior to their first ever prescription of bronchodilators?

Answer: 6

The screenshot shows a temporal query builder interface. At the top, the query is defined as "Temporal Query: Define sequence of Events". Below this, there are two observation panels: "Observation A" containing "Asthma - 133" and "Observation B" containing "Bronchodilators - 77". A blue arrow points from Observation A to Observation B, with text indicating the relationship: "Start of first ever Observation A occurs before Start of first ever Observation B". A plus sign and "Add a new Observation" link are also visible. Below the observations, there are three group panels. "Group 1" contains the filter ">= 65 years old - 19". "Group 2" is empty and contains a "drop a term on here" prompt. "Group 3" is empty. The groups are connected by an "AND" operator. At the bottom, there are "Run Query" and "Clear" buttons, and a "New Group" button.

Now view this as a timeline as well.