

SHRINE Webclient Help Document

Tour of the Web Client

Introduction

The functionality described in the user guide assumes that you have received the necessary prior authorizations to access a SHRINE network at your institution. The process for this authorization varies according to your institution and network.

Most SHRINE networks use a tool called the Data Steward Application to request and approve query topics prior to use of the SHRINE Web Client. Your local administrator or network contact will provide information about this prerequisite step, if applicable.

Details of shots presented in this document may vary from network to network. Each network uses a different ontology and may be uniquely configured. We have attempted to note in this document where these situations may be expected. If you have questions, please contact your local network representative.

The SHRINE Webclient Contains 2 main views:

- I. The Find Patients View
- II. View Patient Counts

I. Find Patients View

The default view the user will see upon logging in is the Find Patients view. The Find Patients view is divided into 3 modules: 1 Medical Concepts, 2 Inclusion and Exclusion Criteria, 3 Start Query. The main menu is in the upper middle 4.

The screenshot displays the SHRINE Webclient interface. At the top is a blue navigation bar with the ACT logo, 'The ACT Network' text, and a 'Powered by the NCATS CTSA Program' tagline. The main menu includes 'FIND PATIENTS' (highlighted), 'VIEW RESULTS', 'NEXT STEPS' with a checkmark icon, and a user profile icon. The interface is divided into four numbered sections: 1. Medical Concepts List (left sidebar), 2. Define Inclusion and Exclusion Criteria (top right), 3. Search ACT Network (bottom right), and 4. Main Menu (top navigation bar). The Medical Concepts List sidebar shows a search dropdown set to 'All Concepts', a 'begin typing criteria' input field with a 'GO' button, and a tree view of medical concepts including Covid-19, Demographics, Diagnoses, Laboratory Tests, Medications, and Procedures. The Define Inclusion and Exclusion Criteria section has a 'Find patients' tab and a 'drag a concept here to define the first inclusion or exclusion criteria' instruction. The Search ACT Network section has a 'Select topic or create one' dropdown, an 'Enter or autogenerate name' input field, and a 'COUNT PATIENTS' button. A 'CLEAR ALL' button is also present in the top right of the Define Inclusion and Exclusion Criteria section.

1. Medical Concepts Module

The Medical Concepts panel consists of:

- a - The Filter Drop Down menu.
- b - The Search Field
- c - The Medical Concepts Tree

Medical Concepts List

Search: All Concepts

a



begin typing criteria

b

GO

☐ Covid-19

☐ ACT COVID-19

☐ Demographics

☐ ACT Demographics

☐ Diagnoses

c

☐ ACT Diagnoses ICD-9-CM

☐ ACT Diagnoses ICD-10

☐ ACT Diagnoses ICD10-ICD9

☐ Laboratory Tests

☐ ACT Laboratory Tests

☐ ACT Laboratory Tests (Provisional)

☐ Medications

☐ ACT Medications Alphabetical

☐ ACT Medications VA Classes

☐ Procedures

a - The Filter Drop Down menu.

The Code Category Filter is used in combination with the search field to filter the concepts by category. The filter will be applied to any searches performed by typing a search term in the Search Field and hitting the go button (see part b).

Medical Concepts List

Search:

All Concepts

Covid-19

Demographics

Diagnoses (All)

Diagnoses ICD-9-CM

Diagnoses ICD-10

Diagnoses ICD10-ICD9

Laboratory Tests (LOINC)

Medications (RxNORM)

Procedures (All)

Procedures ICD-9-Proc

Procedures CPT-4

Procedures HCPCS

Procedures ICD-10-PCS

Visit Details

b - The Search Field

As the user types in the search field, matches will automatically appear in a dropdown below after 3 characters or more have been typed.

Medical Concepts List

Search: Covid-19



begin typing criteria

lung|



GO

lung 1,567 concepts

approach lung 387 concepts

lung right 384 concepts

lobe lung 356 concepts

left lung 324 concepts

Severe Illness

Level of Care (Setting)

Medications

Other Variables of Interest

Prognostic Lab Tests

Respiratory Therapy Management

Diagnosis

Diagnostic Lab Tests

Total Patient Count

If the user selects a matching term and clicks the go button on the right, the filtered concept tree will appear.

Medical Concepts List

Search: Covid-19



begin typing criteria

lung

GO

[-] Covid-19

[-] ACT COVID-19

[-] Course Of Illness

[-] Other Variables of Interest

[-] Abnormal Chest Imaging

- Abnormal Chest Imaging (Derived)
- Other nonspecific abnormal finding of lung field (R91.8)

[-] Auto-Immune Disease

[-] M05 Rheumatoid arthritis with rheumatoid factor

[-] M05.1 Rheumatoid lung disease with rheumatoid arthritis

- M05.10 Rheumatoid lung disease with rheumatoid arthritis of

The user can also navigate the Concept Tree by expanding the folders to view the child concepts.

Medical Concepts List

Search: Covid-19



begin typing criteria

GO

☐ Covid-19

☐ ACT COVID-19

☐ Demographics

☐ ACT Demographics

☐ Diagnoses

☐ ACT Diagnoses ICD-9-CM

☐ ACT_2.0.1_UMLS_2018AA

☐ 001-999.99 Diseases And Injuries

☐ E000-E999.9 Supplementary Classification Of
External Causes Of Injury And Poisoning

☐ V01-V91.99 Supplementary Classification Of
Factors Influencing Health Status And Contact
With Health Services

☐ ACT Diagnoses ICD-10

☐ ACT Diagnoses ICD10-ICD9

☐ Laboratory Tests

☐ ACT Laboratory Tests

2. Inclusion and Exclusion Criteria Module

The inclusion and Exclusion Module Consists of one or more Medical Concept Group (a) consisting of:

b - With or Without Toggle

c - Concept Drop Area

d - Clear All button

Define Inclusion and Exclusion Criteria

a

Find patients

b

with

c

without

drag a concept here to define the first inclusion or exclusion criteria

d

CLEAR ALL

Concepts can be dragged from the medical concept list and dropped into the Concept Drop Area of a Medical Concept Group.

Medical Concepts List

Search: All Concepts

begin typing criteria

GO

Covid-19

ACT COVID-19

Demographics

ACT Demographics

ACT_2.0.1_20181212

Age

(adults) >= 18 years old

(children) < 18 years old

0-9 years old

10-17 years old

18-24 years old

Define Inclusion and Exclusion Criteria

CLEAR ALL

Find patients

with

without

Demographic

(adults) >= 18 years old

or drag additional concepts

SET DATE RANGE OR MULTIPLE OCCURRENCES

and

with

without

drag a concept here for the next inclusion or exclusion criteria

When a concept is dropped into a Medical Concept Group, some things to note are:

- The Medical Concept Group that the concept was dropped into becomes active.
- A new inactive Medical Concept Group is automatically added below the original.
- The With or Without Toggle is set to "with" by default but can now be toggled to "without".
- The new concept now appears in the Concept Drop Area and can be removed by mousing over the concept and clicking the x that appears.
- The entire query can be reset by clicking the Clear All button.

Define Inclusion and Exclusion Criteria

Find patients

☒ with
 ☐ without

×

Demographic

(adults) >= 18 years old

or drag additional concepts

SET DATE RANGE OR MULTIPLE OCCURRENCES ▾

and

☐ with
 ☐ without

drag a concept here for the next inclusion or exclusion criteria

Setting the Date Range or Multiple Occurrences.

Using a different query containing a diagnosis of Covid-19 related Acute Respiratory Disease, we can demonstrate the ability to set the date range **(e)** and change the number of occurrences of the diagnosis **(f)**. Please note that the date settings can contain either a start date or an end date or both.

Define Inclusion and Exclusion Criteria

CLEAR ALL

Find patients

☒ with
 ☐ without

×

Covid-19

2019-nCoV acute respiratory disease (ICD10CM:U07.1)

or drag additional concepts

SET DATE RANGE OR MULTIPLE OCCURRENCES ▲

Concepts must occur from

to

Date Range:

MM/DD/YYYY

📅

MM/DD/YYYY

📅

↺

Concepts must occur at least

Occurrences:

1

times

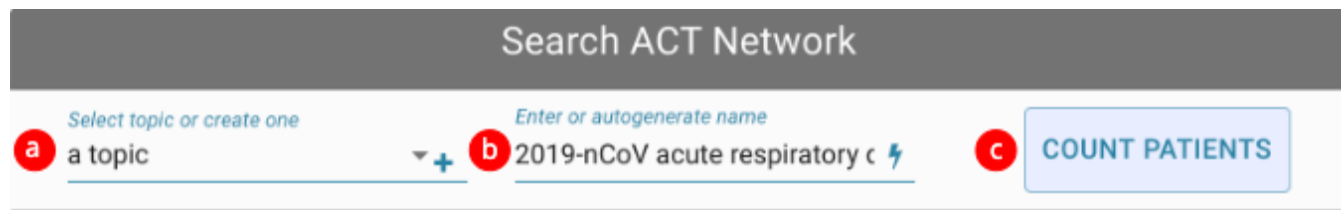
↺

3. Start Query Module

The Start Query Module Consists of:

- a** - The Query Topic Selection.
- b** - Query Name field.

c - The Count Patients Button

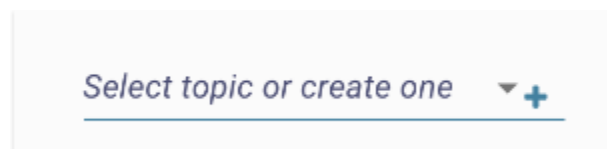


The image shows a search interface titled "Search ACT Network". It features two input fields and a button. The first field, labeled "a", has the placeholder text "Select topic or create one" and contains the text "a topic". To its right is a small dropdown arrow and a plus sign. The second field, labeled "b", has the placeholder text "Enter or autogenerate name" and contains the text "2019-nCoV acute respiratory c" followed by a lightning bolt icon. To the right of the second field is a button labeled "c" with the text "COUNT PATIENTS".

A Query Topic must be selected and a Query Name must be entered into the Query Name field before a query can be run.

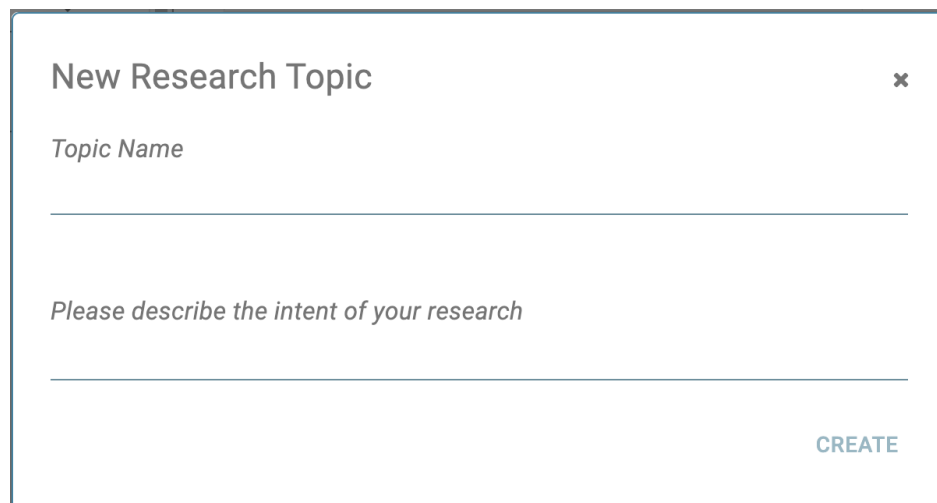
a. Query Topic Selection

A user must select a query topic before running a query.



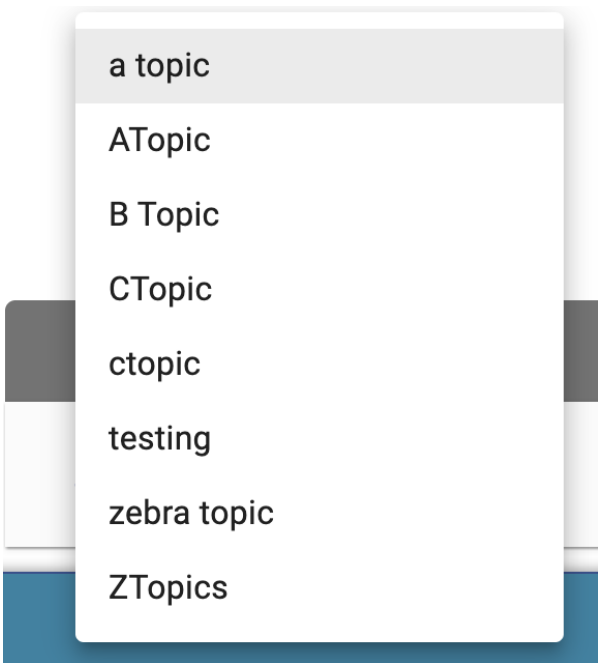
The image shows a dropdown menu with the placeholder text "Select topic or create one" and a small dropdown arrow and plus sign to its right.

If no query topics exist, clicking the "+" button to the right of the Query Topic Selection will allow the user to create a topic.



The image shows a modal form titled "New Research Topic" with a close button (x) in the top right corner. It contains two text input fields. The first field is labeled "Topic Name" and the second field is labeled "Please describe the intent of your research". A "CREATE" button is located at the bottom right of the modal.

After creating a topic, it will show up in the topic drop down where it can be selected.



b. Query Name Field

In addition to the Query Topic Selection, the Query Name Field is required before being able to run a query.

A form field for the query name. It has a placeholder text "Enter or autogenerate name" and a lightning bolt icon on the right. The text "topic name" is entered in the field.

A user can autogenerate a query name by clicking the lightning graphic on the right:

A screenshot of the "Search ACT Network" form. It shows a dropdown menu for topic selection with "a topic" selected, a query name field with "query name" entered, and a "COUNT PATIENTS" button. A tooltip "Autogenerate Name" points to the lightning bolt icon in the query name field.

b. Count Patients Button

When all required fields are populated on the form, the user can click the Count Patients button to start a query.

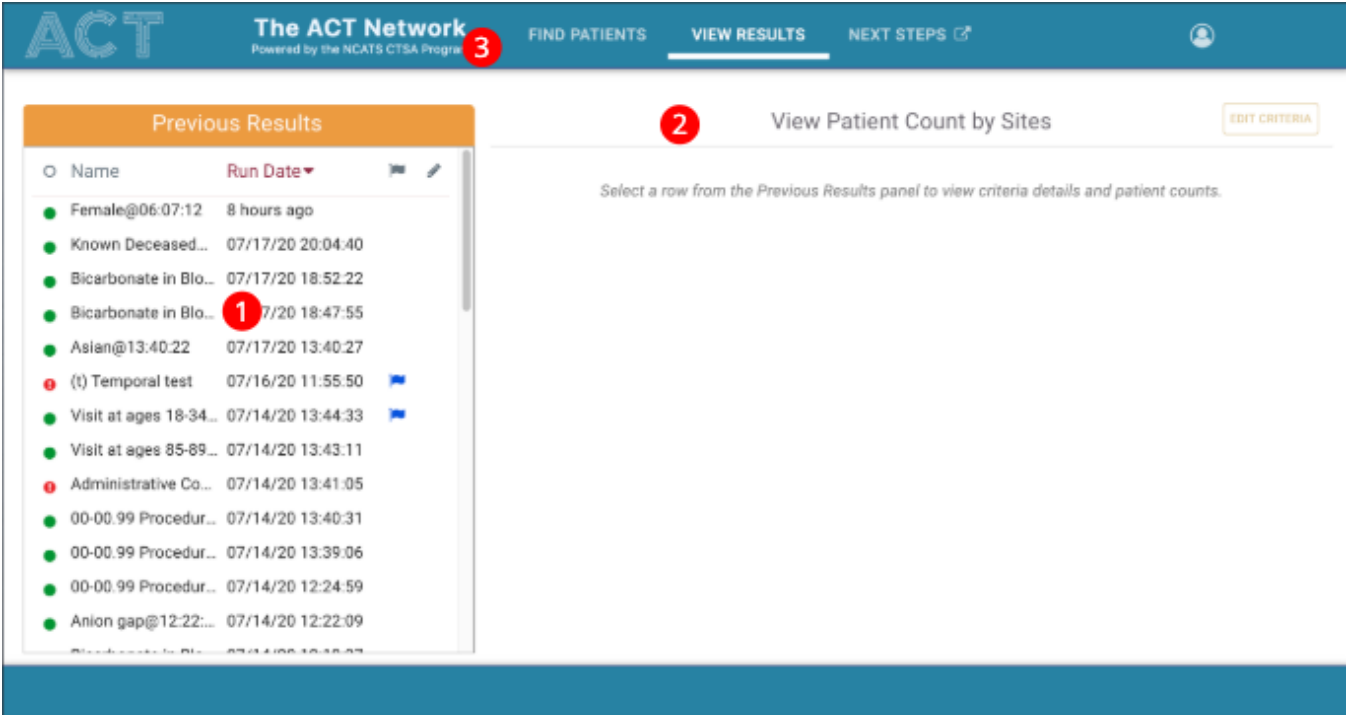
A close-up of the "COUNT PATIENTS" button, which is a light blue rounded rectangle.

The Count Patients button will automatically disable if any required fields are missing.



II. View Patient Counts

View Results is divided into 2 modules: 1 Previous Results, 2 Patient Counts. The main menu 3 can be used to switch between the Find Patients and View Results Views.



1. Previous Results Module

The Previous Module Consists of:

- a - The Previous Results Header.
- b - Previous Results

Previous Results

 Name 	Run Date 	 
 Female@11:04:37 42 minutes ago 		
 Female@10:54:38 an hour ago		
 Asian@13:09:02 a day ago		
 Asian@13:08:40 a day ago		
 Female@13:08:07 a day ago		
 Female@06:07:12 07/20/20 06:07:20		
 Known Deceased... 07/17/20 20:04:40		
 Bicarbonate in Blo... 07/17/20 18:52:22		
 Bicarbonate in Blo... 07/17/20 18:47:55		
 Asian@13:40:22 07/17/20 13:40:27		
 (t) Temporal test 07/16/20 11:55:50 		
 Visit at ages 18-3... 07/14/20 13:44:33 		
 Visit at ages 85-8... 07/14/20 13:43:11		
 Administrative Co... 07/14/20 13:41:05		
 00-00.99 Procedu... 07/14/20 13:40:31		

a. The Previous Results Header

The Previous Results Header provides the ability to sort the Previous Results by Query Name, Run Date and Flag Status. In the example below, the Previous Results are sorted by Run Date with the most recent results sorted at the top of the table:

Previous Results

	Name	Run Date▼		
	Female@11:04:37	an hour ago		
	Female@10:54:38	2 hours ago		
	Asian@13:09:02	a day ago		
	Asian@13:08:40	a day ago		
	Female@13:08:07	a day ago		
	Female@06:07:12	07/20/20 06:07:20		
	Known Deceased...	07/17/20 20:04:40		
	Bicarbonate in Blo...	07/17/20 18:52:22		

In the following example the Previous Results are sorted by Run Date with the least recent results sorted at the top of the table:

Previous Results

 Name	Run Date ▲		
 Male@16:05:19	07/08/20 16:05:21		
 (adults) >= 18 yea...	07/08/20 16:07:30		
 (adults) >= 18 yea...	07/08/20 16:07:58		
 (adults) >= 18 yea...	07/08/20 16:08:27		
 (adults) >= 18 yea...	07/08/20 16:11:54		
 (adults) >= 18 yea...	07/08/20 16:19:23		
 (adults) >= 18 yea...	07/08/20 16:25:25		
 (adults) >= 18 yea...	07/08/20 16:26:35		
 (adults) >= 18 yea...	07/08/20 16:26:55		

In the following example the results are sorted with flagged queries at the top of the table:

Previous Results

 Name	Run Date	 
 (t) Temporal test	07/16/20 11:55:50	
 Visit at ages 18-3...	07/14/20 13:44:33	
 Female@11:04:37	2 hours ago	
 Female@10:54:38	2 hours ago	
 Asian@13:09:02	a day ago	

In the following example the results are sorted in alphabetical order:

Previous Results

 Name ▲	Run Date	 
 (adults) >= 18 yea...	07/13/20 14:35:36	
 (adults) >= 18 yea...	07/09/20 15:45:53	
 (adults) >= 18 yea...	07/09/20 16:06:59	
 (adults) >= 18 yea...	07/08/20 16:07:30	
 (adults) >= 18 yea...	07/08/20 16:07:58	
 (adults) >= 18 yea...	07/08/20 16:08:27	

In the following example the results are sorted in reverse alphabetical order:

Previous Results

 Name ▼	Run Date		
 Visit at ages 85-8...	07/14/20 13:43:11		
 Visit at ages 18-3...	07/14/20 13:44:33		
 Male@16:05:19	07/08/20 16:05:21		
 Known Deceased...	07/17/20 20:04:40		

b. Previous Results

The previous results are queries that are either currently in progress or have already completed.

- Female@11:04:37 3 hours ago
- Female@10:54:38 3 hours ago
- Asian@13:09:02 07/22/20 13:09:06
- Asian@13:08:40 07/22/20 13:08:46
- Female@13:08:07 07/22/20 13:08:11
- Female@06:07:12 07/20/20 06:07:20
- Known Deceased... 07/17/20 20:04:40
- Bicarbonate in Blo... 07/17/20 18:52:22
- Bicarbonate in Blo... 07/17/20 18:47:55
- Asian@13:40:22 07/17/20 13:40:27
- ! (t) Temporal test 07/16/20 11:55:50 
- Visit at ages 18-3... 07/14/20 13:44:33 
- Visit at ages 85-8... 07/14/20 13:43:11
- Administrative Co... 07/14/20 13:41:05

Clicking on one of the queries will retrieve its results as seen below. The right hand section titled View Patient Count By Sites will be described in more detail later on in this tutorial.

Previous Results	
Name	Run Date
Female@11:04:37	3 hours ago
Female@10:54:38	3 hours ago
Asian@13:09:02	07/22/20 13:09:06
Asian@13:08:40	07/22/20 13:08:46
Female@13:08:07	07/22/20 13:08:11
Female@06:07:12	07/20/20 06:07:20
Known Deceased...	07/17/20 20:04:40
Bicarbonate in Blo...	07/17/20 18:52:22
Bicarbonate in Blo...	07/17/20 18:47:55
Asian@13:40:22	07/17/20 13:40:27
(t) Temporal test	07/16/20 11:55:50
Visit at ages 18-3...	07/14/20 13:44:33
Visit at ages 85-8...	07/14/20 13:43:11
Administrative Co...	07/14/20 13:43:05

View Patient Count by Sites

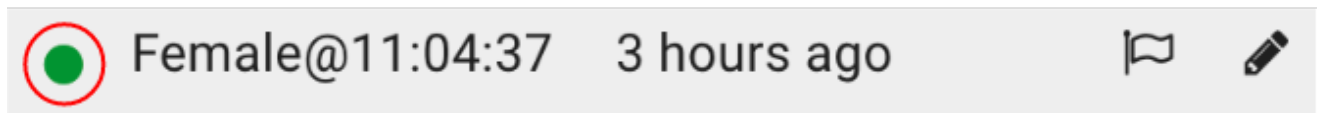
[EDIT CRITERIA](#)

Name: Female@11:04:37
 Topic: B Topic
 Criteria: Find patients with (Demographics Female)
 Status: Completed - 3 sites with patients, up to 195 total patients ⓘ
 Last Updated: 7/23/20 at 11:04:56 EDT

Site	Status
shrine-webclient-dev-node01.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

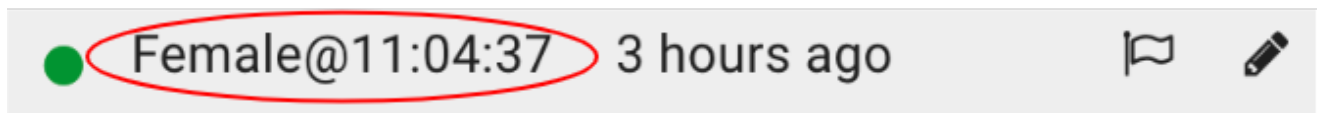
Query Status Indicator Column

The dot in the first column indicates the status of the query. Green indicates a successfully completed query and Red indicates a query that had an error retrieving results.



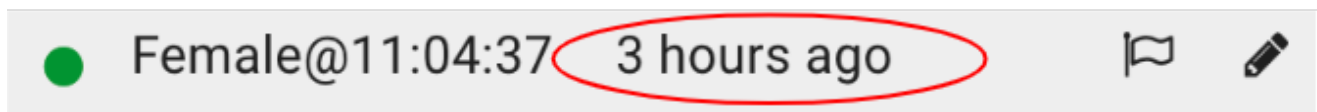
Query Name Column

The second column is the query name:



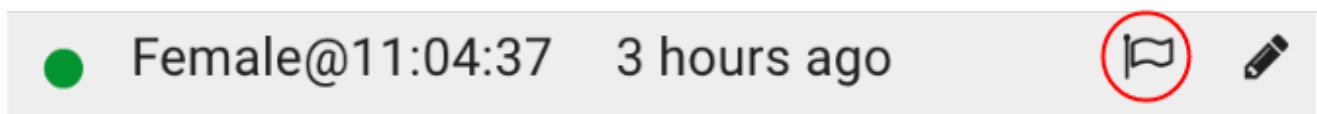
Execution Time

The third column is the time when the query was run:



Flag Query Button

The fourth column is a button that allows the user to flag a query:



Clicking the button reveals the Flagging dialog shown below:



Previous Results

○ Name

Run Date▼

🚩 ✎

❗ (adults) >= 18 yea...	2 hours ago
❗ Cytokine Release ...	2 hours ago
● Female@11:04:37	5 hours ago
● Female@10:54:38	5 hours ago
● Asian@13:09:02	07/22/20 13:09:06
● Asian@13:08:40	07/22/20 13:08:46
● Female@13:08:07	07/22/20 13:08:11
● Female@06:07:12	07/20/20 06:07:20

View Patient Count by

Name:

Cytokine Release Syndromes (CRS@14:14:0

Topic:

Criteria:

Status:

Submitted - 0 sites with patients, up to 0 tot

Rename Criteria Set

✕

Name

Renamed Female@11:04:37

UPDATE

In this example we are changing the name of this query to "Renamed Female@11:04:37" and clicking the update button. The name is now updated in the table row:

● Renamed Female... 5 hours ago

🚩 ✎

2. Patient Counts Module

The Patient Counts Module consists of:

- Query Metadata
- Patient Counts
- Edit Criteria Button.

View Patient Count by Sites

[EDIT CRITERIA](#)

a Name: Renamed Female@11:04:37
Topic: B Topic
Criteria: **Find patients with** (Demographics Female)
Status: **Completed** - 3 sites with patients, up to **195** total patients ⓘ
Last Updated: 7/23/20 at 16:23:24 EDT

b ⓘ Site Status

shrine-webclient-dev-node01.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

a. Query Metadata

The Query Metadata has the following information rows:

Name - the name of the query.

Topic - the topic that the query is associated with.

Criteria - the query definition

Status - the status of the query...i.e. Completed, Submitted...e.t.c.

Last Updated - a timestamp for the last time the query retrieved updated information.

Name: Female@10:54:38
Topic: B Topic
Criteria: **Find patients with** (Demographics Female)
Status: **Completed** - 3 sites with patients, up to **185** total patients ⓘ
Last Updated: 7/23/20 at 10:54:43 EDT

b. Patient Counts

The patient counts table contains rows that display a site name and its associated patient count. In the example below we can see in first row that the site shrine-webclient-dev-node1.catalyst.harvard.edu has a count of 45 patients (plus or minus 10 patients), the site shrine-webclient-dev-node2.catalyst.harvard.edu has a count of 55 patients (plus or minus 10 patients), and the site shrine-webclient-dev-node3.catalyst.harvard.edu has a count of 55 patients (plus or minus 10 patients).

 Site 	Status
shrine-webclient-dev-node01.catalyst.harvard.edu	45 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

In addition we can sort the results by clicking the Site column header. In the example below, the counts are sorted by site name alphabetically:

 Site 	Status
shrine-webclient-dev-node01.catalyst.harvard.edu	45 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

In the example below, the counts are sorted by site name reverse-alphabetically:

 Site 	Status
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node01.catalyst.harvard.edu	45 ± 10 patients

Additionally, we can sort by the status. In the example below the counts are sorted by the number of results ascending with the fewest counts at the top:

 Site	Status 
shrine-webclient-dev-node01.catalyst.harvard.edu	45 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

In the example below the counts are sorted by number of results descending with the largest counts at the top:

 Site	Status 
shrine-webclient-dev-node01.catalyst.harvard.edu	45 ± 10 patients
shrine-webclient-dev-node02.catalyst.harvard.edu	55 ± 10 patients
shrine-webclient-dev-node03.catalyst.harvard.edu	55 ± 10 patients

When a query is in process or when it contains errors at one or more sites, the status column will display the status at the sites instead of patient counts. In the example below all the sites in the network are returning an error.

Site  	Status
shrine-webclient-dev-node01.catalyst.harvard.edu	Site Error click for details
shrine-webclient-dev-node02.catalyst.harvard.edu	Site Error click for details
shrine-webclient-dev-node03.catalyst.harvard.edu	Site Error click for details

The user can click on one of the "click for details" links to get a more detailed description of the issue:

Site Error Details

If you would like to report this error, please copy the entire message below and paste into an [email](#) to your local site administrator.

Summary:
Could not map query term(s) Cytokine Release Syndromes (CRS/SIRS)}.

Description:

The Shrine Adapter on ip-10-10-12-112.ec2.internal cannot map this query to its local terms.

Codec:
net.shrine.adapter.AdapterMappingProblem
For information on troubleshooting and resolution, check [the SHRINE Error Codex](#).

Stamp:
Thu Jul 23 14:14:09 EDT 2020 on ip-10-10-12-112.ec2.internal Adapter

Name:
net.shrine.adapter.AdapterMappingProblem

c. Edit Criteria Button

Clicking the Edit criteria will reconstruct the query and display it's definition in the find patients view.

EDIT CRITERIA

The result of clicking the Edit Criteria button in our example is shown below. The user can now edit and re-run the query.

ACT

The ACT Network
Powered by the NCATS CTSA Program

[FIND PATIENTS](#)[VIEW RESULTS](#)[NEXT STEPS](#)

Medical Concepts List

Search: All Concepts

begin typing criteria

☐ Covid-19

- ☐ ACT COVID-19

☐ Demographics

- ☐ ACT Demographics

☐ Diagnoses

- ☐ ACT Diagnoses ICD-9-CM
- ☐ ACT Diagnoses ICD-10
- ☐ ACT Diagnoses ICD10-ICD9

☐ Laboratory Tests

- ☐ ACT Laboratory Tests
- ☐ ACT Laboratory Tests (Provisional)

☐ Medications

- ☐ ACT Medications Alphabetical
- ☐ ACT Medications VA Classes

☐ Procedures

GO

Define Inclusion and Exclusion Criteria

CLEAR ALL

Find patients ☒ with ☐ without

Covid-19

Cytokine Release Syndromes (CRS/SIRS)

or drag additional concepts

SET DATE RANGE OR MULTIPLE OCCURRENCES

and ☐ with ☐ without

drag a concept here for the next inclusion or exclusion criteria

Search ACT Network

Select topic or create one

Enter or autogenerate name

Cytokine Release Syndromes

COUNT PATIENTS