

The Military Health System's

PARTNERSHIP FOR PATIENTS CAMPAIGN

SAFE CARE SAVES LIVES



Implementation Guide for Obstetrical Adverse Events

September 27, 2012





Contents

- 1. Introduction..... 3
- 2. Obstetrical Adverse Event Prevention Evidenced-Based Practices 3
 - 2.1 Background Information 3
 - 2.2 Evidence-Based Practice Guidelines..... 4
 - 2.3 MHS Performance Measures 5
- 3. References..... 6
- 4. Appendix 8
 - Attachment A: Perinatal Induction Bundle - Compliance Form 8
 - Attachment B: Perinatal Augmentation Bundle - Compliance Form..... 9





1. Introduction

This implementation guide was created to support the Partnership for Patients, a national initiative sponsored by the Department of Health and Human Services to reduce harm in health care facilities. Military Health System leadership has pledged its support to the PfP, and has made a commitment to specific, identified aims. Improving the quality and safety of health care in all Department of Defense facilities will only be possible with universal support at every level in the MHS.

This guide is one of 10 harm-specific guides designed to assist you as you implement identified evidence-based practices to improve patient care. Common to all guides are resources that support efforts to educate the health care team by providing MHS-selected EBPs and quality improvement strategies.

In addition, implementation strategies and tools relevant to all harm categories are included in a guide titled “Practical Applications for Process Improvement and Change Management.” This guide supports efforts to equip the health care team with rapid-cycle process improvement methods and engage the health care team through the use of change management strategies.

2. Obstetrical Adverse Event Prevention Evidenced-Based Practices

2.1 Background Information

Perinatal events have a lifelong impact for mothers, infants and their families. While most pregnancies result in the safe delivery of a healthy baby without harm to either the mother or child, obstetrical adverse events can threaten their safety during the perinatal period. The Institute of Medicine defines an adverse event as an injury resulting from medical care rather than the patient’s underlying medical condition.¹ In obstetrics, such events include harm to either the mother or infant such as maternal or neonatal death, birth trauma, uterine rupture, and third or fourth degree perineal lacerations.

Raising awareness of perinatal safety and establishing evidence-based care guidelines have helped make progress towards improving perinatal outcomes. The MHS is tracking the following perinatal harm issues: obstetrical trauma, third or fourth degree lacerations with or without instruments and pre-term delivery (greater than 37 weeks but prior to 39 weeks gestation without medical indications).

¹ Institute of Medicine (2000). To err is human: building a safer health system. Washington, DC: National Academy Press: 28.



Obstetrical Harm Burden of Illness

- Obstetrical adverse events currently occur in approximately nine percent of all U.S. deliveries.
- Elective delivery - vaginal or cesarean sections before 39 weeks gestation result in higher rates of adverse respiratory outcomes, mechanical ventilation, sepsis and hypoglycemia for newborns.
- A review of medical malpractice claims reveals that the use of oxytocin to stimulate labor is involved in more than 50 percent of the situations that result in birth trauma.
- Partnership for Patients literature estimates that 30 percent of obstetrical adverse events are preventable.

Sources:

1. National Healthcare Quality Report, Maternal and Child Health (2011).
2. Gregory, K.; et al. (2010). OB Hemorrhage Definitions and Triggers. CMQCC Hemorrhage Task Force.
3. Tita, A.T.; et al., (2009). Timing of elective repeat cesarean delivery at term and neonatal outcomes. N Engl J Med. 8; 360(2):111-20.
4. Cherouny PH, Federico FA, Haraden C, Leavitt Gullo S, Resar R. (2005) *Idealized Design of Perinatal Care*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement. <http://www.ihl.org/knowledge/Pages/IHIWhitePapers/IdealizedDesignofPerinatalCareWhitePaper.aspx> Accessed 8/15/12.

2.2 Evidence-Based Practice Guidelines

Many obstetrical adverse events can be prevented if reliable processes are used to evaluate and manage labor and delivery. To reduce the prevalence of obstetrical harm, the Institute for Healthcare Improvement created care bundles. A care bundle is a set of evidence-based interventions that, when used together, significantly improve patient outcomes. The MHS-endorsed perinatal bundles are based on the Institute of Healthcare Improvement safe medication practices for patients receiving oxytocin and documentation of care during induction and augmentation of labor.

IHI Perinatal Elective Induction Bundle

1. Gestational age greater than or equal to 39 weeks
2. Recognition and management of tachysystole
3. Pelvic exam/assessment prior to administration of oxytocin
4. Reassuring fetal status/normal fetal status (using NICHD 3-Tier System)

Source:

IHI. Perinatal Elective Induction Safety. <http://app.ihl.org/imap/tool/#Process=cd6ce129-b442-49d6-b0d4-d160ec1f9528> Accessed 8/15/12.



IHI Perinatal Labor Augmentation Bundle

1. Documentation of estimated fetal weight
2. Recognition and management of tachysystole
3. Pelvic assessment
4. Reassuring fetal status / Normal fetal status (using NICHD 3-Tier System)

Source:

IHI. Perinatal Labor Augmentation Safety.

<http://app.ihl.org/imap/tool/#Process=adf36aaa-63c5-4e2c-8c8d-e4ae8e9b29c4> Accessed 8/15/12.

2.3 MHS Performance Measures

In order to collect and interpret data that documents success in reducing the incidence of obstetrical adverse events, it is imperative that process and outcome measures be utilized. Data in the MHS is obtained through the review of medical records and coding of procedures and outcomes. Each MTF, clinic or care delivery setting should be focused on consistent and frequent review of their internal data in addition to the cumulative rates seen in their Service and MHS.

The MHS has selected the following process and outcome measures to track performance.

Description	Data Source	Metric
IHI Perinatal Induction Bundle Observation / check list for bundle compliance	Essentris	Process Measure
IHI Perinatal Augmentation Bundle Observation/ check list for bundle compliance	Essentris	Process Measure
PC-01 Elective Deliveries Numerator: Patients with elective deliveries to include ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for Medical induction of labor and/or Cesarean section while not in Active Labor or experiencing Spontaneous Rupture of Membranes Denominator: Patients delivering newborns with ≥ 37 and < 39 weeks of gestation completed without medical indications	TJC ORYX	Process Measure



Description	Data Source	Metric
<p>Obstetric Trauma Rate- Vaginal Delivery With Instrument</p> <p>Numerator: Discharges among cases meeting the inclusion and exclusion rules for the ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis field</p> <p>Denominator: All vaginal delivery discharges with any procedure code for instrument-assisted delivery</p>	MHS PHP AHRQ PSI 18	Outcome Measure
<p>Obstetric Trauma Rate- Vaginal Delivery Without Instrument</p> <p>Numerator: Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis field</p> <p>Denominator: All vaginal delivery discharge patients</p>	MHS PHP AHRQ PSI 19	Outcome Measure

The MHS' goal is to decrease or bring to zero the incidence of preventable adverse events in the perinatal population. The perinatal population is the largest population in both direct and purchased care delivered in the MHS. Our commitment to our families and their infants need to be the most consistent and evidence-driven. Collaborative support of these measures by all levels of care providers is imperative.

3. References

AHRQ National Clearinghouse. (n.d.). Retrieved from Assessment and care of the late preterm infant. Evidence based clinical practice guideline: <http://www.guidelines.gov/content.aspx?id=24066>

Unice Kennedy Shriver National Institute of Child Health and Human Development. (2008). *Report to the NACHHD Council*. Bethesda, MD: National Institutes of Health.

Gregory, K. (2010). *OB Hemorrhage Definition and Triggers*. Retrieved from CMQCC Hemorrhage Task Force: <http://cmqcc.org/resources/617>

Institute for Healthcare Improvement. (2011). *Improvement Maps: Perinatal Safety*. Retrieved from Institute for Healthcare Improvement: <http://app.ihl.org/imap/tool/#Process=adf36aaa-63c5-4e2c-8c8d-e4ae8e9b29c4>

National Healthcare Quality Report. (2011). Retrieved from Maternal and Child health: <http://www.ahrq.gov/qual/nhqr11/cap2b.htm>





The Military Health System's PARTNERSHIP FOR PATIENTS CAMPAIGN



Rosenstein, A. (2011). Managing disruptive behaviors in the health care setting: focus on obstetrics service. *American Journal Obstetrics and Gynecology*, 187-192.

The Joint Commission. (2011). *Perinatal Care Measure Specifications*. Retrieved from <http://manual.jointcommission.org/releases/TJC2010A/MIF0166.html>

Tita, A. (2009). Timing of elective repeat cesarean delivery at term and neonatal outcomes. *New England Journal of Medicine*, 111-120.

Wagner, B. (2012). Comprehensive Perinatal Safety Initiative to Reduce Adverse Obstetric Events. *Journal for Healthcare Quality*, 6-15.



4. Appendix

Attachment A: Perinatal Induction Bundle - Compliance Form

IHI's Oxytocin-Induction Bundle Compliance Data Collection Tool

Elements:

Gestational Age 39 weeks: Documented prior to initiation of oxytocin. Per ACOG definition in ACOG Practice Bulletin Number 107, August 2009 (Induction of Labor).

Team Definition _____

Normal Fetal Status: See NICHD September 2008 Tier Recommendations. Assessed and documented prior to initiation of oxytocin *and* during administration.

Team Definition _____

Pelvic Assessment: This element includes documentation of a complete pelvic assessment with cervical examination (dilation, effacement, station of the presenting part, cervical position and consistency; Bishop's Score), clinical pelvimetry (acceptable is "adequate pelvis") and an assessment of the fetal presentation.

Team Definition _____

Tachysystole: Recognized and management throughout the administration of oxytocin. NICHD September 2008 Definition: >5 contractions in

10 minutes, averaged over a 30-minute window. If present, it is recognized and treated.

Team Definition _____

Instructions: Review 5 charts each week where oxytocin was used to electively induce labor.

Numerator: Total number of charts that have **all four components** of the bundle in place and documented

Denominator: Total number of the sampled charts (5 charts)

Month _____ Week _____

Chart	Gestational Age	Normal Fetal Status	Pelvic Assessment	Tachysystole	Total
#1					
#2					
#3					
#4					
#5					
Example:	yes	yes	no	no	2/4=0%

Source: IHI Perinatal Induction Bundle Tool Compliance Form

<http://www.ihl.org/knowledge/Pages/Tools/ElectiveInductionBundleDataCollectionTool.aspx> Accessed 8/15/12.



Attachment B: Perinatal Augmentation Bundle - Compliance Form

**IHI's Oxytocin-Augmentation Bundle Compliance
Data Collection Tool**

Elements:

Estimated Fetal Weight (EFW): _____ (gms or SGA/AGA/LGA). Documented prior to initiation of oxytocin.

Team Definition _____

Normal Fetal Heart Rate Status: See NICHD September 2008 Tier Recommendations. Assessed and documented prior to initiation of oxytocin *and* during administration.

Team Definition _____

Pelvic Assessment: This element includes documentation of a complete pelvic assessment with cervical examination (dilation, effacement, station of the presenting part, cervical position and consistency); clinical pelvimetry (acceptable is "adequate pelvis") and an assessment of the fetal presentation.

Team Definition _____

Tachysystole: Recognized and management throughout the administration of oxytocin. NICHD September 2008 Definition: >5 contractions in

10 minutes, averaged over a 30-minute window. If present, it is recognized and treated.

Team Definition: _____

Instructions: Review 5 charts each week where oxytocin was used to augment labor.

Numerator: Total number of charts that have **all four components** of the bundle in place and documented

Denominator: Total number of charts reviewed (5 charts)

Month _____ Week _____

Chart	EFW	Normal Fetal Status	Pelvic Examination	Tachysystole	Total
#1					
#2					
#3					
#4					
#5					
Example:	yes	yes	yes	no	3/4=0%

Source: IHI Perinatal Augmentation Bundle Tool Compliance Form

<http://www.ihl.org/knowledge/Pages/Tools/AugmentationBundleDataCollectionTool.aspx> Accessed 7/10/12.

