Selected Best Practices and Suggestions for Improvement

PSI 18 and 19: Obstetric Trauma Rate – Vaginal Delivery With and Without Instrument

Why Focus on Obstetric Lacerations?

- This particular best practice form focuses on PSI 18 and PSI 19, which center on 3rd and 4th degree perineal lacerations with and without instruments.
- The rate of third or fourth degree perineal lacerations range from 4% to 13%.[1]
- When they do occur, it can have a physical, psychological, and financial impact on all involved.[2] If left untreated it may lead to persistent perineal pain, sexual and urinary problems, and fecal incontinence. Patients and families may resort to legal action in order to offset the financial burden of an obstetric adverse event.[2]
- Not only does obstetric trauma cause patient harm, it also significantly increases the cost of patient care.
- As value-based purchasing evolves, lesser quality care is less likely to be paid for. Though obstetric trauma is not currently part of Medicare's Hospital Value-Based Purchasing program, these indicators could be considered for future inclusion.

Recommended Practice	Details of Recommended Practice
Identify patient risk factors associated with obstetric lacerations.	Identify and document any laceration risk factors patients may have.[3,4]
Use strategies to prevent third and fourth degree obstetric lacerations.	Use the following techniques to prevent obstetric lacerations:[4] • Allow time for adequate perineal thinning • Avoid an operative delivery • Avoid episiotomy • Perineal massage during the weeks before delivery in nulliparas • Lateral birth position • Perineal warm packs during the second stage

Best Processes/Systems of Care

Introduction: Essential First Steps

- Engage key nurses, physicians and other providers, hospitalists, respiratory therapists, dieticians, and pharmacists from infection control, intensive care, and inpatient units including operating room; and representatives from quality improvement and information services to develop time-sequenced guidelines, care paths, or protocols for the full continuum of care.

Recommended Practice: Identify patient risk factors associated with obstetric lacerations.

- The following are risk factors associated with third and fourth degree lacerations[3,4]:
    - Birth weight over 4 kg

- Persistent occipitoposterior position
- Nulliparity
- Induction of labor
- Operative delivery
- Mother age (< 21 years)
- Epidural analgesia (ensure that patients are not overly anesthetized)
- Second stage longer than 1 hour
- Shoulder dystocia
- Midline episiotomy
- Forceps delivery
- Use of oxytocin
- Delivery with stirrups

Recommended Practice: Use strategies to prevent third and fourth degree obstetric lacerations.

- Use the following techniques to prevent obstetric lacerations[4]:

  - Allow time for adequate perineal thinning.
  - Avoid an operative delivery.
  - Avoid episiotomy.[5]
  - Avoid induction of labor.
  - Use perineal massage during the weeks before delivery in nulliparas.
  - Ensure lateral birth position.
  - Use perineal warm packs during the second stage of labor.

Educational Recommendation

- Plan and provide education on protocols and standing orders to physicians and other providers, nurses, and all other staff involved in obstetric care. Education should occur upon hire, annually, and when this protocol is added to job responsibilities.[2]

Effectiveness of Action Items

- Identify perinatal quality improvement and obstetrical adverse event prevention as an organizational priority and set performance goals for your hospital.
- Define and routinely monitor and analyze your hospital's perinatal quality measure and obstetrical adverse event rates against internal and external benchmarks.
- Implement comprehensive, evidence-based perinatal safety protocols and hold staff accountable for compliance.[2]

Additional Resources

Systems/Processes

- Institute for Healthcare Improvement. Idealized Design of Perinatal Care http://www.ihi.org/resources/Pages/IHIWhitePapers/IdealizedDesignofPerinatalCareWhitePaper.aspx
- March of Dimes. Toward Improving the Outcome of Pregnancy III http://www.marchofdimes.com/professionals/toward-improving-the-outcome-of-pregnancy-iii.aspx

- Center for Medicare & Medicaid Innovation. Strong Start for Mothers and Newborns Initiative https://innovation.cms.gov/initiatives/strong-start/
- ACOG Recommends Restricted Use of Episiotomies http://www.acog.org/About_ACOG/News_Room/News_Releases/2006/ACOG_Recommends_Restricted_Use_of_Episiotomies
- Early Deliveries Without Medical Indications: Just Say No http://www.acog.org/About_ACOG/News_Room/News_Releases/2013/Early_Deliveries_Without_Medical_Indications

Policies/Protocols

- AHRQ Innovations Exchange. Rehearsing Team Care for Relatively Rare Obstetric Emergencies Leads to Improved Outcomes https://innovations.ahrq.gov/profiles/rehearsing-team-care-relatively-rare-obstetric-emergencies-leads-improved-outcomes
- AHRQ Innovations Exchange. Comprehensive Program Virtually Eliminates Preventable Birth Trauma https://www.innovations.ahrq.gov/profiles/comprehensive-program-virtually-eliminates-preventable-birth-trauma

Tools

- How-To Guide: Prevent Obstetrical Adverse Events. Cambridge, MA: Institute for Healthcare Improvement; 2012 http://www.ihi.org/resources/Pages/Tools/HowtoGuidePreventObstetricalAdverseEvents.aspx.

Staff Required

- Obstetricians
- Surgeons
- Obstetric nurses

Communication

- Systemwide education on policy/protocol of monitoring postoperative patients

Authority/Accountability

- Senior leadership mandating protocol for all providers

References

1. Webb D, Culhane J. Hospital variation in episiotomy use and the risk of perineal trauma during childbirth. Birth 2002 Jun;29(2):132-6.
2. Cherouny PH, Federico FA, Haraden C, et al. Idealized design of perinatal care. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2005. http://www.ihi.org/resources/Pages/IHIWhitePapers/IdealizedDesignofPerinatalCareWhitePaper.aspx. Accessed May 20, 2016.

3. Royal College of Obstetricians and Gynecologists. The management of third- and fourth-degree perineal tears. London, UK: RCOG; March 2007.
4. Chapter N: Third and fourth degree perineal lacerations. In: Advanced Life Support in Obstetrics (ALSO). Leawood, KS: American Academy of Family Physicians; June 2012. https://nf.aafp.org/Shop/advanced-life-support-in-obstetrics/also-syllabus. Accessed May 20, 2016.
5. ACOG Practice Bulletin. Episiotomy. Clinical Management Guidelines for Obstetrician-Gynecologists. Number 71, April 2006. Obstet Gynecol 2006 Apr;107(4):957-62.