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Maternal Hemorrhage Safety Program Checklist

Use this checklist to determine if your Maternal Hemorrhage Safety Program is aligned with safe practice. Each of the Safety Elements are listed with recommended actions and updated evidence-based resources that may help you develop or enhance your plan. A variety of links to resources from professional organizations and other safety initiatives are indicated throughout this document. Additional resources are listed at the end of this checklist that may provide additional detail that addresses each safety element to support your plan.

Maternal Hemorrhage Safety Element	Actions	Met	Not Met
Use an evidence-based tool to determine maternal hemorrhage risk on admission **Resources:** • **ACOG Hemorrhage Risk Assessment Table District II (Prenatal and Antepartum):** https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-risk-assessment-prenatal-antepartum.pdf • **ACOG Hemorrhage Risk Assessment Table District II (Labor and Deliver, Admission, Intrapartum):** https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-risk-assessment-ld-admin-	• Assessing and discussing hemorrhage risk helps clinical teams identify higher-risk patients and be prepared. • Individual risk factors predict some occurrences of obstetric hemorrhage.[i] A unit process for routinely assessing risk of hemorrhage upon admission to antepartum or L&D units can identify individuals at risk to ensure a prepared health care team. • Risk assessment may include presence of clinical conditions that increase risk of hemorrhage, or patient preferences that may limit the use of blood and blood products in the event of a hemorrhage. • A unit process for risk assessment can include assessing for conditions that are associated with obstetric hemorrhage and may describe the unit process for different levels of risk. • Criteria for type and hold, type and screen, and type and cross on admission and as intrapartum status changes • Criteria for intravenous access on admission and as intrapartum status changes • Criteria for having specialized equipment (e.g., rapid volume infusers, cell saver technology) readily accessible		

Maternal Hemorrhage Safety Element	Actions	Met	Not Met
intrapartum.pdf			

Use written evidence-based procedures for stage-based management of patients who experience maternal hemorrhage.
 	
Resources:
• **ACOG Hemorrhage Stages (1-4) District II Checklists: https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-hemorrhage-checklist.pdf**
	• These written procedures cover a variety of scenarios and should be developed by a multidisciplinary team that includes representation from obstetrics, anesthesiology, nursing, laboratory, and blood bank.
	• The routine use of facility-wide approaches for the active management of maternal hemorrhage can reduce variability among providers and nursing staff, potentially minimizing the risk of error. However, achieving standardized agreement on the specifics of an approach may be challenging because of the available evidence about active management, differing values and opinions about the use of active versus expectant management, and patient preferences.
	• Consider using strategies to gain consensus on a standard approach that yields the most standardization while still allowing flexibility for patient preferences and/or where evidence is insufficient and variability in approach in unlikely to increase risk of errors. Options and examples for a standardized approach include the following:
	  ○ *Evidence of benefit and harms*: Studies show that the active management of the third stage reduces maternal blood loss and rates of postpartum hemorrhage. However, this approach is also associated with increased maternal diastolic blood pressure, pain, use of analgesia, and number of women returning to hospital due to bleeding, and nausea (specific to ergot-derived uterotonics).[ii]
	  ○ *Components of active management of third stage*: The components typically include:[iii]
	    ▪ use of a uterotonic drug soon after birth (oxytocin or ergot-derived agents),		

Applicable to the following Accreditation Programs: (X) Hospital (X) Critical Access Hospital ( ) Behavioral Health
(X) Ambulatory Care ( ) Office Based Surgery ( ) Disease Specific Certification ( ) Staffing Certification

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	▪ controlled cord traction, and ▪ performance of uterine massage after the delivery of the placenta. Some consider early cord clamping to also be part of active management, but available evidence does not suggest it reduces rates of hemorrhage, and delayed cord clamping may provide health benefits to the neonate.[iv] • *Evidence about the individual components of active management:* ○ Evidence suggests that the uterotonic agent is the most important component of active management; oxytocin is typically recommended as it has the most favorable risk/benefit profile.[v] ○ Options for timing of uterotonic administration vary; it can be given upon delivery of the anterior shoulder, upon delivery of the entire baby, at the first sign of placental separation, or upon expulsion of the placenta. Evidence of timing is limited to studies using intravenous oxytocin; these studies suggest no differences between administration before or after placental expulsion.[vi] ○ Evidence suggests that controlled cord traction in vaginal deliveries slightly reduces postpartum hemorrhage, shortens the duration of the third stage, and reduces risk of manual placental removal but has no effect on severe hemorrhage, need for transfusion, or therapeutic uterotonics. Thus, providers and women may consider using if these outcomes are considered important.[vii] ▪ The evidence is insufficient regarding the		

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	effectiveness of uterine massage alone or in addition to uterotonics. Some recent guidelines have recommended against the prophylactic use of massage for women who have received prophylactic uterotonics because it may cause maternal discomfort, with little added benefit.[viii]		
Maintain in each obstetric unit a standardized, secured, dedicated hemorrhage supply kit. Ensure access of supplies in areas where patients with maternal hemorrhage risk would be emergently treated. **Resources:** **ACOG Hemorrhage Cart and Medication Kit District II Checklists:** **https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-recommended-instruments-checklist.pdf**	• Each kit must contain emergency hemorrhage supplies as determined by the organization, as well as the organization’s approved procedures for severe hemorrhage response. • Rapid access to pharmacologic therapy and surgical equipment necessary to respond quickly to a hemorrhage is facilitated using prepackaged carts, kits, and trays. • These carts, kits, and trays can be stocked and stored on postpartum unit and L&D units. Such carts and kits may include commonly administered uterotonic agents, intravenous-access materials and fluids, equipment for bedside vaginal examination and manual evacuation, task lighting, and equipment for surgical management.		
Deliver role-specific education about the organization’s hemorrhage procedure to all staff and providers who treat	• For the care team to function optimally in an emergency, everyone must know the procedures to follow in the event of a hemorrhage. • Training should ensure providers and staff are aware and proficient in		

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pregnant and postpartum patients. **Resources:** • **California Maternal Quality Care Collaborative (CMQCC) Introduction to OB Hemorrhage Toolkit** ○ **Slide set: https://www.cmqcc.org/sites/default/files/HEM_Slides_4.14.22_Webinar_Deck_Small.pptx** **CMQCC Orientation to OB Hemorrhage Webinar: https://www.youtube.com/watch?v=L16hH8CyX2Q**	the duties and tasks related to their position in the maternal hemorrhage response team to be optimally effective. • This education and training should be conducted at orientation, whenever changes to the processes or procedures occur, or every two years.		

Perform annual drills to determine system issues as part of on-going quality improvement efforts.
 	
Resources:
• **ACOG Practicing for Patients Postpartum Hemorrhage Manual https://safehealthcareforeverywoman.org/council/education-and-engagement-tools/practicing-for-**
	• Drills should include representation from each team identified in the organization's hemorrhage response procedure and include a debriefing session after the drill is completed.
	• Sample scenarios available through the AHRQ Safety Program for Perinatal Care and the CMQCC can be used to train teams on key perinatal safety elements related to obstetric hemorrhage. These scenarios reinforce teamwork and communication related to:
	  ○ situational awareness,
	  ○ early identification of hemorrhage through quantification of blood loss,
	  ○ use of cognitive aids, checklists, and protocols to focus clinical management,		

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patients/postpartum-hemorrhage/ • **AHRQ Post-Partum Hemorrhage Drill Scenario Resources:** https://www.ahrq.gov/hai/tools/perinatal-care/modules/situ/simulation-postpart-hemorrhage.html • **CMQCC Drill Scenarios: (Under Systems Readiness and Appendices)** https://www.cmqcc.org/resources-tool-kits/toolkits/ob-hemorrhage-toolkit	○ communication with rapid responders and other units of the hospital (e.g., lab, blood bank, OR), ○ communication with patient/family, and ○ use of briefings, huddles, and debriefings.		
Conduct reviews of hemorrhage cases to determine alignment with protocols and for any opportunities to improve practice. **Resources:** • **CMQCC Hemorrhage Rapid Debrief Tool:** https://www.cmqcc.org/content/ob-hemorrhage-toolkit-v30-appendix-cc-sample-hemorrhage-rapid-debrief-form	• Reviews should evaluate the effectiveness of care, treatment, and services provided by the hemorrhage response team. • Units can decide its approach to reviewing cases of maternal hemorrhage. This might include an existing medical peer review process or review by a perinatal safety or quality committee. • Data from reviews should be trended for common themes and opportunities for revising the organization's approach to treating maternal hemorrhage risk patients.		

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• **CMQCC Labor and Delivery Event Debrief Tool: https://www.cmqcc.org/content/ob-hemorrhage-toolkit-v30-appendix-dd-sample-labor-and-delivery-event-debrief-form** • **ACOG District II SMI Obstetric Team Debriefing Form: https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-debriefing-form.pdf**			
Educate patients on maternal hemorrhage risk. **Resources:** • **March of Dimes Post-Partum Hemorrhage Patient Education: https://www.marchofdimes.org/pregnancy/postpartum-hemorrhage.aspx** • **AWHONN POST-BIRTH Warning Signs Education Course Program information: https://awhonn.org/education/hospital-products/post-birth-warning-**	• An obstetric hemorrhage may occur before or after delivery, but more than 80% of cases occur postpartum which makes patient education vital to post-partum patients after discharge. At a minimum, hospitals should deliver education that helps patients recognize the signs and symptoms of postpartum hemorrhage that should prompt them to seek immediate care.		

Maternal Hemorrhage Safety Element	Actions	Met	Not Met
signs-education-program/			

Other resources:

- Agency for Healthcare Research and Quality (AHRQ) Labor and Deliver Unit Maternal Hemorrhage Toolkit: https://www.ahrq.gov/hai/tools/perinatal-care/modules/strategies/labor-delivery-unit/tool-obhemorrhage.html
- Alliance for Innovation on Maternal Health (Obstetric Hemorrhage Patient Safety Bundle): https://safehealthcareforeverywoman.org/aim/patient-safety-bundles/maternal-safety-bundles/obstetric-hemorrahage-patient-safety-bundle-2/
- Association of Women's Health, Obstetric and Neonatal Nurses Post-Partum Hemorrhage Resource Page: https://awhonn.org/postpartum-hemorrhage-pph/
- California Maternal Quality Care Toolkit (V3.0): https://www.cmqcc.org/resources-tool-kits/toolkits/ob-hemorrhage-toolkit
- Indiana State Maternal Hemorrhage Toolkit: https://www.in.gov/health/laboroflove/files/maternal-hemorrhage-tool-kit-august-2019.pdf
  Oklahoma Perinatal Quality Improvement Collaborative Obstetric Hemorrhage Resource Page: https://opqic.org/initiatives/emc/pphm/
- New Jersey Hospital Perinatal Quality Collaborative Maternal Safety Toolkit: http://www.njha.com/media/516755/NJ-AIM-Toolkit-NJHAFinal.pdf

References

[i] Audureau E, Deneux-Tharaux C, Lefevre P, et al. Practices for prevention, diagnosis and management of postpartum haemorrhage: impact of a regional multifaceted intervention. BJOG. 2009 Sep;116(10):1325-33. PMID: 19538416
[ii] Begley CM, Gyte GM, Devane D, et al. Active versus expectant management for women in the third stage of labour. Cochrane Database Syst Rev. 2011(11):CD007412. PMID: 22071837.
[iii] Oladapo OT, Okusanya BO, Abalos E. Intramuscular versus intravenous prophylactic oxytocin for the third stage of labour. Cochrane Database Syst Rev. 2012;2:CD009332. PMID: 22336865.
Westhoff G, Cotter AM, Tolosa JE. Prophylactic oxytocin for the third stage of labour to prevent postpartum haemorrhage. Cochrane Database Syst Rev. 2013;10:CD001808. PMID: 24173606.

Liabsuetrakul T, Choobun T, Peeyananjarassri K, et al. Prophylactic use of ergot alkaloids in the third stage of labour. Cochrane Database Syst Rev. 2007(2):CD005456. PMID: 17443592.
Burke C. Active versus expectant management of the third stage of labor and implementation of a protocol. J Perinat Neonatal Nurs. 2010 Jul-Sep;24(3):215-28; quiz 29-30. PMID: 20697238.
Tuncalp O, Souza JP, Gulmezoglu M, et al. New WHO recommendations on prevention and treatment of postpartum hemorrhage. Int J Gynaecol Obstet. 2013 Dec;123(3):254-6. PMID: 24054054.
[iv] Burke C. 2010. 215-28.
Tuncalp O, Souza JP, Gulmezoglu M, et al. 2013.:254-6.
McDonald SJ, Middleton P, Dowswell T, et al. Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes. Cochrane Database Syst Rev. 2013;7:CD004074. PMID: 23843134.
[v] Tuncalp O, Souza JP, Gulmezoglu M, et al. 2013.:254-6.
Du Y, Ye M, Zheng F. Active management of the third stage of labor with and without controlled cord traction: a systematic review and meta-analysis of randomized controlled trials. Acta Obstet Gynecol Scand. 2014 Jul;93(7):626-33. PMID: 24828584.
Hofmeyr GJ, Abdel-Aleem H, Abdel-Aleem MA. Uterine massage for preventing postpartum haemorrhage. Cochrane Database Syst Rev. 2013;7:CD006431. PMID: 23818022.
[vi] Soltani H, Hutchon DR, Poulose TA. Timing of prophylactic uterotonics for the third stage of labour after vaginal birth. Cochrane Database Syst Rev. 2010(8):CD006173. PMID: 20687079.
[vii] Du Y, Ye M, Zheng F. 2014. 626-33.
[viii] Tuncalp O, Souza JP, Gulmezoglu M, et al. 2013.:254-6.

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