

UVA EMERSE User Guide

EMERSE (**E**lectronic **M**edical **R**ecord **S**earch **E**ngine) is software that helps researchers accurately find and extract important patient details like diagnoses, medications, procedures, and complications from clinical notes. EMERSE is easy for non-technical people to use and enables health research that was previously inefficient or nearly impossible.

EMERSE is similar to natural language processing (NLP), but it's actually an information retrieval tool. That means it has a lot of similarities with software users are already familiar with including Google. Another advantage of EMERSE over traditional NLP is how simple it is to use, and how little effort is required to get started with it.

EMERSE is open source, free to use, and is accessible from any modern web browser. UVA EMERSE is administered and managed by the Research & Clinical Trials Analytics (RCTA) Team. The team will also provide the service of searching relevant notes for a fee upon request and after a cost estimate is signed by the customer.

Access for Research

Limited to PIs, Sub-PIs, or Study Coordinators for active IRB-approved Studies

You will need to complete the [OMOP & EMERSE User Access Form](#) and have the following qualifications:

1. You are listed as a PI, Sub-PI or Study Coordinator on an active IRB-approved
2. You must provide Data Governance approval – [UVA Health Data Governance](#)
3. You must follow CITI directive and HIT Security Rules in regards to research data usage in EMERSE: [CITI Program](#), take course **IRB-HSR RESEARCHER BASIC COURSE**
4. You must only search key terms related to the **research study** selected during login **attestation**
5. You must acknowledge you will cite EMERSE for any publications in which EMERSE data is used: [Citing EMERSE](#) (information is provided to the user in New Access Notification)
6. You must have access to the UVA Health Network. Use this link to request a [UVA Academic Sponsorship Request for Health System Network](#).

The EMERSE Administrator will review your request for qualifications. Once all the qualifications have been met, you will receive an email notification that access has been approved. The email notification will include the EMERSE Application Link and login instructions using your UVA Health System network user ID and password.

Production EMERSE site: <https://hitemerse1.hscs.virginia.edu/emerse>

Attestation

The Attestation Page is the first page you will land on after logging in to EMERSE. Select the IRB-approved research study that you are using EMERSE for that login session. Please note that your attestation is stored in the application logs (audit trail) to capture specific use cases when looking up patient information. There is currently no way to change your Attestation selection once you have logged into EMERSE for a specific user-session. If you need to change it, log out of EMERSE and then log



back in again. You can view your currently selected Attestation within EMERSE by clicking on the menu in the upper right section of the Navigation Panel.

Warning: Users cannot perform generic or unrelated searches in EMERSE, only those searches that are directly related to the research study they have attested to upon entry. The system is connected to the IRB data on a continuous basis, therefore, any studies that have expired, or which the user is no longer listed on, will automatically be removed from the Attestation list.

Email RCTA Team when EMERSE search is ready for export

After you have narrowed down your search and are ready for an export. You will need to email the RCTA Team at researchdata@uvahealth.org to perform the data export for you. Please include in the email your IRB number, the saved names of the Patient, Filters, and Terms, Provide your data security plan so the team can verify the allowable PHI for given IRB.

- Patients – This is the base population, later saved as a list after Terms and/or Filters are applied.
- Filters – Further filters down the population search (you will be able to save filters in the future)
- Terms – Key terms you will search on your Patients base population. Save terms individually.

You can save the searched criteria (Filters, Terms) and save the resulting Patients list. Note that each is saved separately. Please use a good naming convention so that you can piece back together the search details if needed.

The RCTA Team will review your request and assign a staff member to your request. After you initial communication with that member, you will need to share your saved (Patient list, Filters, Terms) with that individual so that they can perform the export.

Trouble logging in?

Please **ensure you are using your most current UVA Health computing username and password**. EMERSE is synced with the UVA Health Active Directory, therefore, any updates to your password will automatically update in EMERSE. The UVA Health System password expires every 60 days. If your UVA Health **password has been locked out, expired, or forgotten**, please contact the **Health IT Help Desk at 434-924-5334** for assistance.

Access Expiration

Access to EMERSE login will expire if you leave UVA or your UVA Health Network Sponsored account is inactivated.

Access to entering the application beyond the Attestation page relies on membership of an active IRB-approved research study. If there aren't any active IRB-approved research studies associated with your user ID, then you cannot go any further into the system.

Additional User Guides

iTHRIV Portal EMERSE Resource website: <https://portal.ithriv.org/#/resource/2161>

EMERSE User Guide: https://project-emerse.org/documentation/user_guide.html

EMERSE Training Materials and Videos: <https://project-emerse.org/presentations.html>



Contact US:

Please feel free to email us with any further questions at researchdata@uvahealth.org