A Roadmap for Adoption of Transfusion-Related Adverse Event Reporting using the National Healthcare Safety Network

Melissa Cumming MS1, Anthony Osinski MPH1, Katharina van Santen MSPH2, Kathryn Haass MPH, CPH, MT(AAB), BB(ASCP)3, Koo-Whang Chung MPH4

1Division of Epidemiology and Immunization, Massachusetts Department of Public Health; 2Surveillance Branch, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention
3Northrop Grumman Corporation; 4Office of Blood, Organ and Other Tissue Safety, Centers for Disease Control and Prevention

Background

The National Healthcare Safety Network (NHSN) is used by US healthcare facilities to report patient safety outcomes. Since 2010, the NHSN Hemovigilance Module (HM) has been available for voluntary reporting of transfusion-related adverse events. On June 1, 2014, Massachusetts Department of Public Health (MDPH) became the first state health department to require all blood banks utilize HM to report monthly adverse event data. We present a roadmap for how successful statewide implementation in Massachusetts (MA) can inform efforts elsewhere. Also, early hemovigilance data from MA blood banks can further demonstrate the utility and value of the HM.

Methods

Assessment/Engagement

- Engage/partner with regulatory counterparts
- Identify all blood banks and foster collaborative relationship
- Strengthen relationships with local hemovigilance champions
- Establish and obtain guidance from a technical advisory group (TAG)
- Survey blood banks to assess knowledge and perceptions

Decision/Pre-Implementation

- Obtain support from key stakeholders
- Mandate statewide reporting through NHSN with regulatory support
- Announce mandate well in advance to allow for adequate training, communication and anticipation of challenges

Enrollment

- Support and communicate with users to assist with compliance
- Respond to user enrollment issues promptly
- Engage facility administrators to assist with enrollment and compliance

Maintenance/Analysis

- Ongoing user support
- Early quality improvement efforts
- Regular communication with users
- Regular meetings of the TAG to obtain guidance for sharing and reporting of statewide aggregate data

- Develop benchmarks to inform transfusion safety initiatives

Results

60 of 69 facilities in MA reported complete Hemovigilance Module data for July 2014 – March 2015.

Table 1 – Total adverse reactions and rates per 10,000 units transfused. An overall reaction rate of 15.33 reactions per 10,000 units transfused is seen during the first three quarters in MA. Six transfusion transmitted infections were reported, five of which were Babesiosis (*FNHTR – Fatal non-hemolytic transfusion reaction; TACO – Transfusion-associated circulatory overload; TTI – Transfusion transmitted infection).

Conclusions

Key Lessons Learned:

- Engage and partner early with regulatory counterparts
- Establish and foster collaborative relationships with blood banks
- Regulatory deadlines promote implementation
- Utilize available support from CDC

The adoption of mandatory hemovigilance reporting will result in valuable data which can be used to improve patient safety and reduce adverse transfusion-related outcomes. In MA, blood banks are now able to compare their adverse event rate(s) to those of other similar facilities, and potential areas for improvement are being identified and investigated further.

More Information

Visit the NHSN website at www.cdc.gov/nhsn to learn more about the NHSN HM.
For more information about hemovigilance efforts in Massachusetts, contact:

Melissa Cumming
Melissa.cumming@state.ma.us

Or

Anthony Osinski
Anthony.osinski@state.ma.us