Maternal Safety Bundles Webinar

Obstetric Hemorrhage: Sharing Protocols and Drills

April 13, 2016
How to Participate in the Session

• If you have called in by phone, you can “raise your hand” by selecting the hand icon.

• If you would like to call in by phone, select the “phone” icon to receive call in information.

• Select the “Chat Bubble” icon to show the comments box and type your comments and questions in the chat box throughout the session.
Objectives

- Review the hemorrhage safety bundle from the Council on Patient Safety in Women’s Health
- Discuss protocols and drills supporting the safety bundle components
A multi-stakeholder effort to implement the three Maternal Safety Bundles in all 80 NC maternity hospitals

- NC Quality Center
- NC Medical Society (including NC OB/GYN Society)
- NC Section ACOG
- PQCNC
- CCNC Pregnancy Medical Home
- NC Medicaid
- Blue Cross/Blue Shield
- AWHONN
- American College of Nurse Midwives, NC branch
- DPH, Women’s Health Branch
- NC Perinatal Association
- NC Academy of Family Physicians

www.ncsafemoms.org
The Bundle Template

Readiness
Recognition and Prevention
Response
Reporting/Systems Learning

Readiness (Every Unit)

• Blood Bank (Massive Transfusion Protocol)
• Cart & Medication Kit
• Hemorrhage team with education & drills for all stakeholders
Share your massive transfusion protocol

What do you do if…

• Patient is currently bleeding and at risk of uncontrollable bleeding?
• There’s an immediate need for transfusion and type and cross match are not yet available?
• You anticipate ongoing massive blood needs?
Readiness: Cart and Medication Kit

• What’s in your hemorrhage cart?

• What’s in your medication kit?
Readiness: Hemorrhage Response Team

Who is on your hemorrhage response team?
Readiness: Drills and Simulation

• When and how do you conduct hemorrhage drills?

• Who participates?
Readiness: Drills and Simulation

Were you a part of the NoCVA Perinatal Safety Collaborative?

YES

NO
Recognition and Prevention (Every Patient)

• Risk assessment
• Universal active management of 3rd stage of labor
Recognition and Prevention – Risk Assessment

- Prenatal
- Antepartum

Do you have risk assessments in place at these points?
Recognition and Prevention – Risk Assessment

**Medium Risk**
- Prior cesarean, uterine surgery, or multiple laparotomies
- Multiple gestation
- >4 prior births
- Prior obstetric hemorrhage
- Large myomas
- EFW >4000 g
- Obesity (BMI >40)
- Hematocrit <30% & other risk

**Type & SCREEN, review protocol**

**High Risk**
- Placenta previa/low lying
- Suspected accreta/percreta
- Platelet count <70,000
- Active bleeding
- Known coagulopathy
- 2 or more medium risk factors

**Type & CROSS, review protocol**
## Recognition and Prevention – Intrapartum

<table>
<thead>
<tr>
<th>Medium Risk</th>
<th>High Risk</th>
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<tbody>
<tr>
<td>Chorioamnionitis</td>
<td>New active bleeding</td>
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<tr>
<td>Prolonged oxytocin</td>
<td>2 or more medium (admission &amp;/or intrapartum) risk factors</td>
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<tr>
<td>&gt;24 hours</td>
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<tr>
<td>Prolonged 2nd stage</td>
<td></td>
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<td>Magnesium sulfate</td>
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Type & SCREEN, review protocol

Type & CROSS, review protocol
Recognition and Prevention: Placenta Accreta Management

For one or more prior cesareans, placental location should be documented prior to scheduled delivery.

Patients at high risk for placenta accreta should:

• Obtain proper imaging to evaluate risk prior to delivery, and
• Be transferred to appropriate level of care for delivery if accreta is suspected
Recognition and Prevention: Universal Active Management of 3rd Stage of Labor

- How do you do this at your hospital?
Response (Every Hemorrhage)

- Checklist
- Support for patients/families/staff for all significant hemorrhages
Response: Checklist

Do you have a hemorrhage checklist?

YES

NO
Response: Checklist

- Call for assistance
- Response team to the bedside (1o Team) Delivering attending MD/CNM, Primary RN Anesthesiologist
- Huddle: appoint leader, recorder/time keeper, nursing roles
- Identify hemorrhage stage Document EBL and interventions
- Timekeeper will call out at 5 minute intervals
Response: Checklist Stage 1

Blood loss >500 mL vaginal OR blood loss >1000 mL cesarean WITH NORMAL VITAL SIGNS and LAB VALUES

- Record VS, O2 saturation every 5 minutes
- Record cumulative blood loss
- Insert Foley catheter
- IV access: at least 16 gauge if possible
- Increase intravenous fluid (crystalloid: estimated blood loss in 2:1 ratio without oxytocin)
- Fundal massage
- Determine and treat etiology (4 Ts - Tone, Trauma, Tissue, Thrombin)
- Blood bank: Type & crossmatch 2 units PRBCs
Response: Checklist Stage 2

- 2nd IV access (16 gauge if possible)
- STAT labs, with coags & fibrinogen
- Warming blanket
- For uterine atony Consider intrauterine balloon or surgical interventions
- Blood bank: *DO NOT wait for labs. Transfuse per clinical signs/symptoms.* –Notify of OB hemorrhage, bring 2 units PRBCs to bedside, thaw 2 units FFP
- Medications: Continue medications from Stage 1
- Consider moving patient to OR *(better exposure, potential D&C)*
- Mobilize additional team members as necessary

Continued bleeding EBL up to 1500 mL OR any patient requiring ≥2 uterotonics WITH NORMAL VITAL SIGNS and LAB VALUES
Response: Checklist Stage 3

- Outline management plan Serial re-evaluation Communicate with hemorrhage team
- Replacement RBC-FFP-Platelets in a 6:4:1 ratio (trigger Massive Transfer Protocol - MTP) If coagulopathic, add cryoprecipitate. Consider consultation for alternative agents
- If unclear, identify etiology for bleeding Rule out lacerations (exam), coagulopathy (labs), occult bleeding (imaging)
- Hemostasis Initiate immediately, interventions based on etiology. If poor response, adopt additional measures

Continued bleeding with EBL >1500 mL OR >2 units PRBCs given OR Patient at risk for occult bleeding (post-cesarean, coagulopathy) OR Any patient with abnormal vital signs/labs/oliguria
For patients with cardiovascular collapse in setting of massive hemorrhage:

- Profound hypovolemic shock (blood loss not replaced)
- AFE (sudden CV collapse followed by heavy uterine bleeding from uterine relaxation and associated coagulopathy)

In these situations, immediate surgical intervention to ensure hemostasis (hysterectomy) is suggested. This should take place with simultaneous aggressive blood and factor replacement and medical interventions regardless of patient’s coagulation status. Expeditious hemostasis is the only step that will maximize survival rates for these critical patients.
Response: Checklist Post Hemorrhage Management

- Clinical considerations (including disposition of patient)
- Debrief
- Document after team debrief
- Discuss with patient/family members
Reporting/System Learning (Every Unit)

- Establish a culture of huddles for high-risk patients and post-event debriefs to identify successes and opportunities
- Multidisciplinary review of all significant hemorrhages
- Monitor outcomes and process metrics
Reporting/System Learning

- Do you debrief cases of hemorrhage? When? How?
- Do you conduct a multidisciplinary review of cases? All cases?
Reporting/Learning

- Do you review, with a multidisciplinary team on a regular basis, time to treatment data to seek system level opportunities to improve care?

- What have you learned through review of cases?
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<th>Date</th>
<th>Event</th>
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<tr>
<td>June 27, 2016</td>
<td>Webinar: Maternal Safety Bundle: Venous Thromboembolism 12:00 - 1:00 PM</td>
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<tr>
<td>August 10, 2016</td>
<td>Webinar: Sharing VTE Protocols and Drills 2:00 – 3:00</td>
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