

BIOSPATIAL PATIENT REGISTRY USER GUIDE

Version 0





I Contents

1	Contents	2
2	Change Log	4
3	Introduction	5
3.1	biospatial Patient Registry	5
3.2	Technical Support	5
4	Registry Administrator	6
4.1	Registries Table	7
4.2	Registry Organizations Table	7
4.3	Registry Editor Page	8
4.3.1	Registry Admins Table	9
4.3.2	Facilities Table	9
4.3.3	Registry Organizations Table	9
4.3.4	Registry Schemas Table	10
4.3.5	Registry Roles Table	12
4.3.6	Default Registry Roles and Rights	13
4.4	Registry Organization Editor Page	15
4.4.1	Registry Organization Access Table	15
4.4.2	Registry Organization Users Table	15
4.4.3	Registry Organization User Access Table	16
4.5	Registry Hospital Editor Page	18
4.5.1	Facility Metadata	19
4.5.2	Facility Designations	20
4.5.3	Facility Identification Numbers	20
4.5.4	Facility Points of Contact	20
4.5.5	Facility Registries	21
5	Registry Import	22
5.1	Registry Import Dashboard Search Panel	22
5.2	Importing Files	22
6	Registry Ingest	25
6.1	Registry Ingest Dashboard Search Panel	25
6.2	Registry Ingest Explorer	26



6.3	Registry Ingest Records Table	27
7	Registry Export	29
7.1	Registry Export Dashboard Search Panel	29
7.2	Exports Table	29
7.3	Creating a New Export.....	30
8	Registry Records	31
9	EMS Record Search	32
9.1	EMS Record Search Panel	32
9.2	EMS Records Table.....	32
9.3	Creating a Patient Registry Record from an EMS Record.....	33



2 Change Log

Version	Date	Description
0	April 3, 2025	Initial release.



3 Introduction

3.1 biospatial Patient Registry

The biospatial Patient Registry is a scalable solution built for the complex demands of hospitals, as well as entire health systems. Transform how your team manages data by reducing abstraction time, automatically validating data, and leveraging easy-to-understand insights in a single, convenient patient registry software.

3.2 Technical Support

This document assumes a basic understanding of the biospatial platform. For administrative users that are new to the platform, please schedule a training session with the biospatial Customer Technical Support (CTS) team. Training materials are also available within the biospatial platform at <https://app.biospatial.io/support> or by selecting “Technical Support and Documentation” from the platform landing page.

ImageTrend acquired biospatial in December of 2024. Support requests should now be sent to support@imagnetrend.com for expedited service, questions about the biospatial patient registry, and requests for access.

4 Registry Administrator

Registry Administrators will have the Patient Registry menu on the toolbar (Figure 1).

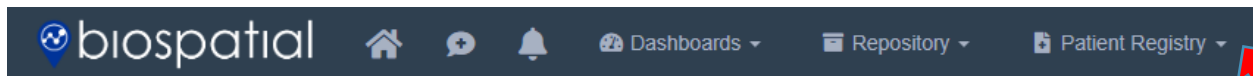


Figure 1: Patient Registry menu option on the toolbar.

Clicking on the Patient Registry dropdown will open the Patient Registry menu selections. Patient Registry administrators can:

- 1) Configure Patient Registry options
- 2) Manage facility metadata, such as IDs, regions, and designations
- 3) Create, remove, and assign roles and rights to other patient registry users
- 4) Manage and monitor third-party data imports from hospital-based users
- 5) Create and monitor data exports
- 6) Analyze registry data and run reports

Upon selection of the Registry Admin option under the Patient Registry menu, the administrative user will be routed to the Registry Admin page as shown in Figure 2.

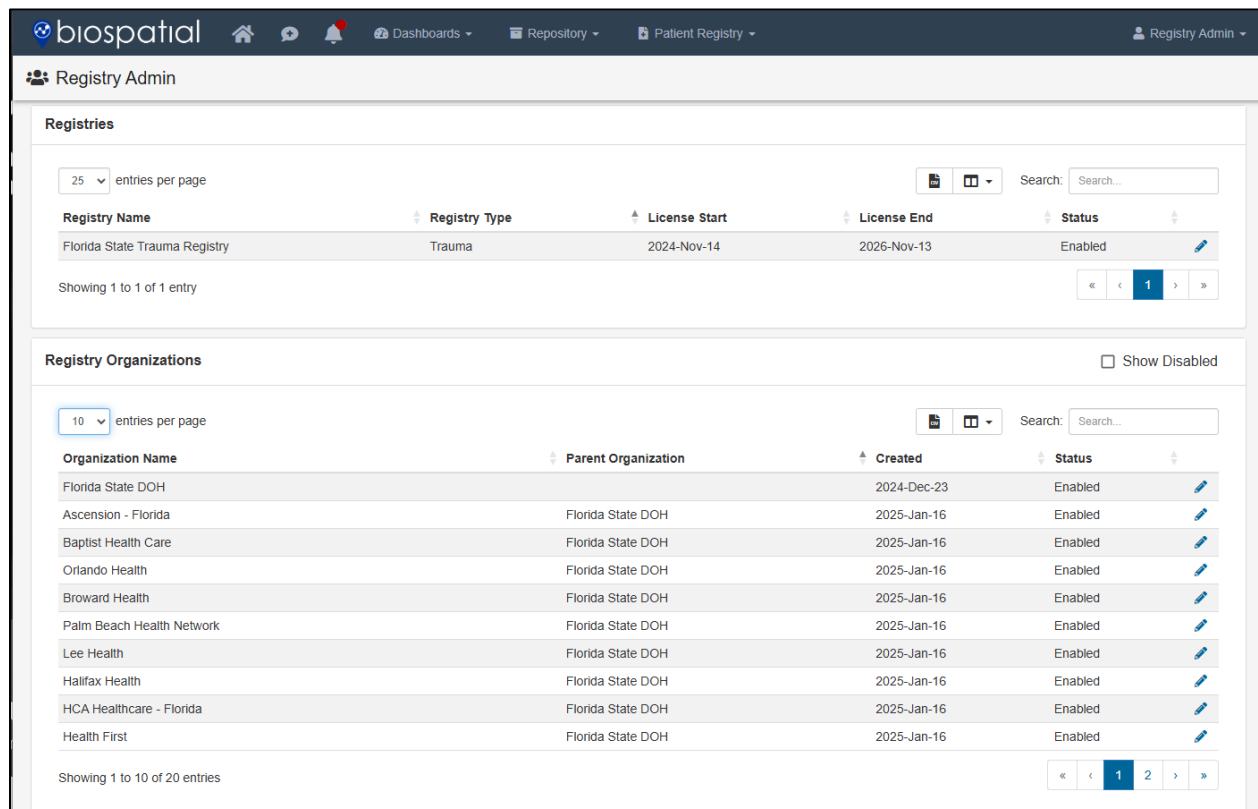


Figure 2: The Registry Admin page is accessible by patient registry administrators.

The Registry Admin page includes two tables, a Registries table and a Registry Organizations table. Each available registry type (trauma, stroke, STEMI, etc.) must be configured as a registry in the Registries

table. Registry organizations are organizations that may be granted access to one or more available registries.

4.1 Registries Table

The Registries table (Figure 3) summarizes the registries available to the registry administrator. The table has columns for the Registry Name, Registry Type, License Start, License End, and Status. Clicking on the “pencil” button on the right-hand side of a table row will allow the registry administrator to configure the selected registry. The registry administrator will be routed to the Registry Editor page (Section 4.3) for the selected registry. The table may be exported as a CSV file using the CSV export button in the upper-right corner of the table, to the left of the search bar.

Registries

25 entries per page

Search:

Registry Name	Registry Type	License Start	License End	Status	
Florida State Trauma Registry	Trauma	2024-Nov-14	2026-Nov-13	Enabled	

Showing 1 to 1 of 1 entry

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Figure 3: The Registries table on the Registry Admin page summarizes all available patient registries.

4.2 Registry Organizations Table

The Registries Organizations table (Figure 4) summarizes the registry organizations available for configuration by the registry administrator. The table has columns for the Organization Name, Parent Organization, Created (date), and Status. Clicking on the “pencil” button on the right-hand side of a table row will allow the registry administrator to configure the selected registry organization. The registry administrator will be routed to the Registry Organization Editor page (Section 4.4) for the selected registry organization. The table may be exported as a CSV file using the CSV export button in the upper-right corner of the table, to the left of the search bar.

Registry Organizations

10 entries per page

Search:

☐ Show Disabled

Organization Name	Parent Organization	Created	Status	
Florida State DOH		2024-Dec-23	Enabled	
Ascension - Florida	Florida State DOH	2025-Jan-16	Enabled	
Baptist Health Care	Florida State DOH	2025-Jan-16	Enabled	
Orlando Health	Florida State DOH	2025-Jan-16	Enabled	
Broward Health	Florida State DOH	2025-Jan-16	Enabled	
Palm Beach Health Network	Florida State DOH	2025-Jan-16	Enabled	
Lee Health	Florida State DOH	2025-Jan-16	Enabled	
Halifax Health	Florida State DOH	2025-Jan-16	Enabled	
HCA Healthcare - Florida	Florida State DOH	2025-Jan-16	Enabled	
Health First	Florida State DOH	2025-Jan-16	Enabled	

Showing 1 to 10 of 20 entries

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Figure 4: The Registry Organizations table on the Registry Admin page summarizes all available patient registries.

4.3 Registry Editor Page

The Registry Editor page (Figure 5) contains information about the selected registry, including:

- Registry Information: this section summarizes the registry name, type, status, and other features of the patient registry.
- Registry Admins: this table identifies all registry administrator accounts for the selected registry.
- Facilities: this table lists all facilities that have been assigned to the patient registry.
- Registry Organizations: this table lists all registry organizations with access to the patient registry.
- Registry Schemas: this table lists all schemas (data dictionaries) available in the patient registry.
- Registry Roles: this table lists the available roles and access rights available in the patient registry.

The screenshot displays the 'Registry Editor' page for the 'Florida State Trauma Registry'. The page is divided into three main sections:

- Registry Information:** A summary table showing the registry's details.
- Registry Admins:** A table listing all registry administrator accounts.
- Facilities:** A table listing all facilities assigned to the registry.

Registry Information Table:

Registry Name	Registry Type	Status
Florida State Trauma Registry	Trauma	Enabled
EMS Linkage	Effective Date Field	License Start
Enabled	Last Submission Time	2024-Nov-14
	License End	
	2026-Nov-13	

Registry Admins Table:

First Name	Last Name	Email	Company	Title
			Florida Department of Health	Florida Trauma Administrator
Registry	Admin		biospatial, Inc.	Test Account 1
			Florida Department of Health Trauma Section	Government Analyst

Facilities Table:

Facility Name	Street Address	City	Zip	County	State	Edit
Ascension Sacred Heart Bay	615 N Bonita Ave	Panama City	32401	Bay	FL	
Ascension Sacred Heart Pensacola	5151 N North Ninth Avenue	Pensacola	32504	Escambia	FL	
Baptist Hospital	123 Baptist Way	Pensacola	32503	Escambia	FL	
Bayfront Health St. Petersburg	701 6th Street South	St. Petersburg	33701	Pinellas	FL	
Broward Health Medical Center	1600 S Andrews Ave	Fort Lauderdale	33316	Broward	FL	
Broward Health North	201 E Sample Rd	Pompano Beach	33064	Broward	FL	
Delray Medical Center	5352 Linton BLVD	Delray Beach	33484	Palm Beach	FL	
Gulf Coast Medical Center Lee Memorial Health System	13681 Doctors Way	Fort Myers	33912	Lee	FL	
Halifax Health Medical Center	303 N Clyde Morris BLVD	Daytona Beach	32114	Volusia	FL	
HCA Florida Aventura Hospital	20900 Biscayne BLVD	Aventura	33180	Miami-Dade	FL	

Figure 5: Registry Administrators may configure the selected patient registry on the Registry Editor page.



4.3.1 Registry Admins Table

The Registry Admins table identifies all registry administrator accounts for the selected registry. You must be a registry administrator for the registry to view this table. Registry administrators may add new registry administrators by clicking the “Add Registry Admin” button in the upper-right corner of the Registry Admins table. To be added as a registry administrator, the user account must be a member of a parent-level registry organization with access to the patient registry. Users that are not part of the parent-level registry organization will not be available in the Admin Users drop-down menu of the “Add Registry Admin” modal (Figure 6).

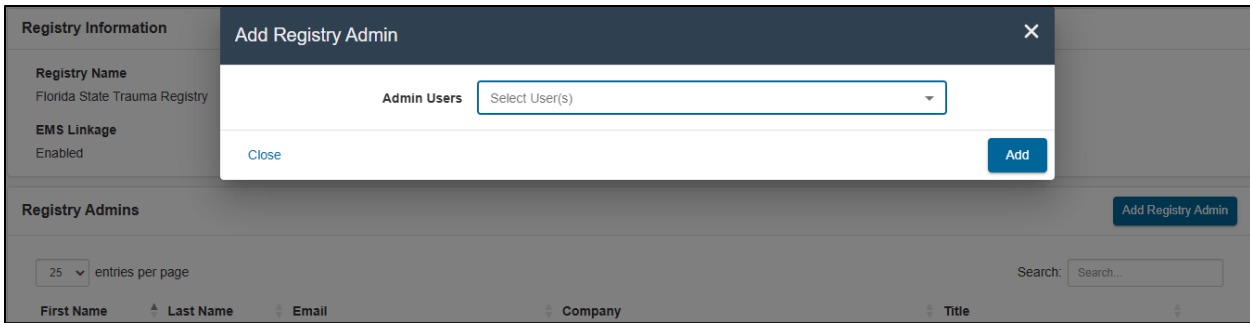


Figure 6: The Add Registry Admin modal will contain user accounts from the parent-level registry organization.

Registry administrators may be removed from the patient registry by clicking on the “trashcan” icon of the row of the registry administrator within the Registry Admins table.

4.3.2 Facilities Table

The Facilities table lists all facilities that have been assigned to the patient registry, along with identifying metadata such as the facility’s address. Clicking on the “pencil” button on the right-hand side of a table row will allow the registry administrator to configure the selected registry organization. The registry administrator will be routed to the Registry Hospital Editor page (Section 4.5) for the selected facility. The table may be exported as a CSV file using the CSV export button in the upper-right corner of the table, to the left of the search bar.

4.3.3 Registry Organizations Table

The Registry Organizations table (Figure 7) lists all registry organizations with access to the patient registry. The table has columns for the Organization Name, Parent Organization, Created (date), and Status. Clicking on the “pencil” button on the right-hand side of a table row will allow the registry administrator to configure the selected registry organization. The registry administrator will be routed to the Registry Organization Editor page (Section 4.4) for the selected registry organization. The table may be exported as a CSV file using the CSV export button in the upper-right corner of the table, to the left of the search bar.



Registry Organizations

☐ Show Disabled

10

▼

 entries per page

▼

Search:

Search...

Organization Name	Parent Organization	Created	Status	
Florida State DOH		2024-Dec-23	Enabled	
Ascension - Florida	Florida State DOH	2025-Jan-16	Enabled	
Baptist Health Care	Florida State DOH	2025-Jan-16	Enabled	
Orlando Health	Florida State DOH	2025-Jan-16	Enabled	
Broward Health	Florida State DOH	2025-Jan-16	Enabled	
Palm Beach Health Network	Florida State DOH	2025-Jan-16	Enabled	
Lee Health	Florida State DOH	2025-Jan-16	Enabled	
Halifax Health	Florida State DOH	2025-Jan-16	Enabled	
HCA Healthcare - Florida	Florida State DOH	2025-Jan-16	Enabled	
Health First	Florida State DOH	2025-Jan-16	Enabled	

Showing 1 to 10 of 20 entries

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Figure 7: The Registry Organizations table lists all registry organizations with access to the patient registry.

4.3.4 Registry Schemas Table

The Registry Schemas table (Figure 8) lists all schemas (data dictionaries) available in the patient registry. A new registry schema may be added by clicking the “Add New Registry Schema” button in the upper-right corner of the table. An existing registry schema may be edited by clicking on the “pencil” button on the right-hand side of a table row. An existing registry schema may be deleted by clicking on the “trashcan” button on the right-hand side of a table row.

Registry Schemas								Add New Registry Schema	
25 entries per page				Search:					
Name	Status	Created Date	Active Start Date	Active End Date	Last Enabled	Edit	Delete		
NTDS + TQIP 2025	Enabled	1/19/2025, 5:02:29 PM	1/1/2025, 12:00:00 AM	1/1/2026, 12:00:00 AM					
Showing 1 to 1 of 1 entry								1	

Figure 8: The Registry Schemas table lists all schemas (data dictionaries) available in the patient registry.

A biospatial administrator must add available schemas for selection in the “Add Registry Schema” modal (Figure 9). New schemas are developed by customer request and added for selection when ready. Requests for new schemas will ideally be made by the customer well in advance of the desired effective data of the schema. For example, the American College of Services releases their annual National Trauma Data Bank (NTDB) trauma data dictionary in the preceding year (the 2025 data dictionary was released in mid-2024), which gives hospitals and vendors time to prepare.

The registry schema “start datetime” and “end datetime” will determine when a registry role with the “patient registry record manipulation” access right can create a new registry record with the registry schema. For example, setting a “NTDS + TQIP 2025” registry schema to have a “1/1/2025, 12:00:00 AM” start datetime and a “1/1/2026 12:00:00 AM” end datetime will allow users to create records under this schema for any incident with a hospital visit date that falls within the 2025 calendar year.



The start and end datetimes of the registry schema may be edited after adding the schema to the registry. The registry schema may be disabled after it is no longer applicable, for example, schemas from previous years that should no longer be submitted can be disabled.

Add Registry Schema [X]

Registry Schema [Dropdown]

Active Start Datetime [MM/DD/YYYY hh:mm aa] [Calendar Icon]

Active End Datetime [MM/DD/YYYY hh:mm aa] [Calendar Icon]

Status [Enabled] [Dropdown]

[Cancel](#) [Add](#)

Figure 9: The Add Registry Schema modal is used by registry administrators to add and configure new schemas.



4.3.5 Registry Roles Table

The Registry Roles table (Figure 10) lists the available roles and access rights available in the patient registry.

Registry Roles						
	System Administrator	Hospital Administrator	Hospital Staff	Supervisor	View Only	Analyst
Hospital staff administration						
• Edit Hospital Staff (for element drop-downs)	✓	✓	•	•	•	•
• Edit Hospital POCs						
• Edit Hospital Metadata						
Registry organization administration						
• Add Organization User (to current or child organization)						
• Edit Organization User Role (to current or child organization)	✓	✓	•	•	•	•
• Assign Data Rights to Users in Organization (to current or child organization)						
• Remove Organization User (to current or child organization)						
Change record form type						
•	•	✓	•	•	•	•
View FULL record-level details						
• View FULL record-level details	•	✓	✓	✓	✓	•
• Export FULL record-level details from records table						
View REDACTED record-level details						
• View REDACTED record-level details	✓	•	•	•	•	•
• Export REDACTED record-level details from records table						

Figure 10: The Registry Roles table shows all available user roles and the associated rights for each.

Individual rights are listed as rows in the table. User roles are displayed as columns. If a user role has an access right, there will be a green checkmark in the row-column combination. For example, in Figure 10 the Hospital Administrator role has all available rights except for the “View REDACTED record-level details” right. This role does not have the “View REDACTED record-level details” because the role has the “View FULL record-level details” right. The System Administrator role has the “View REDACTED record-level details” right but not the “View FULL record-level details” right.

A full description of default roles and associated rights are documented in Section 4.3.6. Please contact biospatial support if you require new access rights or new user roles for your patient registry.



4.3.6 Default Registry Roles and Rights

Table 1: Default Registry Roles and Rights

	System Administrator	Hospital Administrator	Hospital Staff	Supervisor	View Only	Analyst
Hospital staff administration - Edit Hospital Staff (for element drop-downs) - Edit Hospital POCs - Edit Hospital Metadata	✓	✓				
Registry organization administration - Add Organization User (to current or child organization) - Edit Organization User Role (to current or child organization) - Assign Data Rights to Users in Organization (to current or child organization) - Remove Organization User (to current or child organization)	✓	✓				
Change record form type		✓				
View FULL record-level details - View FULL record-level details - Export FULL record-level details from records table		✓	✓	✓	✓	
View REDACTED record-level details - View REDACTED record-level details - Export REDACTED record-level details from records table	✓					
Patient registry record manipulation - Create/Edit Records - Lock Records - Delete Records - Export Individual Records		✓	✓	✓		
Approve patient registry records		✓		✓		
Patient registry record case supervision - Perform QA/QI on a registry record - Add attachments to a registry record		✓	✓	✓		
EMS record linkage - View EMS Records - Link/De-link EMS Records		✓	✓	✓		
Bulk import of patient registry records	✓	✓				
Bulk export of patient registry records	✓	✓				



	System Administrator	Hospital Administrator	Hospital Staff	Supervisor	View Only	Analyst
Default registry access - Aggregate data access - Ability to query/facet any element in the REDACTED data set	✓	✓	✓	✓	✓	✓



4.4 Registry Organization Editor Page

The Registry Organization Editor page contains information about the selected registry organization, including:

- Registry Organization Information: this section summarizes the registry name, reviews required setting, dashboard set, and status.
- Registry Organization Access table: the facilities that the registry organization has access/rights to are specified and configured here.
- Registry Organization Users table: this table specifies the users with access to the patient registry under the registry organization.
- Registry Organization User Access table: this table specifies the access rights and roles for selected users in the Registry Organization Users table.

4.4.1 Registry Organization Access Table

The Registry Organization Access table (Figure 11) lists all assigned facilities in the registry organization. Users within the organization can only be granted access right to the facilities of the organization, under the organization. A user may be a member of multiple registry organizations and be assigned different user roles for different facilities in each registry organization.

Registry Name	Hospital
Florida State Trauma Registry	Ascension Sacred Heart Bay
Florida State Trauma Registry	Ascension Sacred Heart Pensacola

Figure 11: The Registry Organization Access table lists all assigned facilities in the registry organization.

To add a new facility to the registry organization, click the “Add Access Right” button in the upper-right corner of the table. A new row will appear in the table. Select the desired patient registry and one or more hospitals (facilities) to add to the registry. When done, click the “floppy disk” save button to add the facilities. To cancel the addition, click the “X” button on the row.

To remove all facilities from the registry organization, click the “Remove All Access Rights” button in the upper-right corner of the table. Note that when a facility right is removed from the registry organization, any associated user rights for the removed facilities will also be removed.

4.4.2 Registry Organization Users Table

The Registry Organization Users table (Figure 12) specifies the users with access to the patient registry under the registry organization. To access the patient registry, users must be assigned rights under a registry organization. Two steps must be completed to add a user and assign access rights. The first step is to add the user to the registry organization via the Registry Organization Users table.

To add a user, click the “Add Organization User” button in the upper-right corner of the table. An “Add New User” modal will appear. Enter the user’s email address into the “Email” textbox of the modal. Click the “Add” button to add that user and keep the modal open to add additional users or click the “Add &



Close” button to add the user and close the modal. The second step is to add access rights for all users by following the steps in section 4.4.3.

First Name	Last Name	Email	Company	Title
M	F		Ascension Sacred Heart Bay	Trauma Program Manager

Figure 12: The Registry Organization Users table specifies the users with access under the registry organization.

Clicking on the “pencil” button on the right-hand side of a table row will allow a registry organization administrator to view the user’s profile. Clicking on the “trash can” button on the right-hand side of a table row will remove that user from the registry organization and all their assigned access rights in the registry organization.

4.4.3 Registry Organization User Access Table

The Registry Organization User Access table (Figure 13) specifies the access rights and roles for selected users in the Registry Organization Users table. The table will not have entries until users are selected in the Registry Organization Users table (Figure 12). Users must have access rights to one or more facilities to access the patient registry.

User	Registry Name	Hospital	Role
Please select a user to view access rights			

Figure 13: The Registry Organization User Access table specifies the access rights and roles for selected users.

After selecting one or more users in the Registry Organization Users table, the Registry Organization User Access table will update to show any assigned access rights within the registry organization (Figure 14).

User	Registry Name	Hospital	Role
[Redacted]	Florida State Trauma Registry	Ascension Sacred Heart Bay	Hospital Administrator

Figure 14: A user has been assigned a facility access right in the Registry Organization User Access table.

To add a new facility right to the selected user(s), click the “Add Access Right” button in the upper-right corner of the table. A new row will appear in the table. Select the desired patient registry in the “Registry Name” column, one or more facilities in the “Hospital” column, and the desired user role in the “Role” column. Note that hovering over a role option will open a tooltip that lists the rights for the role



(Figure 15). When done, click the “floppy disk” save button to add the new access right. To cancel the addition, click the “X” button on the row.

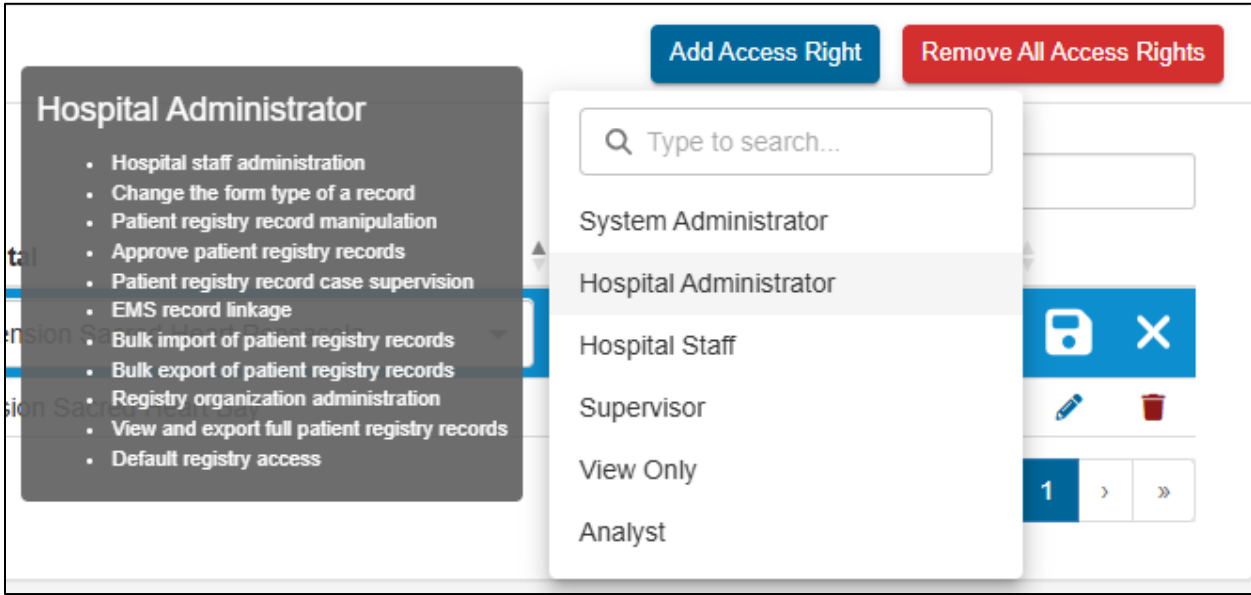


Figure 15: Hovering over a user role will open a tooltip showing all rights for that role.

To remove all access rights from the selected user(s), click the “Remove All Access Rights” button in the upper-right corner of the table.

Clicking on the “pencil” button on the right-hand side of a table row will enable editing of the selected user’s role for that access right. Clicking on the “trash can” button on the right-hand side of a table row will remove that access right in the registry organization.



4.5 Registry Hospital Editor Page

The Registry Hospital Editor Page (Figure 16) lists metadata about a facility that is available to the registry, including:

- Facility name, address, type, subtype, network, and ownership
- Designations
- Identification Numbers
- Points of Contact
- Facility Registries

Registry Hospital: Ascension Sacred Heart Bay

Back

Ascension Sacred Heart Bay ⓘ

Edit ✎

615 N Bonita Ave
Panama City, FL 32401
850-769-1511
[Website](#)

Facility Type: Hospital
Facility Subtype: Short Term Acute Care Hospital
Network: Ascension Sacred Heart Health System
Ownership: Voluntary Nonprofit

Number of Beds: 323
SNF Related: Yes
Helipad: Yes

Designations ⓘ

Add +

	Designation	Start Date	Expiration Date
✎	Trauma Level 2	2013-Dec-01	

Showing 1 to 1 of 1 entry

active

= active

Identification Numbers ⓘ

Type	Value
FL AHCA	100026
FL Trauma	12030

Showing 1 to 2 of 2 entries

Points of Contact ⓘ

Add +

No Points of Contact

Facility Registries

▼ Florida State Trauma Registry

Registry Type: Trauma

Facility Regions ⓘ

Add +

Region Group	Region
FL Trauma	Region 2

Showing 1 to 1 of 1 entry

Figure 16: The Registry Hospital page displays metadata and configurable options for the selected facility.



4.5.1 Facility Metadata

Users with the “Hospital staff administration” right for a facility, which is a right of the default system administrator and hospital administrator roles, may edit the metadata of that facility. To edit the facility metadata, click on the “Edit” button to the right of the facility name. This will open a modal as shown in Figure 17.

Edit Facility

Name

Ascension Sacred Heart Bay

Address Line 1

615 N Bonita Ave

Address Line 2

City

Panama City

State

Florida - 12

Zip Code

32401

County

Bay - 12005

Phone Number

850-769-1511

Website URL

https://healthcare.ascension.org/Locations/Florida/FLPEN/Panama-City-Ascension-Sacred-Heart-Bay

Facility Type

Hospital

Facility Subtype

Short Term Acute Care Hospital

Network

Ascension Sacred Heart Health System

Ownership

Voluntary Nonprofit

Number of Beds

323

SNF Related

Yes

Helipad

Yes

Cancel

Reset

Update

Figure 17: Edit Facility modal is used to update information about the facility.



4.5.2 Facility Designations

Patient registry administrators may edit the designations of a facility. To edit the facility metadata, click on the “Add +” button to the right of the Designations text. This will open a modal as shown in Figure 18.

Figure 18: The Add Facility Designation modal allows for the addition of new facility designations.

The designation is required. The start and end dates are optional. Multiple designations may be assigned to the same facility. Multiple assignments of the same designation type are permissible so long as the effective dates do not conflict. For example, a facility may have been designated as a level 2 trauma center until 7/4/23 (expiration date) and was then designated as a level 1 trauma center on 7/4/23 (start date).

4.5.3 Facility Identification Numbers

Facility identification numbers are critical for controlling access to patient registry data and for ensuring that registry records are associated with the correct facility. Currently only biospatial administrators may configure a facility’s identifiers. Please contact biospatial support to add or edit identifiers.

4.5.4 Facility Points of Contact

Users with the “Hospital staff administration” right for a facility, which is a right of the default system administrator and hospital administrator roles, may add and edit facility points of contact. Adding points of contact is useful to facilitate communication between the registry administrators and the hospitals.

To add a point of contact, click on the “Add +” button to the right of the Points of Contact text. This will open a modal as shown in Figure 19.

Figure 19: The Add Point of Contact modal allows for the addition of new facility points of contact.



Select an appropriate role, enter a user email address, then click the “Add” button. After adding, the new entry will appear in the Point of Contact section. If the user has an existing account in the biospatial platform, their contact information will be displayed.

4.5.5 Facility Registries

Patient registry administrators may add and remove the associated facility regions of a facility. To add a new facility region, click on the “Add +” button to the right of the Facility Regions text. This will open a modal as shown in Figure 20.

Figure 20: The Add Facility Region modal allows for the addition of new facility regions.

Select a region, then click the “Add” button. After adding, the new entry will appear in the Facility Regions section. A facility may have at most one region value for each region group type.

To delete a facility region, click the “trash can” button on the row of the region to be removed.

5 Registry Import

The Registry Import dashboard (Figure 21) is used to import registry records into the patient registry. Users with the “Bulk import of patient registry records” right for a facility, which is a right of the default system administrator and hospital administrator roles, may import records for that facility on this dashboard.

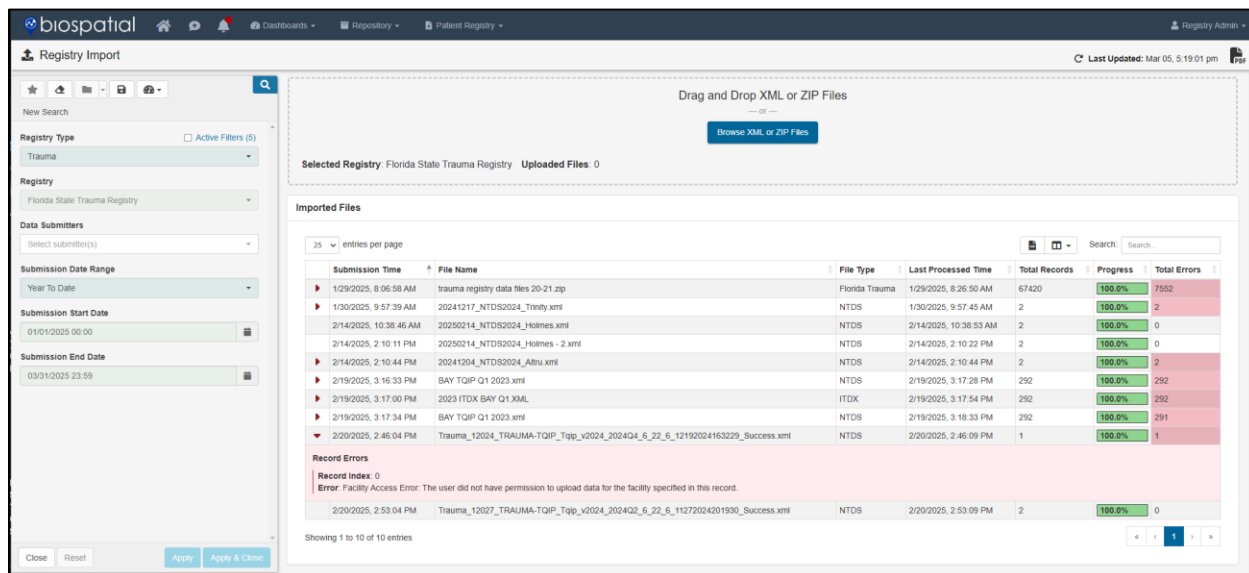


Figure 21: The Registry Import dashboard is used to import registry records into the patient registry.

The patient registry must be configured to accept the file types that will be uploaded by authorized users. For example, a trauma patient registry may accept the 2025 American College of Surgeons (ACS) National Trauma Data Bank (NTDB) eXtensible Markup Language (XML) file format. Users would be able to upload NTDB XML files for their facilities on this dashboard to that trauma patient registry.

5.1 Registry Import Dashboard Search Panel

The Registry Import Dashboard search panel is located on the left side of the dashboard (Figure 21). This search panel does not limit the user from importing files into the registry, but it will influence the entries shown in the Imported Files table. In particular, make sure that the specified date range includes the submission time of any submitted files you wish to review in the Imported Files table. Other search parameters, like “Data Submitters”, may be used to filter the Imported Files table.

5.2 Importing Files

To import files, the user may “drag and drop” the file into the top panel of the dashboard or they can browse for the file using their operating system’s file system by clicking the “Browse XML or ZIP Files”. Note that the text shown in this box and button may vary based on the types of files accepted by your patient registry.

After performing one of the two import step options, the file will appear as a card in the panel for review (Figure 22). File metadata will be displayed in the panel card. To view more detailed information about the number of records, patients, facilities, incident states, and incident counties in the file, click the “Show Details” link on the bottom-right of the card (to the left of the “Submit” button).

To remove the file before processing, click the “Remove” link in the bottom-left of the card.

To initiate processing of the queued file, click the “Submit” button in the bottom-right of the card.

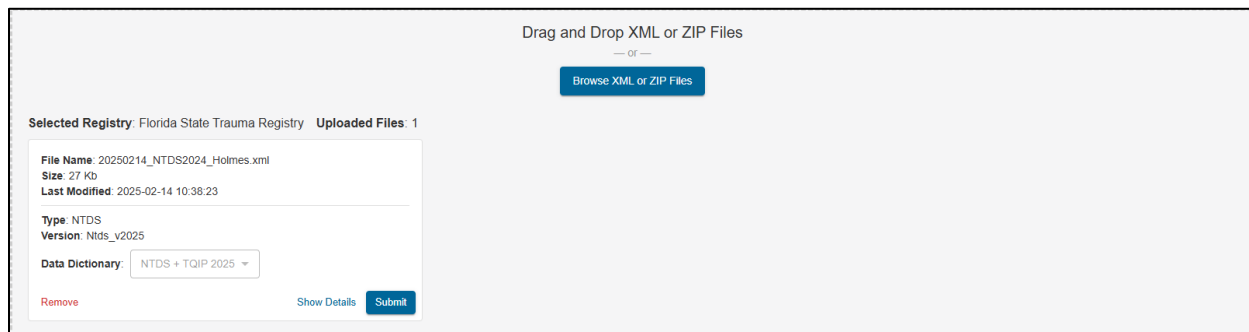


Figure 22: A new file has been added for import on the Registry Import dashboard.

Once the file is submitted for processing, the Imported Files table will have a new entry for the submitted file. The time to process the submitted file depends on the number of records in the file and the complexity of each file, among other factors. Click the refresh button (Figure 23) in the upper right of the dashboard to refresh the processing status of files in the Imported Files table.

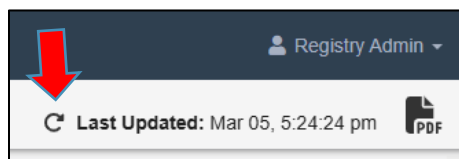


Figure 23: Click the Refresh button to update the processing status of imported records.

Once the submitted file has been processed, any processing errors will be shown in the “Total Errors” column. A red triangle will be displayed in the left-most column of the Imported Files table in the file’s row if processing resulted in any errors. Clicking on this red triangle will expand details about the errors (see Figure 21).

Note that these errors are not record validation errors, but rather initial processing errors related to file formats, facility identifiers, facility access rights of the uploading user, and other fundamental checks. Common processing errors on the Registry Import dashboard are listed in Table 2.

If a file is submitted with multiple records and some of those records have no errors, those records will be fully processed while the records with errors will not be processed further. Records that are successfully processed will be available for review on the Registry Ingest dashboard (section 6). Files may be resubmitted to the patient registry after updating the file for any reported errors. Resubmitted records do not create record duplicates if the record identifiers are not changed between submissions.

Entries in the Imported Files table may be exported as a comma-separated value (CSV) file by clicking the CSV file button in the upper-right corner of the table. There is also a button to edit the visible columns and a search bar that may be used to filter entries in the table.



Error Type	Error Description	Possible Resolution
Facility Access Error	The user did not have permission to upload data for the facility specified in this record.	Confirm that the user has the right to upload data for all facilities represented in the file.
Unknown Facility ID Error	The facility ID reported in this record was unrecognized. Please ensure the reported facility ID matches the ID assigned for the registry.	Confirm that the facility identifiers in the record match the configured identifiers for the facility in the patient registry.
TypeError	An unknown processing error has occurred (TypeError). Please contact the biospatial helpdesk.	Contact the biospatial helpdesk at support@imagetrend.com . with references to the file (submission time, file name, patient registry, registry organization).
ParserError	An unknown processing error has occurred (ParserError). Please contact the biospatial helpdesk.	Contact the biospatial helpdesk at support@imagetrend.com . with references to the file (submission time, file name, patient registry, registry organization).

Table 2: Common processing errors on the Registry Import dashboard.

6 Registry Ingest

The Registry Ingest dashboard (Figure 24) is used to review validation results of registry records that have been imported into or created within the patient registry. Users with the “Bulk import of patient registry records” right for a facility, which is a right of the default system administrator and hospital administrator roles, may review that facility’s processed records on this dashboard. Changes made to the Registry Ingest dashboard do not change any of the underlying data that has been submitted to the registry.

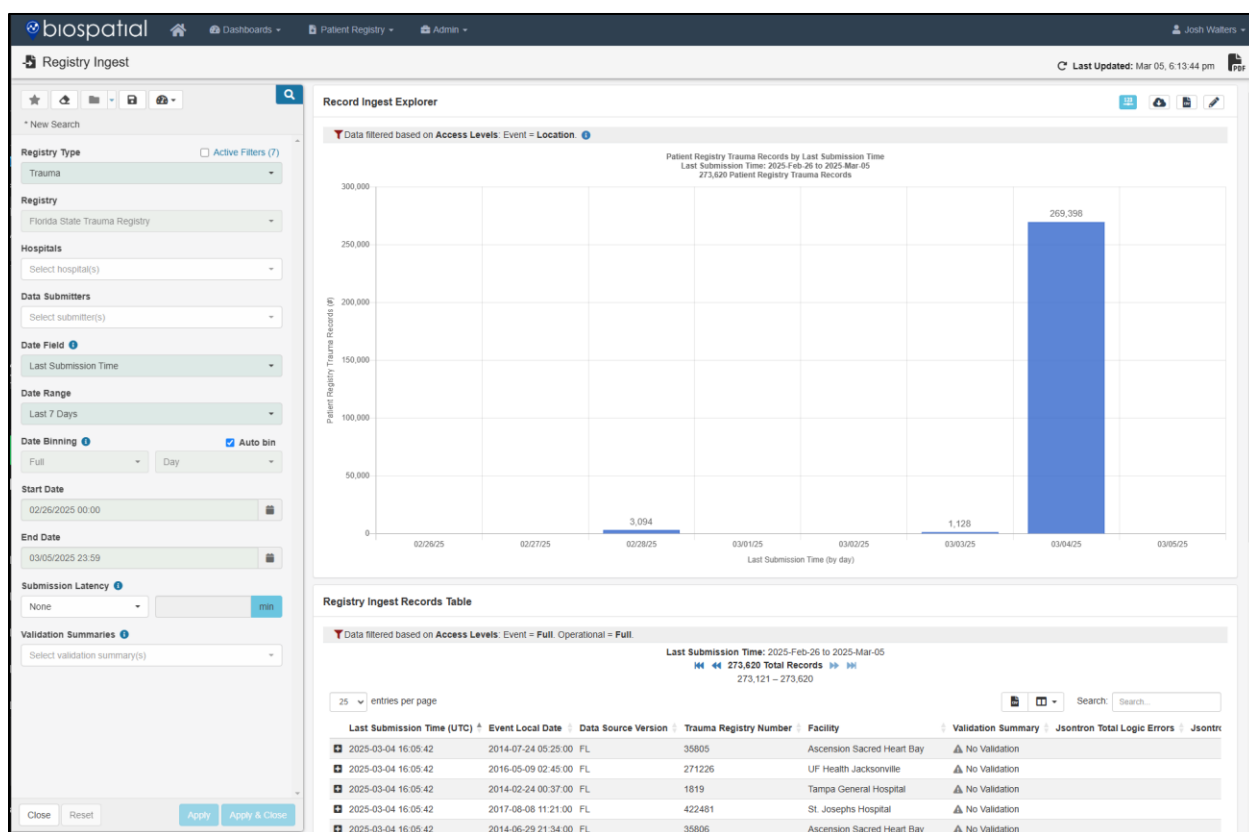


Figure 24: The Registry Ingest dashboard is useful for reviewing validation results.

6.1 Registry Ingest Dashboard Search Panel

The Registry Ingest Dashboard search panel is located on the left side of the dashboard (Figure 24). This search panel is useful for filtering the records that will be displayed on the charts and tables of the dashboard.

The “Date Field” search parameter selects the time option used to filter data on the dashboard. The search parameter has options for “Last Submission Time” and “Original Submission Time”, which are both related to the time that the record was *submitted* to the patient registry (not the event or visit time). Original submission time documents the first time the record was submitted while last submission time considers the time of the original submission time as well as record updates.

The “Validation Summaries” search parameter enables you to filter data to the records that match the specified validation result types. For example, to find records that had “Jsontron Error” validation results, select that option in this search parameter and then press the “Apply” button. The Record



Ingest Explorer and Registry Ingest Records Table will update to only include records that had that validation error type.

6.2 Registry Ingest Explorer

The Registry Ingest Explorer is a highly configurable chart that is useful for exploring the validation results and other metadata related to registry records that have been submitted to the patient registry. In the upper-right corner of the Registry Ingest Explorer chart are several buttons that are useful for configuration and export (Figure 25).



Figure 25: The Registry Ingest Explorer has buttons to toggle labels, export as PNG file, export as CSV file, and configuration of the chart settings.

The first button (“123”) will toggle the display of data labels within the chart.

The second button (cloud with a download arrow) will download the chart as a PNG image file.

The third button (“CSV”) will download the data used to create the chart as a comma-separated value (“CSV”) file. This file can be loaded into spreadsheet applications like Microsoft Excel or Google Sheets. If the chart is configured to show the “top N” rows or entries and there are more than “N” entries in the data, all entries will be exported in the CSV file.

The fourth button (pencil) is used to configure the chart. Clicking on this button will open a form to change the configuration settings (Figure 26).

Figure 26: Registry Ingest Explorer configuration settings are available after clicking the “pencil” button.



A brief explanation of each option follows.

Parameter	Options	Description
Mode	Default Temporal Trends	The default mode is the most used option and has the most flexibility. Use Temporal Trends to make a chart of temporal trends with multiple trend lines, one for each time section (e.g., year over year).
Chart Type	Default Mode: Doughnut, Horizontal Bar, Line, Pie, Polar Area, Radar, Vertical Bar Temporal Trends Mode: Horizontal Bar, Line, Vertical Bar	You may change the chart type to one of several options, some of which are 1-dimensional (doughnut, pie, polar area) and some that are two-dimensional.
Measure	All chart types: Count Two-dimensional chart types: Count, Jsontron Total Errors, Jsontron Total Logic Errors, Jsontron Total Warnings, Submission Latency	When the “Count” option is selected, counts of the selected dimension or group by will be displayed. Other metric options may be displayed as statistics (mean, median, etc.). When the “Count” option is selected, an option to display the data as a percentage is exposed.
Dimension	Various	Configure the primary data dimension of the chart.
Group By	Various	Configure the secondary data dimension of the chart.
Differential	None, Day, Week, Month, Year	Use differential settings to compare the current time range defined in the search with that of a time range offset by the specified amount.

When the configuration settings are changed, the “Apply” buttons will change color, indicating that you must apply the settings to update the chart. Feel free to explore the many settings.

6.3 Registry Ingest Records Table

The Registry Ingest Records Table contains record-level data for all registry records returned in the query. The validation results for each record may be reviewed for records in the table by expanding the record when the left-most “+” button is clicked.

The CSV button in the upper-right corner of the table will open a modal to enable the bulk download of records from the table (Figure 27). Additional columns may be added to the export. Note that the Row Count option will limit the number of exported records, so set this to be equal to or greater than the number of records that you want to export.



Registry Ingest Records Table Export

All bulk exports of biospatial data will be tracked and reported. The use of exported data must conform to the biospatial EUDAA, and to any applicable HIPAA laws.

Select Columns

10 of 24 selected

Filename

registry-ingest-table .csv

Row Count

500

Order By

Last Submission Time (UTC) Ascending

Confirm Cancel

Figure 27: Clicking the CSV button in the Registry Ingest Records Table will open a modal to confirm export settings.

The column configuration button located next to the CSV button will enable you to add or remove columns displayed in the Registry Ingest Records Table.

The “Search” bar in the upper-right corner of the table will search over any of the enabled columns of the table for the current group of 500 records. It will not search over the entire dataset if there are more than 500 records.

To move through groups of 500 records, click on the arrow buttons at the top of the table (Figure 28).

Last Submission Time: 2025-Jan-01 to 2025-Mar-31

◀◀ 785,822 Total Records ▶▶

785,323 – 785,822

Figure 28: Use arrows to move through 500 records at a time or to jump to the beginning or end of the data.

Use the arrows or numbered page buttons at the bottom right corner of the table (Figure 29) to move through pages of records.

◀◀ ◀ 1 2 3 ... 20 ▶ ▶▶

Figure 29: Use arrows to move through pages of records in the current group of up to 500 records.

7 Registry Export

The Registry Export dashboard (Figure 30) is used to bulk export registry records from the patient registry. Users with the “Bulk export of patient registry records” right for a facility, which is a right of the default system administrator and hospital administrator roles, may export that facility’s records on this dashboard.

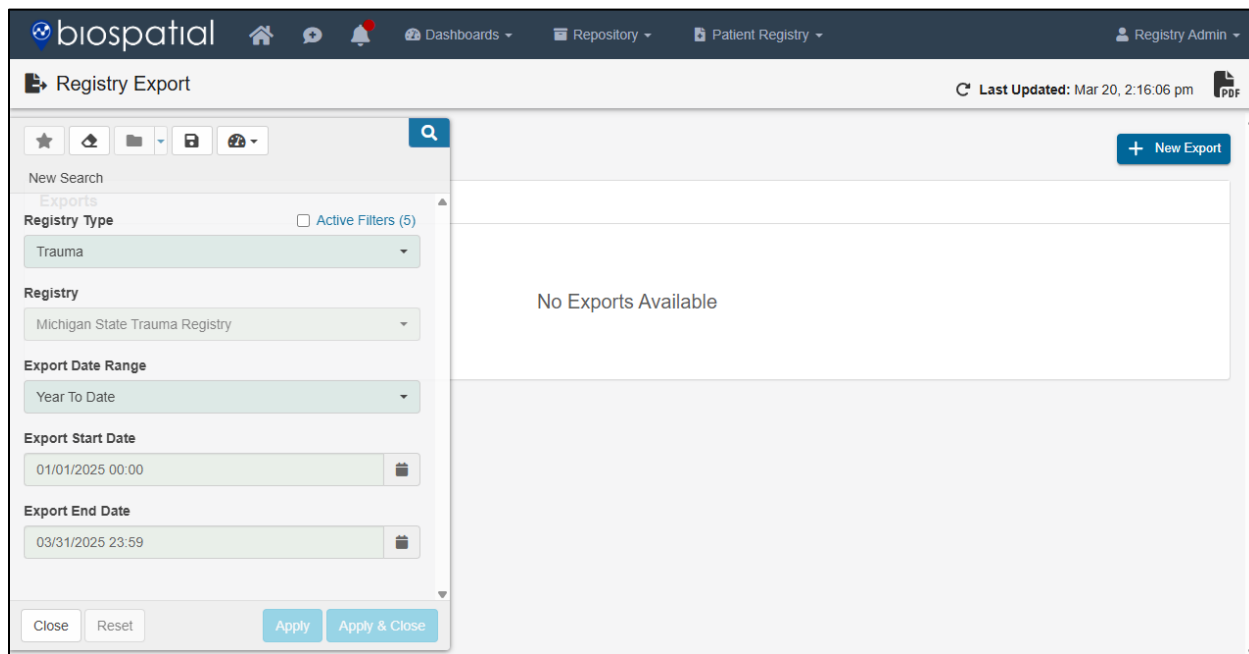


Figure 30: The Registry Export dashboard is useful for the bulk export of your registry data.

7.1 Registry Export Dashboard Search Panel

The Registry Export Dashboard search panel is located on the left side of the dashboard (Figure 30). This search panel is useful for filtering the exports that will be displayed in the Exports table.

7.2 Exports Table

The Exports table displays all exports that meet the specified search criteria.

7.3 Creating a New Export

To create a new export, click the “+ New Export” button located in the upper-right corner of the Registry Export dashboard (Figure 30). The “New Data Export” form will appear (Figure 31).

New Data Export

Create a new data export Required

Registry Michigan State Trauma Registry

Hospitals All Facilities

▼ Destination

Destination File Download

Filename

Output Format NTDS XML

▼ Primary Date/Time Filter

Primary Date/Time Filter Filter records by local patient visit time

Start Date/Time 03/20/2025 00:00

End Date/Time 03/20/2025 00:00

▼ Optional Filters

Add Filters Filter records by injury mechanisms +

No Filters selected. Select an option and click + to get started.

Cancel Review →

Figure 31: The New Data Export form is used to configure the parameters of a new export of facility records from the registry.

Complete all entries of the form and press the “Review” button in the lower-right corner of the form to review the configuration and begin the export of the requested data.

More information about the Registry Export dashboard and the export process will be provided in a future version of this document.

8 Registry Records

The Registry Records dashboard (Figure 32) is used by hospital-based users to manage patients and create new registry records within the patient registry. Users with the “Patient registry record manipulation” right for a facility, which is a right of the default hospital administrator, hospital staff, and supervisor roles, may access this dashboard.

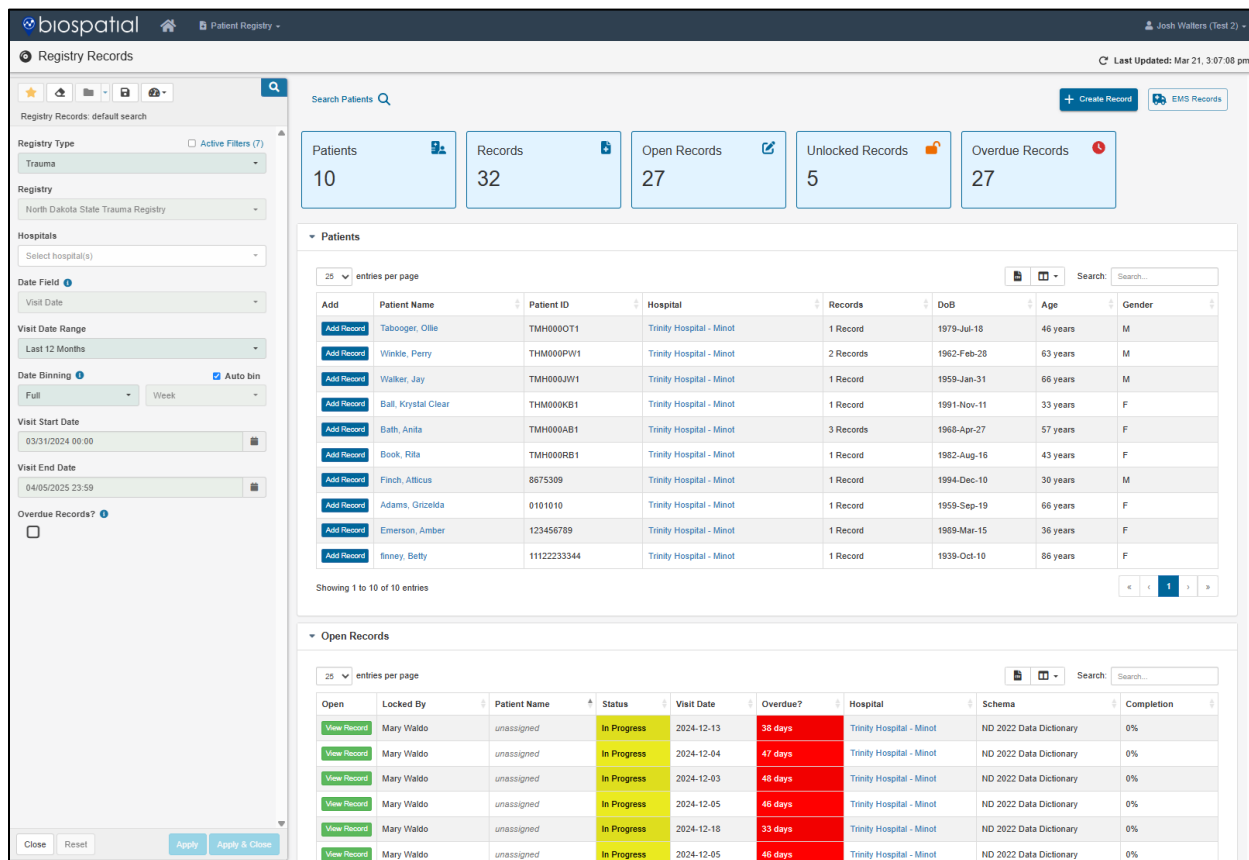


Figure 32: The Registry Records dashboard is the central dashboard for hospital-based users.

The patient registry dashboard is a patient-centric view of all patient registry records created by your hospitals' users. Patients are found within the Patients table, open patient registry records are found in the Open Records table, and processed records are found in the Completed Records table.

A new patient record may be created in one of three ways:

- From scratch: click on the blue “+ Create Record” button in the upper-right corner of the dashboard.
- From an existing patient: click on the blue “Add Record” button on a patient row in the Patients table.
- From an EMS record: click on the “EMS Records” button in the upper-right corner of the dashboard. This will take you to the EMS Records Search dashboard (section 9).

More information about the Registry Records dashboard and the record creation process will be provided in a future version of this document.

9 EMS Record Search

The EMS Records Search dashboard (Figure 33) is used by hospital-based users to find EMS records for patients transported to or from their hospital(s). These EMS records may be associated with (linked to) existing patient registry records or may be used to create a new patient registry record. Users with the “EMS record linkage” right for a facility, which is a right of the default hospital administrator, hospital staff, and supervisor roles, may access this dashboard. Additionally, the EMS record linkage feature must be enabled in the patient registry.

The screenshot shows the biospatial EMS Record Search dashboard. On the left is a search panel with various filters. The main area has a 'Create Registry Record' section and a table for 'EMS Records'. Summary statistics are shown at the top right of the main area.

EMS Records	Incident States	Incident Counties	Destination Hospitals
1,133	1	5	19

Figure 33: The EMS Record Search dashboard may be used to find EMS records associated with your hospital.

9.1 EMS Record Search Panel

The EMS Record Search Dashboard search panel is located on the left side of the dashboard (Figure 33). This search panel is useful for filtering the EMS records that will be returned to the EMS Records table. Use the available search parameters to isolate the desired patient population. Click the “Apply” or “Apply & Close” buttons at the bottom of the search panel to update the search.

Click the “Load EMS Records” in the EMS Records table to view the records that match your search criteria.

9.2 EMS Records Table

The EMS Records Table contains record-level data for all EMS records returned in the query. The record details for each record may be reviewed for records in the table by expanding the record when the left-most “+” button is clicked.

The column configuration button located next to the CSV button will enable you to add or remove columns displayed in the Registry Ingest Records Table.

The “Search” bar in the upper-right corner of the table will search over any of the enabled columns of the table for the current group of 500 records. It will not search over the entire dataset if there are more than 500 records.

To move through groups of 500 records, click on the arrow buttons at the top of the table (Figure 34).

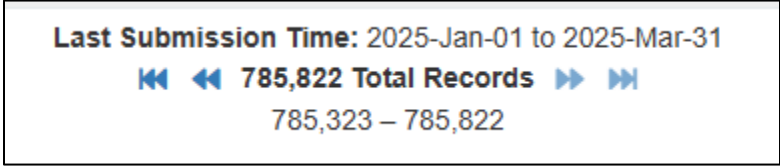


Figure 34: Use arrows to move through 500 records at a time or to jump to the beginning or end of the data.

Use the arrows or numbered page buttons at the bottom right corner of the table (Figure 35) to move through pages of records.



Figure 35: Use arrows to move through pages of records in the current group of up to 500 records.

9.3 Creating a Patient Registry Record from an EMS Record

To create a new patient registry record from an EMS record, click on the desired EMS record in the EMS records table. When clicked the row in the EMS Records table should turn blue and the record should appear at the top of the dashboard in the “Create Registry Record” section (Figure 36).

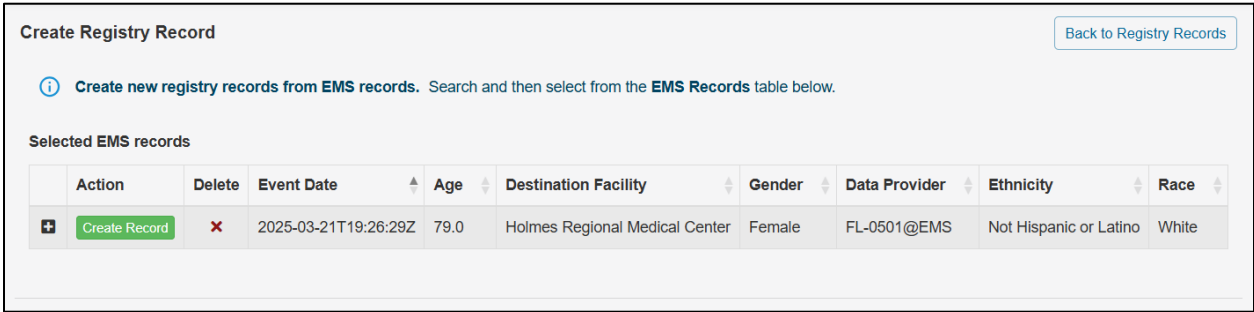
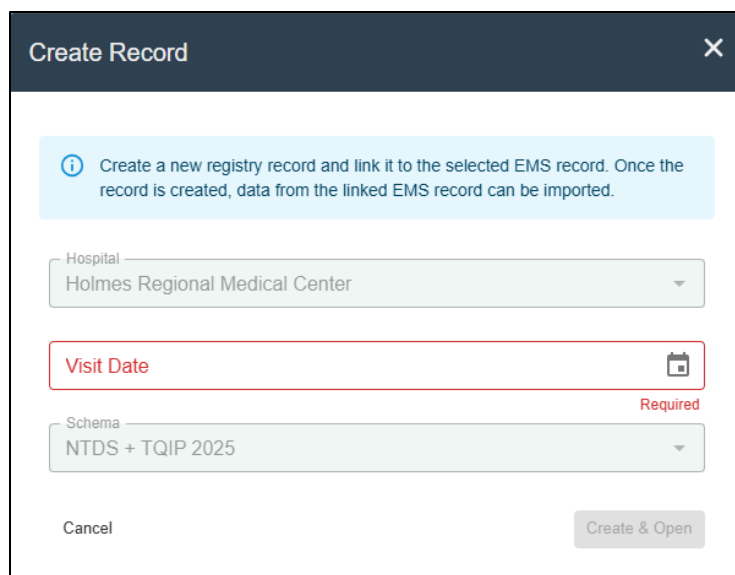


Figure 36: The Create Registry Record section will populate with any selected records from the EMS Records table.

You can review the details of the selected EMS record by clicking the “+” button on the left-hand side of the EMS record row.

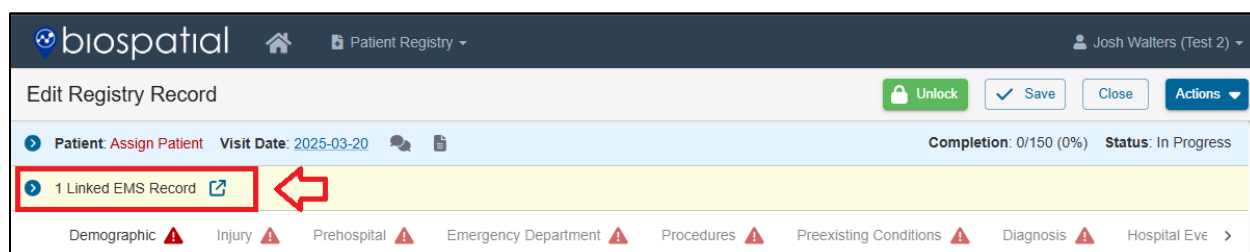
Click the green “Create Record” button on the desired EMS record to open the Create Record modal (Figure 37). Enter the patient’s visit date at your hospital and update the hospital and record schema as applicable, then click the “Create & Open” button. A new patient registry record will be created, and you will be taken to the “Edit Registry Record” page for the new record.



The "Create Record" modal is a dark-themed window with a close button (X) in the top right corner. It contains an information icon and a text box stating: "Create a new registry record and link it to the selected EMS record. Once the record is created, data from the linked EMS record can be imported." Below this, there are three input fields: "Hospital" with a dropdown menu showing "Holmes Regional Medical Center", "Visit Date" with a calendar icon and a red "Required" label, and "Schema" with a dropdown menu showing "NTDS + TQIP 2025". At the bottom, there are two buttons: "Cancel" and "Create & Open".

Figure 37: Create a new patient registry record from an EMS record in the "Create Record" modal.

The new patient registry record will be automatically linked to the EMS record from which it was spawned. The linked EMS record may be reviewed at the top of the page, underneath the assigned patient section (Figure 38).



The "Edit Registry Record" page is a light-themed interface. At the top, there is a header bar with the "biospatial" logo, a home icon, a "Patient Registry" dropdown, and a user profile "Josh Walters (Test 2)". Below the header, there is a sub-header "Edit Registry Record" with buttons for "Unlock", "Save", "Close", and "Actions". The main content area shows "Patient: Assign Patient" and "Visit Date: 2025-03-20". A yellow banner highlights "1 Linked EMS Record" with a red box and a red arrow pointing to it. Below the banner, there is a progress bar showing "Completion: 0/150 (0%)" and "Status: In Progress". At the bottom, there is a list of categories with red warning icons: "Demographic", "Injury", "Prehospital", "Emergency Department", "Procedures", "Preexisting Conditions", "Diagnosis", and "Hospital Eve".

Figure 38: Expand the Linked EMS Record section to review any details of the linked EMS record.

There are options to import data from the EMS record into the patient registry record or to remove the link between the EMS record and the patient registry record.

Clicking on the button shaped like with a box with an arrow pointing to the upper-right corner will take you back to the EMS Records Search page.