**Data Quality Plan for Trauma Program**

10/7/2024

**Objective:**

To ensure that the trauma registry data is accurate, complete, and reliable, meeting the requirements of the American College of Surgeons (ACS) for trauma centers. This plan will ensure a continuous process for measuring, monitoring, identifying, and correcting data quality issues to maintain the fitness of the data for use in trauma care and research.

**Data Quality Goals**

The primary goals of this plan are to:

* Ensure data accuracy, completeness, and consistency in the trauma registry.
* Enable continuous improvement through regular data monitoring and validation.
* Support internal and external reporting requirements.
* Enhance the quality of trauma care through reliable data that informs decision-making.

**Key Areas of Focus:**

**a. Data Accuracy**

* Ensure that data correctly represents the trauma incidents and patient outcomes.
* Regularly review data for discrepancies, missing values, and outliers.

**b. Data Completeness**

* Ensure that all required fields are filled out according to the trauma registry guidelines.
* Check for missing or incomplete records.

**c. Data Consistency**

* Ensure data is entered uniformly following established standards and coding conventions.

**d. Data Timeliness**

* Ensure at least 80% data entry is completed within 60 days of discharge

**e. Data Validity**

* Ensure that data is valid through validation processes, both internally and externally.

**Roles and Responsibilities:**

The Trauma Program Manager is responsible for overseeing the implementation and compliance with the data quality plan, as well as review of quarterly data quality reports and identifying areas for improvement.

The lead trauma registrar plays a crucial role in ensuring the accuracy, completeness, and quality of the data entered into the trauma registry. They act as the gatekeeper of trauma data, overseeing its integrity and compliance with both internal and external standards.

Each Trauma Registrar is responsible for accurate and timely data entry into the trauma registry, perform monthly internal audits and ensure compliance with data quality standards.

**Required education:**

All staff members who have a registry role in data abstraction and entry, injury coding, ISS calculation, data reporting, or data validation for the trauma registry must fulfill all of the following requirements:

• Participate in and pass the AAAM’s Abbreviated Injury Scale (AIS) course

• Participate in an approved trauma registry course

• Participate in an ICD-10 course or an ICD-10 refresher course every five years

At least one registrar will be a current Certified Abbreviated Injury Scale Specialist (CAISS).

**Data Quality Review Process:**

**Internal validation:**

The lead trauma registrar will conduct quarterly reviews of the trauma registry data to identify data quality issues, focusing on missing data, outliers, and inconsistent entries. The reviews are intended to Identify patterns of errors and recommend corrective actions for all registry personnel.

The Trauma Registry staff will conduct monthly audits through an inter-rater reliability process to ensure ongoing compliance with data entry standards and identify emerging issues. A random sample of records will be reviewed for accuracy and completeness.

Each case will be subject to internal validation checks using built-in validation tools within the trauma registry software.

**External validation:**

External data validation is essential for ensuring the integrity and reliability of the data collected by trauma centers. These validation processes help trauma centers maintain high-quality data that is crucial for accurate reporting, research, and targeted quality improvement initiatives.

The trauma center submits data to TQIP (Trauma Quality Improvement Program), which undergoes validation checks to ensure it meets predefined standards for accuracy and consistency. The TQIP data center validation summary report flags any discrepancies, missing data or outliers for review. The lead registrar is responsible for reviewing the report and sharing the findings with the trauma program leadership and performance improvement coordinator (PIC).

**Corrective Actions:**

Any discrepancies, missing data, or inconsistencies found during the quarterly or monthly reviews will be logged and tracked. Once errors are identified, the Trauma Registrar or designated staff member will correct the data. The lead trauma registrar, in coordination with the trauma program leadership, will perform a root cause analysis for recurring data issues to develop preventative measures.

**Performance Metrics:**

To ensure compliance with the data quality plan, the following metrics will be monitored:

* **Data Entry Timeliness:** Percentage of trauma records entered within 60 days of discharge
* **Error Rate:** Number of data errors or discrepancies per quarter.
* **Validation Success Rate:** Percentage of data validated successfully in internal and external audits.

This Data Quality Plan ensures a structured, continuous approach to maintaining high-quality trauma data, enhancing the integrity and utility of the trauma registry for clinical, operational, and research purposes.

**Disclaimer:** This resource is intended to supplement the American College of Surgeons (ACS) verification process and are not a substitute for official ACS documentation. Users are responsible for thoroughly reviewing and understanding the 2022 ACS Standards and confirming any interpretations with the ACS Committee on Trauma.

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