How can we use text analytics to reduce patient injuries?

**YOUR GOAL:** Improve patient care through better detection of adverse events.

Patient safety and well-being are top priorities in hospitals around the world. Still, mistakes and adverse events occur frequently. Traditional efforts to detect adverse events have focused on voluntary reporting and error tracking. But public health researchers have established that only 10 to 20 percent of errors are ever reported; and of those, 90 to 95 percent cause no harm to patients.

Manually reviewing records to assess injuries and identify events or activities that lead to injury is time consuming and staff-intensive. Those records are also prone to human subjectivity, inconsistency and errors – and only a small portion of records can be examined. Potential new knowledge of conditions causing injury or inappropriate treatments go undetected, and the opportunity to improve care and save more lives is lost.

**OUR APPROACH**

Injuries related to accidents or treatments received during hospitalization can cause deaths, prolong stays, extend treatments and increase health care costs. We approach the problem by providing software and services to help you:

- **Automate manual records review** to shorten the timespan between patient registration and adverse effects monitoring, and free medical professionals to focus on caring for the patient.
- **Ensure thorough evaluation of all patient records** using text analytics software to examine entire records collections consistently and accurately.
- **Reveal new medical insight**, as key information extracted from records is examined from different perspectives, allowing you to ask new questions and save linked factors as a clinical data store for other analysis and research activities.
- **Streamline activities and processes** using automated adverse event detection to alert the proper systems and people immediately through email, reports or messages.

SAS provides text analytics solutions that free medical staff to focus on providing quality care instead of spending their time manually searching for adverse event thresholds.
THE SAS® DIFFERENCE: Automated, comprehensive patient safety systems promote higher-quality care

SAS provides a comprehensive, systematic method to identify, examine and detect adverse events – improving diagnosis, treatment and resolution. With SAS, you get:

- **Access to all relevant sources of data.** SAS provides a thorough representation of the activities associated with patients by including electronic medical journals from one or more sources and other sources of data – lab results, databases and more.
- **Faster time to results.** Unlike extended search systems, SAS maintains a tight focus on the specific problem at hand to deliver quick, targeted results.
- **Solutions that evolve as you grow.** With modular capabilities, SAS applications are easy to extend over time, as your needs change.
- **Integrated results.** With SAS, platform-independent results can be embedded into your operations, new informational stores and reporting infrastructures – providing intelligence at the point of decision, and enabling detailed drill-down capabilities.

With SAS, automated notifications to care providers and operational systems can be customized to alert you if a specific threshold or trigger associated with an adverse event is reached. In reports and notifications, the location and associated activity history can be brought to the forefront. Authentication and access permissions to the system can be centrally managed.

**CASE STUDY: Lillebælt Hospital**

**Situation**

In the past, 1 percent of patient records in the Department of Orthopedic Surgery at Vejle Hospital, a division of Lillebælt Hospital, were checked by random sampling during record audits four times a year by a surgeon and a secretary. These audits were slow and resource-intensive, and they provided limited knowledge to those who had made the mistakes.

**Solution**

With a text analytics-based solution from SAS, the department has:

- Improved quality control by automatically analyzing the records of all hospitalized patients.
- Automated registration of codes that connect diagnosis and treatment based on analysis of the surgeon’s dictation.

**Result**

- With automated alerts, surgeons know where to focus their time.
- Medical staff members have the details needed to improve care and extend research.

**SAS FACTS**

- SAS has been in business since 1976 and today has customers at more than 55,000 sites worldwide.
- In 2011, and each year since being announced, SAS Text Analytics was named a “Trend-Setting Product” by KMWorld magazine.
- More than 600 hospitals are SAS customers.

Learn more about SAS software and services for health care: sas.com/industry/healthcare