

# i2b2-based Registries Home

## i2b2-based Registries

This is the home of the Related Project - i2b2-based Registries space.

The Cincinnati Children's Hospital Medical Center (CCHMC) i2b2 team has extended i2b2 to create an enhanced patient registry and an associated web-based toolkit. It provides the necessary functionality in a modular fashion, allowing users to choose the capabilities that are appropriate for their project. The enhanced registry architecture includes linkage to the EHR and an application layer that allows the development of functionality to support quality improvement and comparative effectiveness research. There are capabilities for data collection to capture information that is not collected in an EHR, as well as mechanisms for reporting and visualization.

Versions of the CCHMC i2b2 code and data documents can be found at the CCHMC SVN: <https://bmi.cchmc.org/svn/i2b2/i2b2/public/>

### Example Project: Liver Transplant Registry

Within CCHMC's i2b2 based Liver Transplant Registry users can:

1. **View/Edit EHR data:** Specific EHR fields are identified, mapped to i2b2, and displayed in either a read only, or editable format. Any changes are tracked through an audit trail and users are alerted through a color coding system if a new/different value is available to pull from the EHR.
2. **Perform Data Entry:** Through the use of forms users can add additional data to the i2b2 database.
3. **Run Pre-defined Reports:** Numerous pre-defined reports have been developed for users to run as needed.

### View/Edit EHR Data: Patient Information

The screenshot displays the i2b2 Workbench interface for the Liver Registry. The top navigation bar includes the logo, project name 'Liver QA/Test Environment', and a list of menu items: Home, Find Patients, Chart Review, Data Entry, Analysis, Import/Export, and Feedback. A 'Welcome' message and a '(Logout)' link are also present. Below the navigation bar, there are tabs for 'Data Entry' and 'Add Patient'. A 'Choose Study' dropdown is set to 'Liver Registry', with 'Change Patient' and 'Switch to View mode' buttons. The patient information fields are displayed in a table format, with red 'E' icons indicating editability. The fields include Name, Alias, MRN, i2b2 ID, and DOB. The main content area is titled 'Liver Registry' and shows 'Data Last Refreshed: 02/27/2011' and 'Patient Last Updated: 03/03/2011, by [redacted]'. Below this, there are tabs for 'Patient Info', 'Clinical Info', and 'Research'. The 'Patient Information' tab is active, showing a 'Save' button and a list of fields: Demographics, Contact Info, Care Giver Info, Insurance Info, and Provider Info. The 'Patient Demographics' section includes fields for MRN, First Name, Middle Name, Last Name, Alias, and DOB, each with a red 'E' icon. The footer contains the copyright notice: '©2003-2010, Cincinnati Children's Hospital Medical Center CCHMC | i2b2admin'.

### View/Edit EHR Data: Clinical Information

Data Entry **Add Patient**

Choose Study: **Liver Registry** [Change Patient](#) [Switch to 'View' mode](#)

Name: [redacted]      Alias: [redacted]      MRN: [redacted]      i2b2 ID: [redacted]      DOB: [redacted]

Your form contains errors. [Click here to view](#)

## Liver Registry

Data Last Refreshed: 02/27/2011  
 Patient Last Updated: 03/03/2011, by [redacted]

[Patient Info](#)   [Clinical Info](#)   [Research](#)

Clinical Information		Save
<b>Patient Tracking/Current Score (if on WL)</b>		
Tracking/Score	Patient Status	<input type="text"/>
Referral	MELD or PELD	<input type="text"/> <span style="color: red;">E</span>
+ Evaluation	Calculated Score	<input type="text"/> <span style="color: red;">E</span>
+ Listing	Match Score	<input type="text"/> [redacted] <span style="color: red;">E</span>
+ Pre-Transplant	Status 1	<input type="text"/> <span style="color: red;">E</span>
+ Transplant	Exception points included in this score	<input type="text"/> <span style="color: red;">E</span>
+ Post-Transplant	Reasons for Exceptions	<input type="text"/> <span style="color: red;">E</span>
Immunosuppression	Specify Other	<input type="text"/> <span style="color: blue;">M</span> <span style="color: red;">E</span>
Outside Admissions		
Ext		

Perform Data Entry: Clinical Information



Data Entry Add Patient

Choose Study: Liver Registry Change Patient Switch to 'View' mode

Name: [redacted] Alias: [redacted] MRN: [redacted] i2b2 ID: [redacted] DOB: [redacted]

Your form contains errors. [Click here to view](#)

### Liver Registry

Data Last Refreshed: 02/27/2011  
Patient Last Updated: 03/03/2011, by [redacted]

Patient Info Clinical Info Research

#### Clinical Information

Save

- Tracking/Score
- Referral
- Evaluation
  - Evaluation
  - Evaluation Comments
  - Vitals
- Listing
- Pre-Transplant
- Transplant
- Post-Transplant
- Immunosuppression
- Outside Admissions
- Exit

#### Evaluation Information

<a href="#">Add [Evaluation]</a>	<b>**New**</b>
Date of Evaluation	<input type="text"/>
Date of Team Discussion	<input type="text"/>
Outcome of Team Discussion	<input type="text"/>
If Deferred, reason for deferral	<input type="text"/>
Organs evaluated for	<input type="text"/>
Additional Organs Evaluated	<input type="text"/>
Primary Liver Disease at Evaluation	<input type="text"/>

Run Pre-defined Reports:

**i2B2 Workbench**  
Cincinnati Children's Research Foundation

Project: Liver QA/Test Environment

Welcome: [Redacted] (Logout)

Home | Find Patients | Chart Review | Data Entry | Analysis | Import/Export | Feedback

**Available Plugins**

Please choose a

- select--
- Chart Review
- Demographics Distribution Comparison
- Demographics Distribution
- Patient Listing
- Liver Reports

plugin...

**Analysis Plugin**

Specify Data | Plugin Help

Click on the button below which shows the name of the selected Liver report.

--select--

- Liver:Age at Transplant Report
- Liver:Billary Tract Report
- Liver:Current Wait List Report
- Liver:Donor Report
- Liver:Financial Tracking Report
- Liver:Graft Survival Report
- Liver:Immunosuppression Report
- Liver:Immunosuppression Standard Deviation Report
- Liver:Length of Stay Report
- Liver:Outcomes Report
- Liver:Patient Survival Report
- Liver:Pharmacy Report
- Liver:Population Management Report
- Liver:Pre Transplant Deaths Report
- Liver:PTLD Report
- Liver:Rejections Report
- Liver:Retransplant Report
- Liver:Transplant Geographics Report
- Liver:Vascular Complications Report
- Liver:Volume Report
- Liver:Wait Time Report

1) Choose a report

Run: Liver Reports | Reset

Previous Queries | Workplace

Liver Testing

**Example Report:** Liver Age at Transplant Report

**Analysis Plugin**

Specify Data | View Results | Plugin Help

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**BIRT Report Viewer**

Showing page 1 of 3

Go to page: [ ]

### Liver Age at Transplant Report

Last Run on 03/29/2011 15:16:41

**Age at Transplant (Last 25 Transplants)**

Measure	Calculation
Age at Transplant - Median	3 Years
Age at Transplant - Mean	5 Years
Age at Transplant - Minimum	0 Days
Age at Transplant - Maximum	21 Years
Number of Patients less than or equal to 1 year of age	9
Number of Patients greater than 1 year of age	16
Number of Patients greater than or equal to 18 years of age	1
Percentage of Patients less than or equal to 1 year of age	36.00%
Percentage of Patients greater than 1 year of age	64.00%
Percentage of Patients greater than or equal to 18 years of age	4.00%

**Age at Transplant (Patient Specific)**

Date of Transplant					
Last Name	First Name	MRN	DOB	Ethnicity	Gender
	ABO	Transplant Number	Age at Transplant		

More information can be found on the CCHMC i2b2 project site: <http://i2b2.cchmc.org>.