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Strategies for Improving Postpartum Hemorrhage Outcomes

Postpartum hemorrhage is one of the most common and serious complications of childbirth. It is characterized by rapid and significant blood loss, causing a dangerous drop in blood pressure that can result in organ failure or, in extreme cases, death. Occurring in 3% to 5% of all deliveries, PPH is responsible for 11.2% of maternal deaths in the United States. It also is the leading cause of severe maternal morbidity. Notably, 40% of such hemorrhages occur in patients without any risk factors.

Early detection and treatment of PPH are critical to ensure a full recovery. Fortunately, most cases are not life threatening if managed promptly. Incorporating tools into electronic health records and labor and delivery workflows can enhance providers' ability to effectively diagnose and treat PPH.

The American Hospital Association and Epic are partnering to raise awareness of EHR tools that can help providers detect and treat PPH, no matter what software platform they use. These tools can help save lives of new mothers.

Assess Patient Risk for Postpartum Hemorrhage

Hospitals can identify patients' risk of hemorrhage by embedding a hemorrhage risk assessment into their obstetric workflows (see Additional Resources below). According to clinicians, the PPH risk assessment should be done at admission, at the start of the second stage of labor, upon transfer to postpartum care and whenever the patient's condition changes. These assessments categorize patients into low-, medium- and high-risk categories, providing recommendations for medications and other supplies to prevent and treat hemorrhage within each risk category.

EHR Considerations:

- Embed the assessment in admission documentation alongside other admission workflows.
- Configure the EHR to automatically update the risk score throughout the admission.
- Show a notification in the patient chart or tracking board to indicate when the assessment is incomplete.
- Show PPH risk assessment scores on admission/delivery summaries, tracking boards and handoffs.
- Include written treatment instructions alongside the patient's risk score.
- When a patient is medium or high risk, configure the EHR to automatically recommend necessary supplies in an order set.

Be Prepared for Postpartum Hemorrhage

Clinicians should have access to essential digital tools for responding to PPH from a single, centralized location within the EHR. This hub should allow them to more quickly queue common hemorrhage-related orders, record vital signs and assessments, efficiently document medication administrations and IV placements, and access a quantitative blood loss calculator.

Improve Hemorrhage Detection and Response with a Quantitative Blood Loss Calculator

QBL calculators help clinicians know how much blood a patient has lost, allowing teams to identify and respond to hemorrhage sooner and ideally before a patient's vital signs deteriorate. Embedding a QBL calculator in the organization's EHR helps to avoid forcing clinicians to break their workflows or perform manual calculations during a high-stakes clinical episode.

A QBL calculator works by subtracting the dry weight of materials involved in the clinical episode from the total wet weight of the materials to determine the volume of blood loss. It's essential to measure the dry weight of all materials that might become blood soaked, including drapes, canisters and sponges.

EHR Considerations:

- Include an inventory of supplies and their weights in the EHR so clinicians can quickly input the type and number of supplies and allow the system to automatically calculate the dry weight.
- Include a row for substituted items in case a team runs out of a particular item.
- Show the QBL calculator in a prominent area of the patient chart for delivery workflows.
- Make sure that clinicians can easily access total blood loss information for patients.

Track Usage and Impact

Your organization's EHR reporting tools should be able to monitor both compliance and patient outcomes:

- Compliance measures may include C-section rates, frequency of QBL calculations and whether appropriate medications were ordered for patients at medium and high risk of PPH.
- Patient outcomes can be tracked through metrics such as PPH rates for vaginal and cesarean deliveries, as well as the percentage of deliveries requiring blood transfusions.

Reduce Risk of Postpartum Hemorrhage

Reducing the percentage of cesarean deliveries without medical indication can lower the risk of PPH. Incorporating C-section risk calculators into the EHR helps providers and patients more efficiently make informed decisions about whether to transition to a C-section.

With improved data reporting and advanced data analysis tools, predictive analytics models can help more accurately assess a patient's risk for PPH and identify effective interventions to reduce maternal morbidity and mortality.

Implementing the Toolbox

Hospitals and health systems working with Epic Systems can connect with their primary Epic contact to activate any or all of these toolbox components.

Hospitals and health systems working with other EHR providers can use this fact sheet to either identify existing similar tools in their own EHRs or outline a roadmap to build a version of this toolbox unique to their own EHR environment.

Additional Resources:

Association of Women's Health, Obstetric and Neonatal Nurses' Postpartum Risk Assessment Tool

California Maternal Quality Care Collaborative's Obstetric Risk Factor Assessment

ACOG Committee Opinion — Quantitative Blood Loss in Obstetric Hemorrhage

The clinican approaches described in this document are provided for informational purposes only and are not intended to replace individualized medical judgment. Implementation of these approaches does not guarantee specific patient outcomes. Clinicial decisions should always be based on the healthcare provider's professional assessment, the patient's unique circumstances, and the most current standards of care.