Illinois Trauma Registry Traumatic Injury Data System
Request for Information #22032010

The State of Illinois is requesting information about systems that could be used to implement a web based National Trauma Data Bank (NTDB) data compliant Trauma Registry

Users: IDPH Staff: 20
Hospitals: All in-state Illinois hospitals and Illinois Designated Trauma Centers

Project Requirements

Design and implement a trauma registry that provides for data entry, reporting and export of data. It shall consist of a system which includes patient data import/export capability utilizing industry standard HL7 as well as export utilizing a variety of formats. Overall, the functions required by EMS shall include:

- A repository of trauma data collected by trauma centers following current and future Illinois Administrative Code as applicable.
- Tracking and evaluation of care for trauma patients in Illinois hospitals and trauma centers for quality improvement analysis.
- The import of pre-hospital data elements National Emergency Medical Services Information System (NEMSIS) Version 2 format. The application shall provide for expansion to Version 3 and future NEMSIS releases.
- Data elements will be consistent with the National Trauma Data Bank (NTDB) standards. It will provide the ability to remain consistent with NTDB data dictionary updates as they occur.
- Ability to incorporate additional features, including data elements, from NTDB as they become available.
- Ability to download validated Illinois trauma records during the annual NTDB call for data.
- Allow hospitals to license, collect, and report to the American College of Surgeons (ACS) NTDB Trauma Quality Improvement Program (TQIP) data independent of any quality improvement program done at the state level.
- Allow NTDB formatted patient data to be imported into the IDPH trauma registry regardless of the hospitals software vendor. This will reduce or eliminate the need for duplicate data entry.
- Integration of data for trauma victims starting from the place of injury to the local hospital and into the trauma hospital. This would allow for the import of data in a
NEMSIS format during the Prehospital stage. Following import, the registry will create a unique identifier that will stay with the patient throughout the trauma system eliminating two registry identifiers for the same incident, even if the patient has been transferred from one hospital to another.

- Provide an alternate means of data collection for a subset of Trauma data configurable at the state level. This would be utilized by non-Trauma hospitals to meet the reporting requirements for Head, Spinal Cord and Violent injury patients. The unique identifier shall stay with the same record, even if the patient is transferred from a non-Trauma center to a Trauma center.

- Collect data utilizing International Classification of Diseases (ICD) 10 and subsequent ICD updates. Alternatively, the application could provide the ability to interface with software capable of assigning ICD codes. This must include Etiology codes, Nature of Injury codes, Procedure codes with location date, time and physician (number code) and Office Visit codes.

- Capable of calculating Injury Severity Score (ISS); Abbreviated Injury Severity Score (AIS); Trauma Score – Injury Severity Score (TRISS); Glasgow Coma Scale (GCS) and Revised Trauma Score (RTS) or inclusion of combined with the ability to interface with software capable of calculating ISS, AIS, TRISS, GCS and RTS. The ability to update these scoring models as needed shall also be included.

- Provide for ad-hoc reporting utilizing a data warehouse or reporting database accessible at the state as well as the hospital and administrative levels of the application. This mechanism of reporting shall include every single data field collected, and not merely a subset of the data. Further, there will be no limits placed on the reporting and export of data.

- A mechanism for calculating Trauma Fund Distribution percentages allocated to a given EMS region based on severity of injury, procedures performed and length of stay. Calculated percentages for distribution vary annually.

- Security within the application will limit available data to that which is appropriate for the user level and role, so that hospitals can only create reports against their data, but data analysis can be done at the statewide level.

- Application data collection must include validation or edits, so that only reasonable and realistic items can be entered. This validation shall ensure that values are consistent with other data entered for a given record, and that dates are in a logical sequence.

- To improve the quality of data entered, the application shall assist users in identifying data which contains values which are acceptable, but unlikely.
• The application shall be available 24/7/365.

• Application software shall be designed to support redundant servers and to providing for failover in the event of hardware or software failure.

• All data must be backed up at a minimum, nightly, to provide for the ability to restore data in the event of a hardware or software failure.

• The application shall provide for an individual to have access to between 1 and n # of facilities, and provide for different user roles and responsibilities.

• Customizable Performance Improvement Analysis fields for hospitals to create and monitor quality improvement measures. This shall include the ability to create rules (edits) for data elements or a list of selectable values used for quality improvement analysis. Primarily, this would provide for ad-hoc data elements specified by designated application administrators at both the state and hospital levels.

• Application support, including technical support in the implementation of the application, as well as user support and training in the use of the software. This shall include a minimum of two annual training sessions, one directed toward supporting the application at the state level, and another directed toward training users in the use of the software. The training shall be segmented, based on what features are available to the different audiences. Limited to what is appropriate for the various security roles, each training session shall include but not be limited to data entry, ad-hoc report generation, software configuration and issue resolution.

**Functional requirements**

• The technology must provide process/business automation support and reporting or business intelligence.

• Common elements of the infrastructure technology must include:
  
  o Support for and interfacing with multiple data feeds from disparate systems
  
  o Facilitate information exchange and decision making through business rules
  
  o Support management of daily business processes as well as incident management consistent with the goals of the application
  
  o Compliance with all applicable administrative rules, state and federal laws regarding the collection and storage of health information. This will
include but shall not be limited to: Health Insurance Portability and Accountability Act (HIPAA), Privacy Act of 1996, etc.

Anticipated Components

Trauma registry shall consist of the following components:

- An application which can be hosted on state owned servers, which include a variety of technologies, and consistent with industry and state standards
- Integration with IDPH Microsoft SharePoint © Portal
- Provide for role based security utilizing current Active Directory (AD) or Lightweight Directory Access Protocol (LDAP) security as appropriate
- A means of approving individuals for access to the application, and providing them with security roles as deemed appropriate by a system administrator
- Business warehouse and/or business intelligence tools

Response

Response to this Request for Information (RFI) is completely voluntary, and this RFI and its responses do not obligate the State in any way. Further, a response to this RFI does not provide any advantages to the respondent in potential future Request for Proposals (RFPs). Respondents are responsible for all costs associated with the preparation and submission of responses to this RFI. The State reserves the right to schedule in-person sessions to permit presentations of selected responses. Information received in response to this RFI may be used to publish a formal solicitation for proposals.

Please return your response to this RFI by 1:00 pm, CST, October 25, 2013. Your response must be sent to:

Illinois Department of Public Health
Jodee Guilliams – Procurement
535 W Jefferson, Ground floor
Springfield, IL 62701

Your response shall be labeled – Trauma Registry RFI

Please submit a copy on CD or USB in Microsoft Word or Text Format

The Department requests that responses to the RFI include the following information.

1. A high-level description of the product including a brief overview of all functional components and their capacities, its scalability to accommodate the specified number of users, and the responsibility of these users, its architectural and
nonfunctional frameworks and the number and names of states or other entities using the application.

2. A specific description of how the product would seamlessly import data from individual hospital patient records to the State of Illinois registry and what changes, if any, would be necessary to any existing system.

3. Descriptions of platforms and related applications which have been successfully interfaced with the defined product.

4. A description of the ongoing support and maintenance which can be expected to be provided as a supplement to the product.

5. A realistic breakdown of the necessary skill sets to both use and support the product.

If there are any questions, please feel free to contact Tina Estrop @ 217-785-4895 or email at Tina.Estrop@illinois.gov