**Project ECHO-OB Hemorrhage Safety Bundle**

Location: Utah  
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Category: Cutting Edge Practice

**BACKGROUND**

This project began with the release of a request for applications from AMCHP for the Every Mother Initiative. The Every Mother Initiative was supported with funding from Merck for Mothers and was focused on helping states to move data from maternal mortality reviews to population-based action. Utah felt that having this funding and the structure of the Every Mother Initiative collaboration would be very helpful in developing and implementing a program to impact maternal mortality and morbidity. We applied for cohort two and were accepted.

In deciding on a translation activity, we compared published data on Utah maternal deaths from 1995-2002 to deaths between 2005 and 2012. The top five causes of maternal death in Utah were embolism, overdose/drug toxicity, hemorrhage, cardiac conditions and infection. The Every Mother Team evaluated evidence-based interventions for these top causes and ultimately focused on implementing the recommendations from the Obstetric Hemorrhage Safety Bundle from the National Partnership for Maternal Safety.

**PROGRAM OBJECTIVES**

The Project ECHO - Obstetric Hemorrhage Safety Bundle program sought to educate and encourage hospitals statewide to implement components of the evidence-based OB Hemorrhage Safety Bundle with the goal of reducing maternal mortality and morbidity in Utah.

**TARGET POPULATION SERVED**

The target population for this intervention were labor and delivery and postpartum unit clinical staff from Utah’s delivering hospitals. All interested hospital facilities were invited to attend. By targeting hospital practices for quality improvement, the ultimate goal was to affect Utah’s mothers by reducing maternal morbidity and mortality related to obstetric hemorrhage.

**PROGRAM ACTIVITIES**

The project began with an assessment of current hospital obstetric hemorrhage practices. All delivering hospitals in Utah were invited via email to complete the survey. All facilities that did not respond to the initial outreach were contacted by phone by Utah Department of Health (UDOH) staff. The initial survey concluded with an invitation to a kick off meeting to be held in Salt Lake City, with mileage and hotel reimbursement by the Utah Department of Health.

Twenty-seven of Utah’s 46 hospitals completed the initial assessment survey. The kick-off meeting was held in October 2015 with the goal of setting the foundation for why implementation of the OB Hemorrhage safety bundle was important. Local experts presented on Utah data, communication, the OB Hemorrhage Safety Bundle, post-traumatic stress, leadership, the four pillars of the bundle: mutual support, building consensus, project ECHO, and planning.

Meeting participants received a thumb drive with resource materials, such as the OB Hemorrhage tool-kits from the California Maternal Quality Care Collaborative, the Florida Perinatal Quality Collaborative, and ACOG District 2. Participants also received 14 learning sessions on each component of the Safety Bundle. For each of the components, a local expert in the field presented the evidence behind the practice and guidelines for best practice and resources.

Bi-weekly learning sessions were conducted via the University of Utah Project ECHO (Extension for Community Health-Care Outcomes), a system developed to treat chronic and complex disease in rural and underserved areas using technology. The ECHO system allows hospital staff to view lectures via an internet link and have interactive conversations among all participants. This interactivity allowed facilities to have open discussions about what was learned in that session and implementation strategies. This technology allowed for greater participation among Utah’s rural hospitals. For those who were unable to attend live, the
sessions were recorded and placed on a YouTube channel for future viewing.

A final in-person meeting was held, with mileage and hotel reimbursable by the Department, to provide hands-on training related to blood loss quantification and simulation exercises. All participants were given a hemorrhage simulation kit purchased from PRONTO International. CMEs were also offered for the kick off meeting and each of the learning sessions delivered through Project ECHO. Quarterly follow up calls are planned to track facility progress.

PROGRAM OUTCOMES

Evaluations conducted include feedback from the first in-person meeting, evaluations of the first six ECHO sessions, and a final evaluation of participants to help determine how the entire Project ECHO process influenced change in participating facilities. Among those hospitals who completed the final evaluation, 91.6% said that the ECHO sessions were very helpful, 94.1% said they were highly satisfied with the OB hemorrhage safety bundle collaboration project and 100% of participants said they would be willing to participate in multi-hospital collaborations like this in the future. Additional evaluation results are pending.

PROGRAM COST

Approximately $47,000 was spent over the course of the project and included the cost of two in-person meetings for participants (meals, mileage, and hotel), CME credits, use of the ECHO technology, and hemorrhage simulation bags for participating hospitals.

ASSETS & CHALLENGES

Assets

Expertise from members of the Maternal Mortality Review panel, with representation from multiple hospital systems, and other faculty from the University of Utah was a strength. The University of Utah spent a year implementing the hemorrhage bundle and their nurse educator helped lead discussions, shared resources, successes and failures. The University Hospital staff provided the final trainings on debriefing and simulation. Providing mileage reimbursement, hotel accommodations and meals enabled hospital staff to attend.

Challenges

Finding a time to hold ECHO sessions that clinical faculty, UDOH staff, and hospital participants could all participate in was a challenge. Another challenge was access to the sessions. Some hospital systems blocked staff from accessing YouTube so they were unable to view recordings from their work locations. It was difficult to keep hospital staff engaged throughout the process.

Overcoming Challenges

Continual feedback from participants was essential to keeping them engaged. Modifying the learning sessions to meet the needs of participants was helpful in maintaining participation.

FUTURE STEPS

For the next six months, quarterly check in calls will be conducted to track progress and allow facilities to support each other with implementation efforts. This process will be repeated again with the focus on maternal hypertension.

COLLABORATIONS & STRATEGIC PARTNERSHIPS

This project was successful because of the many partners who provided their expertise and time. A nurse educator from the University Hospital facilitated each learning session with a staff person from the UDOH. The University Of Utah College Of Nursing provided a Doctor of Nursing Practice student who developed the course outline, developed the content for the first four sessions and delivered one learning session. Utah's hospital systems allowed their staff to participate in project activities.

RESOURCES PROVIDED

Resources from the project include:

- Baseline hospital practice survey
- Course outline
- Video recordings of educational sessions and power point presentations
- Project evaluation survey

Key words: Maternal Mortality, Obstetric Hemorrhage, Safety Bundle, Quality Improvement

**For more information about this program please contact:**

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