Safety Action Series

Severe Maternal Morbidity
Identifying Cases, Conducting Reviews, and Improving Outcomes
Speakers

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The Joint Commission

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Chair, Department of Obstetrics and Gynecology
Associate Dean for Faculty Development
Cedars-Sinai Medical Center
Disclosures

- Lisa Buczkowski, RN, MS, CPPS has no real or perceived conflicts of interest to disclose.

- Sarah Kilpatrick, MD, PhD, FACOG has no real or perceived conflicts of interest to disclose.
Objectives

- Review the updates to the Severe Maternal Morbidity Review Forms.
- Discuss the benefits of using case reviews and root cause analysis to make improvements at an institutional level.
- Explain the process of self-reporting Severe Maternal Morbidity (SMM) events to The Joint Commission.
- Provide tips for identifying cases to report and share hypothetical examples of SMM reviews.
- Describe the importance of reporting and reviewing cases of SMM to improve outcomes in your institution.
SEVERE MATERNAL MORBIDITY: WHY AND HOW TO REVIEW
SMM Review: Why Bother?

• SMM is also rising in US
• Not enough deaths to review
• Reduce maternal mortality and morbidity
• Look for opportunities to improve care
• Look for patterns
• Develop interventions to improve care
Severe Maternal Morbidity Among Delivery and Postpartum Hospitalizations in the United States

William M. Callaghan, MD, MPH, Andreea A. Creanga, MD, PhD, and Elena V. Kuklina, MD, PhD

Population-based surveillance

Callaghan et al. Obstet Gynecol 2012;120:1029-36
Facility-Based Identification of Women With Severe Maternal Morbidity

It Is Time to Start

William M. Callaghan, MD, MPH, William A. Grobman, MD, MBA, Sarah J. Kilpatrick, MD, PhD, Elliott K. Main, MD, and Mary D’Alton, MD

Facility surveillance AND REVIEW:

- Transfusion ≥4 units
- ICU admission
Defining Severe Maternal Morbidity

- Has been difficult
- Know it when you see it...
- Recent OCC ACOG:

“..SMM can be thought of as unintended outcomes of the process of labor and delivery that result in significant short-term or long-term consequences to a woman’s health.”

Severe Maternal Morbidity: Screening and Review

ABSTRACT: This document builds upon recommendations from peer organizations and outlines a process for identifying maternal cases that should be reviewed. Severe maternal morbidity is associated with a high rate of preventability, similar to that of maternal mortality. It also can be considered a near miss for maternal mortality because without identification and treatment, in some cases, these conditions would lead to maternal death. Identifying severe morbidity is, therefore, important for preventing such injuries that lead to mortality and for highlighting opportunities to avoid repeat injuries. The two-step screen and review process described in this document is intended to efficiently detect severe maternal morbidity in women and to ensure that each case undergoes a review to determine whether there were opportunities for improvement in care. Like cases of maternal mortality, cases of severe maternal morbidity merit quality review. In the absence of consensus on a comprehensive list of conditions that represent severe maternal morbidity, institutions and systems should either adopt an existing screening criteria or create their own list of outcomes that merit review.
Main et al. AJOG 2016:

• Developed Clinical “Gold Standard” Guidelines for severe morbidity
  – Expert panel
  – Arranged by morbidity type
  – Gives examples of yes vs no SMM
  – Recognizes that not all screen positive cases will be true positives
## Gold Standard Guidelines For Severe Maternal Morbidity
### Using Example Driven Definitions

<table>
<thead>
<tr>
<th>Severe Maternal Morbidity</th>
<th>NOT Severe Morbidity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEMORRHAGE</strong></td>
<td></td>
</tr>
<tr>
<td>OB hemorrhage with $\geq 4$ U of RBCs transfused</td>
<td>OB hemorrhage with 2-3 U of RBCs transfused ALONE</td>
</tr>
<tr>
<td>OB hemorrhage with 2 U of RBCs and 2 U FFP transfused (without other procedures or complications) IF not judged to be &quot;over-exuberant&quot; transfusion</td>
<td>OB hemorrhage with 2 U of RBCs and 2 U FFP transfused AND judged to be &quot;over-exuberant&quot;</td>
</tr>
<tr>
<td>OB hemorrhage with &lt;4 units of blood products transfused and pulmonary congestion requiring $&gt; 1$ dose of Lasix</td>
<td>OB hemorrhage with &lt;4 units of blood products transfused and pulmonary edema requiring only 1 dose of Lasix</td>
</tr>
<tr>
<td>OB hemorrhage, return to OR for major procedure (excludes D&amp;C)</td>
<td></td>
</tr>
</tbody>
</table>

*Main, et al. AJOG 2016;214:643*

<table>
<thead>
<tr>
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<tr>
<td><strong>HEMORRHAGE</strong></td>
<td></td>
</tr>
<tr>
<td>Any emergency/unplanned peripartum hysterectomy, regardless of units transfused (includes all placenta accretas)</td>
<td>Planned peripartum hysterectomy for cancer/neoplasia</td>
</tr>
<tr>
<td>OB hemorrhage with uterine artery embolization, regardless of units transfused</td>
<td></td>
</tr>
<tr>
<td>OB hemorrhage with uterine balloon or Uterine Compression suture placed and 2-3 units of blood products transfused</td>
<td>OB hemorrhage with uterine balloon or Uterine compression suture placed and ≤1 units of blood products transfused</td>
</tr>
<tr>
<td>OB hemorrhage admitted to ICU for invasive monitoring or treatment</td>
<td>OB hemorrhage admitted to ICU for observation only without further treatment</td>
</tr>
</tbody>
</table>

Main, et al. AJOG 2016;214:643
Prevention or Opportunity to Alter Outcome

• Prevention morbidity: harder concept
  – Reduce eclampsia, DIC, LOS, renal failure, HELLP, stroke etc.

• Identifying opportunities to alter outcome
  – Strong, possible, none
Examples of Preventable Factors

• Provider
  – Failure to identify high risk
  – Incomplete/inappropriate management
  – Delayed diagnosis/treatment
  – No referral to tertiary

• System
  – Communication
  – Policies
  – Equipment
  – Medication

• Patient
SMM Review: Process

• Identify women with 4 or more units of blood, ICU admission
• Develop multidisciplinary committee
  – OB, MFM, RN, CNM, OB anesthesia, others
• Encourage debriefing after event
  – This is not the same as a review
• Primary data abstracted from record and presented to committee

Click the Severe Maternal Morbidity (SMM) Forms link in order to view and download.
Once clicked, it will open in Microsoft Word where data can be entered and saved on your local device.
SMM Review Process

- Can use SMM abstraction and assessment form
  - Abstraction:
    - Trained abstractor
    - Capture analyzable and descriptive data from medical record
    - Identify specific morbidity
    - Develop narrative of key aspects of morbidity
    - Focused questions re: care quality
      - Was hypertension recognized appropriately
      - Did woman appropriately receive magnesium
      - Was severe hypertension treated in a timely fashion
      - Was woman delivered in a timely fashion
Assessment: Done by Committee

• Identify whether opportunities to alter outcome (strong, possible, none)
• If yes enumerate and make specific recommendations
• Identify things that went well
• Conduct of committee
  – Just culture or other nonjudgmental approach
# SMM Short Review Form

## Abstraction
- SMM (recorded cause)
- SMM Date
- MR # or PATIENT ID
- Zip code of patient residence
- Abstraction Date
- Abstracter
- Birth Facility
- Hospital Level

## Patient Characteristics
- **Age**
- **Weight/Height**
- **Body mass index (BMI) at first prenatal visit**
- **Most recent BMI**

### Race
- **[Indicate race patient identifies]**
- **Choose an item.**

### Hispanic or Latina
- **No ☐ Yes ☐ Unknown ☐**

## Obstetric History
- **Gravida**
- **Para**
- **Term**
- **Premature**
- **Aborted**
- **Living**
- **# Previous fetal deaths**
- **# Previous infant deaths**

## Prenatal Care (PNC)
- **Yes ☐ Week PNC began**
- **Week unknown**
- **No ☐ Number of PNC visits**
- **Visit # unknown**
- **Yes ☐ No ☐**

### Discipline of Primary PNC Provider
- **[Choose one]**
- **Choose an item.**

### Planned/intended place of delivery
- **Choose an item.**

### Maternal Transport
- **[During peripartum period]**
- **No ☐ Choose an item.**
- **Yes ☐ From facility __________ to facility __________**
- **Unknown ☐**

### Delivery Information
- **Gestational age at time of morbidity __________**
- **Singleton ☐ Multiple ☐ [If multiple fill out additional delivery information per fetus]**

### Birth status
- **Choose an item.**

### Labor
- **Yes ☐ No ☐**

### Delivery type
- **Choose an item.**

### If C-Section
- **Type of C-section**
- **Choose an item.**
- **Primary reason for C-Section**
- **Choose an item.**

### Type of anesthesia
- **Choose an item.**

### Primary payer source
- **Choose an item.**
Case Narrative

Should include brief synopsis focused on the specific severe maternal morbidity that occurred that allow you to address the disease specific questions. It should be concise and pertinent to the particular SMM and include appropriate time line, evaluation, and be in chronologic format. Try to identify key moments that impacted care.

Case Analysis
### SMM Short Review Form

**Assessment**

<table>
<thead>
<tr>
<th>MR# or PATIENT ID</th>
<th>Date of event</th>
<th>Date of review</th>
<th>Reviewers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **Morbidity Category**
   - [ ] ICU Admission
   - [ ] Transfused 4 or more units
   - [ ] Other _____

2. **Sequence of Morbidity**
   
   Indicate the course of events:
   
   Clinical Cause of Morbidity: 1 & 2 reflect what initiated the final cause resulting in the severe morbidity. 3 is the final cause
   
   For example: 1. Preeclampsia 2. uncontrolled hypertension 3. intracranial bleed,
   
   So that 1, caused 2, that resulted in 3 – the severe morbidity

3. **Primary Cause of Morbidity**
   
   Choose an item.
   
   If trauma indicated as primary cause of morbidity: Choose an item.
   
   Other cause _________________
# SMM Short Review Form

**Resolution**

Refer to the SMM Outcome Factors Guide (pg. 7) of the SMM Review Long Form to determine contributing factors and opportunities

<table>
<thead>
<tr>
<th>Opportunity to Alter Outcome</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If opportunity to alter outcome present were opportunities largely: Circle all that apply

- Provider
- System
- Patient

List up to 3 things that could be done to alter outcome:

Identify practices that were done well and should be reinforced:

Recommendations for system, practice, provider improvements:
SMM Long Review Form

Process for Reviewing a Severe Maternal Morbidity (SMM) Event

What events should be reviewed?
- Pregnant, peripartum or postpartum women receiving 4 or more units of blood products
- Pregnant, peripartum or postpartum women who are admitted to an ICU as defined by the birth facility
- Other pregnant, peripartum or postpartum women who have an unexpected and severe medical event – at the discretion of the birth facility

Who should review the event?
Multidisciplinary standing committee at birth facility representing-
- Obstetrical providers (obstetricians, family physicians and/or advanced practice nurses)
- Anesthesia providers
- Obstetric care nurses
- Birth Facility quality improvement team
- Birth Facility administration
- Patient advocate
- Scribe
- If small birth facility, consider partnering with regional perinatal center or outsourcing the review
SMM Long Review Form

Process for Reviewing a Severe Maternal Morbidity (SMM) Event

When to review?
- As close as possible to the time of the event
- The more severe the event, the closer the timing to review
- If large birthing facility with a number of events, consider scheduling regular meeting to do reviews.

How to review?
- Reviews should be sanctioned by the facility and protected from discovery. Confidentiality statements should be gathered from each committee member
- Gather all pertinent patient medical records and facility records regarding this patient and event
- Engage a trained reviewer/abstractor to complete the Abstraction section of the SMM Review Form, including a pertinent synopsis of the event and objective information found in the records
- Primary review is then presented to the review committee
- Multidisciplinary Reviews follow a standard format (i.e. Assessment section of SMM Review Form)
- Multidisciplinary Review conclude with recommendations
SMM Long Review Form

Instructions for SMM Abstraction

Recommendation is to review all those transfused 4 or more units or admission to ICU, but any birth facility may choose to review additional cases

• Identify the main event associated with the SMM
• Utilize the appropriate disease specific questions to create a pertinent time line and guide the review and abstraction of medical record information.
• If the answer to any of the following disease specific questions is no, attempt to identify why and record an explanation. These explanations should assess potential system, provider and patient issues.
• Fill out the objective data
SMM Long Review Form

Disease specific questions to guide SMM Review Process

Hemorrhage
1. Was the hemorrhage recognized in a timely fashion?
2. Were signs of hypovolemia recognized in a timely fashion?
3. Were transfusions administered in a timely fashion?
4. Were appropriate interventions (e.g. medications, balloons, sutures, etc.) used?
5. Were modifiable risk factors (e.g., Pitocin, induction, chorioamnionitis, delay in delivery) managed appropriately?
6. Was sufficient assistance (e.g. additional doctors, nurses, or others) requested and received?

Hypertensive disease
1. Was hypertension recognized appropriately?
2. Did the woman appropriately receive magnesium SO4?
3. Was severe hypertension treated in a timely fashion?
4. Was the woman delivered at the appropriate time relative to her hypertensive disease?
5. Were any complications related to hypertensive disease managed appropriately?
# SMM Long Review Form

## SMM Outcome Factors Guide

**Purpose:** To assist in determining opportunities to alter outcomes

<table>
<thead>
<tr>
<th>SYSTEM &amp; PROVIDER FACTORS</th>
<th>How did these factors contribute to the SMM?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suboptimal Outcome</td>
</tr>
<tr>
<td><strong>Point of Entry to Healthcare</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Diagnosis</strong></td>
<td></td>
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<tr>
<td><strong>Referral to Higher Level Care</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Management Hierarchy:</strong> (i.e. RN to MD, Resident to Attending)</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Team Communication</strong></td>
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<tr>
<td><strong>Policies/Procedures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Documentation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equipment/Environmental Factors</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Discharge</strong></td>
<td></td>
</tr>
</tbody>
</table>
## SMM Outcome Factors Guide

**Purpose:** To assist in determining opportunities to alter outcomes

<table>
<thead>
<tr>
<th>Patient Factors</th>
<th>Suboptimal Outcome</th>
<th>Delayed Response</th>
<th>N/A</th>
<th>Other, list specifics details here</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-pregnancy: Underlying significant medical or physical conditions</strong></td>
<td></td>
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<tr>
<td><strong>Previous significant obstetric conditions</strong></td>
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<tr>
<td><strong>Non-obstetric medical complications that occurred during pregnancy</strong></td>
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<tr>
<td><strong>Complications due to conditions of pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Psychiatric/Behavioral health</strong></td>
<td>Alcohol ☐️ Tobacco ☐️ Illicit Drugs ☐️ Psychiatric Disorder ☐️ Other ☐️ [if other, list specific details]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Significant stressors</strong></td>
<td>Domestic Violence ☐️ Lack of food access ☐️ Lack of housing ☐️ Other ☐️ [if other, list specific details]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Barriers to seeking healthcare or healthcare access</strong></td>
<td>Refusal ☐️ Cultural Beliefs ☐️ Lack of health insurance ☐️ Lack of transportation ☐️ Other ☐️</td>
<td></td>
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</tr>
</tbody>
</table>

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**SMM Long Review Form**
Example 1

- 43 YO with known previa, presumed accreta
  - Presents at 38 wks with hemorrhage
  - To OR cesarean hysterectomy performed
    - Becomes hypotensive, tachycardic, Develops DIC
    - Difficulty finding extra surgical help
  - EBL 4 liters, transfused 8 PRBCs, 6 FFP
  - To SICU postop intubated
  - Discharge home on POD 4
**Example 1 SMM Review Form**

<table>
<thead>
<tr>
<th>ABSTRACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Screened Positive by]</td>
</tr>
<tr>
<td>ICDDx Code ☐</td>
</tr>
<tr>
<td>ICD Px Code X</td>
</tr>
<tr>
<td>≥4 Units RBC X</td>
</tr>
<tr>
<td>ICU Admit X</td>
</tr>
<tr>
<td>PPLOS ☐</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PATIENT CHARACTERISTICS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>OBSTETRIC HISTORY</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PRENATAL CARE (PNC)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>[Assisted Reproductive Technology (ART)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/No If Yes, what: IVF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Planned/intended place of delivery]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DELIVERY INFORMATION</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>[Gestational age at time of morbidity]</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[Birth status]</th>
</tr>
</thead>
<tbody>
<tr>
<td>live born</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[If C-Section]</th>
</tr>
</thead>
<tbody>
<tr>
<td>classical/hysterectomy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of C-Section</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>[Type of anesthesia]</th>
</tr>
</thead>
<tbody>
<tr>
<td>general</td>
</tr>
</tbody>
</table>
## Example 1 SMM Short Review Form

### Assessment

<table>
<thead>
<tr>
<th>MR# or PATIENT ID</th>
<th>Date of event:</th>
<th>Date of review:</th>
<th>Reviewers:</th>
</tr>
</thead>
</table>

### 1. Morbidity Category
- **x** ICU Admission
- **x** Transfused 4 or more units
- ☐ Other _____

### 2. Sequence of Morbidity

**Clinical Cause of Morbidity:** 1 & 2 reflect what initiated the final cause resulting in the severe morbidity. 3 is the final cause.

1. **Previa, accreta**
2. **Placental hemorrhage, hysterectomy**
3. **DIC**

For example: 1. Preeclampsia 2. uncontrolled hypertension 3 intracranial bleed, So that 1, caused 2, that resulted in 3 – the severe morbidity

### 3. Primary Cause of Morbidity

- Choose an item. **Placental hemorrhage**

If trauma indicated as primary cause of morbidity: Choose an item. Other cause ________________
Sample Categories Primary Cause Morbidity

- OB hemorrhage
- Placental hemorrhage
- Hypertension
- Infection/sepsis
- Pulmonary
- Cardiac
- Surgical complications
- Anesthesia complications
Example 1 SMM Short Review Form

Resolution
Refer to the SMM Outcome Factors Guide (pg. 7) of the SMM Review Long Form to determine contributing factors and opportunities.

Opportunity to Alter Outcome
☐ Strong ☒ Possible ☐ None

If opportunity to alter outcome present were opportunities largely: Circle all that apply

Provider  XX
System  XX
Patient

List up to 3 things that could be done to alter outcome:

- multidisciplinary planning for accreta before del
- Planned del before 38 wks
- Have better urgent way to reach gynecologic advanced surgical help

Identify practices that were done well and should be reinforced:

Emergent del handled well by on call team

Recommendations for system, practice, provider improvements:

Implement system for accreta delivery planning

Make contact list for 24 hr availability for surgical help
# Example 1 SMM Long Review Form

## SMM Outcome Factors Guide

**Purpose:** To assist in determining opportunities to alter outcomes

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## SMM Outcome Factors Guide

### Purpose:
To assist in determining opportunities to alter outcomes

### Patient Factors

<table>
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<tr>
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</tbody>
</table>
Example 2

- 43 YO with known previa, presumed accreta
  - Plan made to deliver her at 36 wks
  - Multidisciplinary team consulted and available
  - Scheduled CS
    - Plan of surgery made: midline skin, immed hyst
    - AM, primary surgeon, gyn onc, ob anesthesia and backup IR available
  - EBL 3 liters, transfused 6 PRBCs, 6 FFP
  - To SICU postop intubated
  - Discharge home on POD 4
## Example 2 SMM Short Review Form

### Assessment

<table>
<thead>
<tr>
<th>MR# or PATIENT ID</th>
<th>Date of event</th>
<th>Date of review</th>
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</thead>
</table>

### 1. Morbidity Category
- [x] ICU Admission
- [x] Transfused 4 or more units
- [ ] Other ____

### 2. Sequence of Morbidity

- **Clinical Cause of Morbidity**: 1 & 2 reflect what initiated the final cause resulting in the severe morbidity. 3 is the final cause.

  1. **Previa, accreta**
  2. **Placental hemorrhage, hysterectomy**
  3. **DIC**

### 3. Primary Cause of Morbidity

- Choose an item: **Placental hemorrhage**
- If trauma indicated as primary cause of morbidity: Choose an item.
- Other cause _________________
Example 2 SMM Short Review Form

**Resolution**
Refer to the SMM Outcome Factors Guide (pg. 7) of the SMM Review Long Form to determine contributing factors and opportunities

<table>
<thead>
<tr>
<th>Opportunity to Alter Outcome</th>
<th>☐ Strong</th>
<th>☐ Possible</th>
<th>☒ None</th>
</tr>
</thead>
</table>

If opportunity to alter outcome present were opportunities largely: Circle all that apply

- Provider
- System
- Patient

List up to 3 things that could be done to alter outcome:

Identify practices that were done well and should be reinforced:

**Excellent planning and management**

Recommendations for system, practice, provider improvements:
SMM Review Process Continued...

- Have institutional mechanisms to implement change
- Trend data internally potentially regionally, etc.
- Review timing
- Confidentiality
- Focus on systems
What We Have Learned at Cedars-Sinai

• Engagement of multidisciplinary group
• Systemize how to identify patients
• Problems with documentation surprising
• Choose 1-3 issues to address
  – Laps were not being weighed in OR
  – Not clear who was responsible for ordering antibiotics in OR
  – Need for an accreta team
• Need someone to keep/organize data
Final Thoughts

• Review forms are just a suggestion
• Important to capture analyzable data locally, regionally, etc.
• ICU admission, transfusion of 4 or more units are not meant to be quality measures
• Use additional criteria to identify possible SMM
• Debriefs are not the same as reviews
• Open to input regarding ease of use of forms
• Can we show that doing SMM reviews works?
THE JOINT COMMISSION
SENTINEL EVENT
DEFINITION
Definition of Sentinel Event

A sentinel event is a patient safety event (not primarily related to the natural course of the patient’s illness or underlying condition) that reaches a patient and results in any of the following:

- Death
- Permanent harm
- Severe temporary harm*
*Severe temporary harm* is critical, potentially life-threatening harm lasting for a limited time with no permanent residual, but requires transfer to a higher level of care/monitoring for a prolonged period of time, transfer to a higher level of care for a life-threatening condition, or additional major surgery, procedure, or treatment to resolve the condition.

SMM

• Severe maternal morbidity (not primarily related to the natural course of the patient’s illness or underlying condition) when it reaches a patient and results in any of the following: permanent harm or severe temporary harm.*
*Severe maternal morbidity* is defined, by the American College of Obstetricians and Gynecologists, the US Centers for Disease Control and Prevention, and the Society of Maternal and Fetal Medicine, as a patient safety event that occurs intrapartum through the immediate postpartum period (24 hrs), that requires the transfusion of 4 or more units of packed red blood cells and/or admission to the intensive care unit (ICU).

Facilities are strongly encouraged to review all cases of severe maternal morbidity for learning and improvement.

Admission to the ICU is defined as admission to a unit that provides 24-hour medical supervision and is able to provide mechanical ventilation or continuous vasoactive drug support.
Case 1

29 year old admitted at 34 weeks with eclampsia. C-section performed and 2 healthy babies delivered. Post C-section, uterine atony was diagnosed. Multiple interventions attempted: Pitocin, massage, Bakri balloon, exp lap with uterine artery ligation, progesterone x3, aggressive transfusion and fluid infusion. Total blood loss post C-section was 2200. Emergent hysterectomy performed. Patient received 6 units of blood and transferred to ICU for 24 hours. Patient transferred back to post-partum # POD #1 and patient discharged with babies on POD #3 in good condition.
Case 2

29 year old admitted at 34 weeks with eclampsia. C-section performed and 2 healthy babies delivered. Post C-section, uterine atony was diagnosed. Multiple interventions attempted: Pitocin, massage, Bakri balloon, exp lap with uterine artery ligation, progesterone x3, aggressive transfusion and fluid infusion.

Concern:
1. Mass transfusion protocol
2. Incorrect blood type, rate, administered
Examples of Preventable Factors

• Provider
  – Failure to identify high risk
  – Incomplete/inappropriate management
  – Delayed diagnosis/treatment
  – No referral to tertiary

• System
  – Communication
  – Policies
  – Equipment
  – Medication
Next Steps...

• If determined a sentinel event → conduct a comprehensive systematic analysis; for example, root cause analysis

• If determined not to meet Joint Commission definition of a sentinel event → conduct an analysis; data collection and analysis
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Q&A Session
Press *1 to ask a question

You will enter the question queue
Your line will be unmuted by the operator for your turn

A recording of this presentation will be made available on our website:
www.safehealthcareforeverywoman.org
Next Safety Action Series

Presentation of the Reduction of Peripartum Racial Disparities Patient Safety Bundle

November 4, 2016
12:30 pm Eastern

William Grobman, MD
Arthur Hale Curtis Professor
Vice Chair, Department of Obstetrics and Gynecology
Medical Director, NMG Women’s Health
Feinberg School of Medicine at Northwestern University

Elizabeth A. Howell, MD, MPP
Associate Dean for Academic Development
Professor, Obstetrics, Gynecology & Reproductive Science, Population Health & Policy, Psychiatry, Schizophrenia
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