



Postpartum Hemorrhage Preparedness Elements Vary Among Hospitals in New Jersey and Georgia

Debra Bingham, Benjamin Scheich, Renée Byfield, Barbara Wilson, and Brian T. Bateman

Correspondence

Debra Bingham, DrPH, RN, FAAN, Vice President of Nursing Research, Education, and Practice, Association of Women's Health, Obstetric and Neonatal Nurses, 1800 M Street, NW, Suite 740 South, Washington, DC 20036.

dbingham@awhonn.org

Keywords

hemorrhage preparedness
hemorrhage protocol
obstetric hemorrhage
quality improvement

ABSTRACT

Objective: To identify the presence or absence of 38 postpartum hemorrhage preparedness elements in hospitals in New Jersey and Georgia as a component of the Postpartum Hemorrhage Project of the Association of Women's Health, Obstetric and Neonatal Nurses.

Design: Quality improvement baseline assessment survey.

Setting: Hospitals ($N = 95$) in New Jersey and Georgia.

Participants: Key informants were clinicians who were members of their hospitals' obstetric teams and were recognized as knowledgeable about their hospitals' postpartum hemorrhage policies.

Methods: An electronic survey was sent by e-mail to each identified hospital's key informant.

Results: The mean number of elements present was 23.1 ($SD = 5.2$; range = 12–34). Volume of births, students, magnet status, and other hospital characteristics did not predict preparedness. None of the hospitals had all of the 38 preparedness elements available. Less than 50% of the hospitals had massive hemorrhage protocols, performed risk assessments and drills, or measured blood loss. For every 10% increase in the total percentage of African American women who gave birth, there was a decrease of one preparedness element.

Conclusion: Objective measures of preparedness are needed, because perceptions of preparedness were inconsistent with the number of preparedness elements reported.

JOGNN, 45, 227–238; 2016. <http://dx.doi.org/10.1016/j.jogn.2015.12.003>

Accepted October 2015

Debra Bingham, DrPH, RN, FAAN, is Vice President of Nursing Research, Education, and Practice, Association of Women's Health, Obstetric and Neonatal Nurses, Washington, DC.

Benjamin Scheich, MS, is Director of Data Analytics, Association of Women's Health, Obstetric and Neonatal Nurses, Washington, DC.

(Continued)

The authors report no conflict of interest or relevant financial relationships.



Of the approximately four million women who give birth each year in the United States, 2.9% (approximately 125,000) will suffer from postpartum hemorrhage (PPH; Bateman, Berman, Riley, Leffert, 2010; Callaghan, Kuklina, Berg, 2010). In addition, Black women suffer more fatalities related to PPH (68.3 per 100,000) than White women (21.0 per 100,000), despite the fact that Black women were not shown to have a higher prevalence of PPH (Tucker, Berg, Callaghan, & Hsia, 2007; Bryant, Mhyre, Leffert, Hoban, Yakooh, Bateman, 2012).

In the United States, PPH remains a leading cause of maternal morbidity, cardiac arrest, intensive care unit admissions, and death during childbirth (Bateman et al., 2010; Berg, Callaghan, Syverson, & Henderson, 2010; Kramer et al., 2013; Mhyre et al., 2014; Wanderer et al., 2013). The incidence of severe PPH has increased in the United States during the past few decades

(Bateman et al., 2010; Bateman, Mhyre, Callaghan, & Kuklina, 2012; Callaghan et al., 2010; Kramer et al., 2013), and several factors have likely contributed: increased maternal age at childbirth (Centers for Disease Control and Prevention, 2014), increased rates of placenta implantation abnormalities due to the rise in the number of cesarean births (Clark & Silver, 2011), increased rates of induction and augmentation of labor (Sheiner, Sarid, Levy, Seidman, & Hallak, 2005), and increased rates of giving birth to multiples (Hamilton et al., 2007). Importantly, severe maternal morbidity and mortality due to PPH are thought to be largely preventable (Berg et al., 2005; Della Torre et al., 2011; Geller et al., 2014; Lawton et al., 2014).

Failure to recognize the severity of the hemorrhage and delays in the timely provision of appropriate therapy have been linked to preventable morbidity and mortality associated with

PPH (California Department of Public Health, Maternal Child and Adolescent Health Division, 2011; New York State Department of Health, 2004, 2009). Researchers who investigated findings from state maternal mortality review boards suggest there is a need for clinicians to be better prepared to manage PPH (Bingham, Lyndon, Lagrew, & Main, 2011). In addition, Glance et al. (2014) found a nearly fivefold variation in adjusted complication rates between high- and low-performing hospitals; of all complications, hemorrhages had the greatest absolute difference. These researchers hypothesized that differences in clinical performance were the most likely explanation for the variation in complication rates (Glance et al., 2014).

Improvement projects to enhance team readiness for, recognition of, and response to PPH include the following PPH preparedness elements: (a) recommendations to improve how patients at risk for PPH are identified; (b) quantification of cumulative blood loss when a woman gives birth; (c) availability of the full range of medications and procedures needed to effectively treat PPH; (d) protocols that will ensure the provision of appropriate management for PPH; (e) rapid availability of blood products needed for volume resuscitation; and (f) the use of teams that practice and evaluate how they respond to a PPH emergency (Lyndon, Lagrew, Shields, Main, & Cape, 2015). These PPH preparedness elements are recommended to be available in every facility where women give birth (Main et al., 2015). Recently, several state and national initiatives have focused on developing these standard approaches and the associated infrastructure within labor and delivery units across the United States (Lagrew, 2014), and data have emerged that indicate the effectiveness of such system-based changes (Shields et al., 2011; Shields, Wiesner, Fulton, & Pelletreau, 2015). These system-level recommendations are consistent with what is known about human error and how to mitigate common types of human errors known to be made during a PPH event (Bingham, 2012; Reason, 1990). Reducing PPH-related mortality and morbidity also has the potential to reduce costs; one hospital system showed a 27% reduction in the total number of blood products transfused 10 months after implementing a comprehensive PPH improvement initiative (Shields et al., 2011).

Currently, few data are available to indicate the extent to which recommended elements of PPH preparedness are in place in U.S. hospitals.

Results of a recent survey of academic medical centers suggested that approximately one third of hospitals do not have PPH protocols (Kacmar, Mhyre, Scavone, Fuller, & Toledo, 2014). To address this gap, the two purposes of this assessment were (a) to identify the number of preparedness elements available at hospitals in the states of Georgia and New Jersey in the fall of 2013 and spring of 2014 before the launch of the comprehensive and high-resource, multihospital, quality improvement (QI) learning collaborative of the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) entitled the AWHONN Postpartum Hemorrhage Project (AWHONN, 2015) and (b) to analyze whether hospital characteristics such as volume of births, presence of students (nursing, midwifery, or medical), payer mix, or percentage of African American women who gave birth at each hospital were predictive of the number of preparedness elements available.

Methods

Design

Data were collected by surveying hospital-based key informants in hospitals in New Jersey and Georgia. Key informants who completed the baseline assessment received an electronic copy of AWHONN's obstetric hemorrhage monograph. Hospitals were required to complete the baseline assessment to be considered for participation in the AWHONN PPH Project.

Setting and Sample

State leaders and staff of AWHONN contacted hospital-based clinical leaders via e-mail and phone in Georgia and New Jersey to identify a key informant for each of the 136 hospitals that provided maternity services in these states. Only hospitals that had fully operating maternity services for the entire 2012 year were included in the sample. Participants who completed the baseline assessment were identified as key informants, defined as clinicians who were members of their hospitals' obstetric teams and were recognized as knowledgeable about their hospitals' PPH policies. Key informants at 95 hospitals completed the survey.

Procedures

The AWHONN staff developed an electronic survey to collect hospital PPH data and assist in the implementation of a PPH QI project. This survey was reviewed and approved by the PPH QI Expert Panel as part of its strategic and

Renée Byfield, MS, RN, FNP, C-EFM, is a clinical nurse program specialist, Association of Women's Health, Obstetric and Neonatal Nurses, Washington, DC.

Barbara Wilson, PhD, RNC-OB, is an associate professor and Associate Dean of Academic Programs, University of Utah College of Nursing, Salt Lake City, UT.

Brian T. Bateman, MD, MSc, is an associate professor of anesthesia, Department of Anesthesiology, Critical Care, and Pain Medicine, Massachusetts General Hospital and Harvard Medical School, Boston, MA.

Download English Version:

<https://daneshyari.com/en/article/2632577>

Download Persian Version:

<https://daneshyari.com/article/2632577>

[Daneshyari.com](https://daneshyari.com)