Course Objectives

- Analyze current Data relative to shoulder dystocia (SD) practice, procedure, and patient safety
- Between participants, compare and contrast DATA relative to shoulder dystocia practice, procedure, and patient safety
- Discuss DATA goals relative to national, state, and local standards relative to shoulder dystocia practice, procedure, and patient safety

☼ BEST- Practice Management Guidelines
B: BEST Decision
E: Evidence-Based
S: Simple & Safe
T: Team Focused

☼ BESsT-
Shoulder Dystocia
Practice Management Guidelines
1. Shoulder Dystocia National Rates
2. Shoulder Dystocia & Birth Trauma Benchmarking
3. Prospective Interventions to ↓ SD
4. SD Safety Techniques
5. QA Tools & Indicators

Group Discussion #1
Question ?: [*Actual or Best Estimate]

❖ Hospital SD Rates?
- TOTAL = All incidents
- NON DM +/- Macrosomia Events
- Diabetes [DM] ONLY
- Macrosomia ONLY

❖ Does you Hospital have a plan to decrease Birth Trauma?
- How? What are your Objectives? Are they Evidence-based?
Data Analysis: Resources

- Joint Commission (JCAHO)
- Agency for Healthcare Research and Quality (AHRQ)
- National Quality Forum (NQF)
- National Perinatal Information Center (NIPC)
- MD Hospital Quality Indicator Project
- Leapfrog Group
- Institute of Medicine (IOM)
  - Adverse Outcome Index (AOI)
  - Weighted Adverse Outcome Score (WAOS)
  - Severity Index
- Patient Safety First: BEACON Collaborative

The Joint Commission

- Perinatal Core Measures

General ORYX requirements for hospitals
Hospitals are required to collect and transmit data to The Joint Commission for a minimum of four core measure sets or a combination of applicable core measure sets and non-core measures.

Agency for Healthcare Research & Quality

- US Department of Health & Human Services: AHRQ
- National Quality Measures Clearinghouse
  - The National Quality Measures Clearinghouse (NQMC™), sponsored by AHRQ, U.S. Department of HHS, has included Joint Commission measures in its public database for evidence-based quality measures and measure sets. NQMC is sponsored by AHRQ to promote widespread access to quality measures by the healthcare community and other interested individuals.

- The Hospital Quality Alliance
  - The AHA, FAH, and AAMC have launched a national voluntary initiative to collect and report hospital quality performance information. This effort is intended to make critical information about hospital performance accessible to the public and to inform and invigorate efforts to improve quality.
  - The Joint Commission, NQF, CMS, AHRQ and others support this initiative
  - Currently over 30 measures are reported on Hospital Compare including the ten “starter set” measures, and additional measures on which hospitals also voluntarily report. The measures reflect recommended treatments for acute myocardial infarction, heart failure, pneumonia, surgical care, asthma care for children, and the patient’s perspective of hospital care.

National Quality Forum

#0474: Elective Delivery
National Perinatal Information Center/Quality Analytic Services (NPIC/QAS) is a non-profit organization which began in 1985 with a charter membership of major perinatal centers across the United States. Since that time it has become recognized as an invaluable information and research resource to the health care community. NPIC/QAS has expertise in the analysis of large data sets, development of comparative benchmarking quality and utilization reports and evaluation of direct service programs.
MOD: March of Dimes
Toward Improving the Outcome of Pregnancy III (TIOP III): Enhancing Perinatal Health Through Quality, Safety & Performance Initiatives
http://www.npic.org/MOD_TIOPIII_FinalManuscript.pdf
Over 40 Organizations & Experts Collaborated
156 page Document
Chapter 7: Quality Improvement Opportunities in Intrapartum Care

Leap Frog Group
Mission Statement
To trigger giant leaps forward in the safety, quality and affordability of health care by:
• Supporting informed healthcare decisions by those who use and pay for health care; and,
• Promoting high-value health care through incentives and rewards.
The Leapfrog Group is a voluntary program aimed at mobilizing employer purchasing power to alert America’s health industry that big leaps in health care safety, quality and customer value will be recognized and rewarded. Among other initiatives, Leapfrog works with its employer members to encourage transparency and easy access to health care information as well as rewards for hospitals that have a proven record of high quality care.

The Leapfrog Hospital Survey is the gold standard for comparing hospitals’ performance on the national standards of safety, quality, and efficiency that are most relevant to consumers and purchasers of care. Hospitals that participate in The Leapfrog Hospital Survey achieve hospital-wide improvements that translate into millions of lives and dollars saved. Leapfrog’s purchaser members use Survey results to inform their employees and purchasing strategies. In 2009, 1206 hospitals across the country completed The Leapfrog Hospital Survey.

Institute of Medicine: IOM

BEACON/Perinatal Safety First Collaborative
Perinatal Safety First Goals:
Elective Deliveries: 0%-None
Birth Trauma: < 5%

Group Discussion #2
Question ?: [“Actual or Best Estimate]
❖ What are YOUR Hospital’s Perinatal Benchmarks relative to OVD & Birth Trauma Rates
  o TOTAL: Birth Trauma Related to SD
  o TOTAL: SD Rate
    o TOTAL : All Events
    o NON DM +/- Macrosomia Events
    o DM ONLY
    o Macrosomia ONLY
❖ What resources did YOUR Hospital use to determine YOUR benchmark parameters?
Joint Commission:

Core Measures in Perinatal Care
1. PC-01: Elective Delivery
2. PC-02: Cesarean Delivery
3. PC-03: Antenatal Steroids
4. PC-04: Health care–associated bloodstream infections in newborns
5. PC-05: Exclusive breast milk feeding

Joint Commission: Sentinel Event Alert #30; 2004

Sentinel Event Alert

Issue 30 - July 21, 2004
Editor's Note to Sentinel Event Alert Issue # 30

Please note that the Sentinel Event statistics have changed since the Sentinel Event Alert Issue # 30 was drafted. As of December 31, 2005, there are a total of 109 cases of perinatal death or permanent disability that have been reported to the Joint Commission for review under the Sentinel Event Policy. Of those 109 cases, 93 resulted in infant death and 16 cases involved major permanent disability.

Preventing infant death and injury during delivery

While a healthy and safe birth for the mother and infant is the goal for all labor and delivery units—regardless of the level of services available—in some instances, what should be a joyous, celebratory event turns to tragedy when the newborn dies. The rate of perinatal mortality in the U.S. has steadily declined to a rate of 6.9 deaths per 1,000 live births in 2001. (1) Nevertheless, since 1996, a total of 47 cases of perinatal death or permanent disability have been reported to the Joint Commission for review under the Sentinel Event Policy. Cases considered reviewable under the Sentinel Event Policy are "any perinatal death or major permanent loss of function unrelated to a congenital condition in an infant having a birth weight greater than 2,500 grams." Forty of the cases resulted in infant death and seven cases involved permanent disability. The mothers ranged in age from 13 to 41, with the average and median age being 27 years, and in just over one-half of the cases, it was the first child. The average gestation was 39 weeks.

While the absence of early and regular prenatal care is a leading contributor to the risk of infant death, review of the JCAHO's 47 cases reveals that lack of prenatal care was an identified maternal risk factor in just 4 percent of cases. Other identified maternal risk factors included age (13 percent), previous C-section (11 percent), diabetes (4 percent), and substance abuse (4 percent). Identified complications during the birth included: non-reassuring fetal status (77 percent), placental abruption (8 percent), ruptured uterus (8 percent), and breech presentation (6 percent). Forty-nine percent of the cases were emergency C-section; 46 percent vaginal deliveries; and 4 percent delays in C-section decision. Of the vaginal deliveries, 21 percent were vacuum extraction delivery or attempted; 13 percent mid forceps delivery or attempted; 11 percent failure to do indicated C-section; and 8 percent vaginal birth after C-section (VBAC).

Root causes identified

In the 47 cases studied, communication issues topped the list of identified root causes (72 percent), with more than one-half of the organizations (55 percent) citing organization culture as a barrier to effective communication and teamwork, i.e., hierarchy and intimidation, failure to function as a team, and failure to follow the chain-of-communication. Other identified root causes include: staff competency (47 percent), orientation and training process (40 percent), inadequate fetal monitoring (34 percent), unavailable monitoring equipment and/or drugs (30 percent), credentialing/privileging/supervision issues for physicians and nurse midwives (30 percent), staffing issues (25 percent), physician unavailable or delayed (19 percent), and unavailability of prenatal information (11 percent).
Risk reduction strategies
As required under the Sentinel Event Policy, based on their root cause analyses, organizations develop an action plan citing the steps they will take to reduce the risk of similar future adverse events. The risk reduction strategies identified by these organizations include:

- Revise orientation and training process (70 percent)
- Physician education and counseling (36 percent)
- Revise communication protocols (36 percent)
- Reinforce chain-of-communication policy (28 percent)
- Revise competency assessment (25 percent)
- Standardize equipment and drug availability (25 percent)
- Conduct team training (25 percent)
- Revise consultation and on-call policies and procedures (23 percent)
- Revise Medical Staff credentialing and privileging process (21 percent)
- Institute changes in the patient assessment policy (21 percent)
- Standardize the evaluation and monitoring process (21 percent)
- Revise the staffing plan and process (17 percent)
- Adopt American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG) guidelines for perinatal care (13 percent)
- Institute mock OB emergency training drills (11 percent)
- Revise the conflict resolution policy (8 percent)
- Revise transfer policies and procedures (4 percent)

AHRQ: Instrumental Vaginal Birth


National Quality Forum
The NQF has approved a set of national voluntary consensus standards for measuring the quality of hospital care. These measures will permit consumers, providers, purchasers, and quality improvement professionals to evaluate and compare the quality of care in general acute care hospitals across the nation using a standard set of measures.
The majority of the Joint Commission’s measures are endorsed by NQF and are denoted on the measure information forms.

#0474: Elective Delivery
NQF: #0474/PSI #17: Birth Trauma Rate- Injury to Newborns

- [http://www.qualityforum.org/Measures_List.aspx](http://www.qualityforum.org/Measures_List.aspx)
Perinatal Safety First Goals:
- Elective Deliveries: 0%-None
- Birth Trauma: < 5%
- Utilizing AHRQ: PSI #17

Group Discussion #3
Question ?:
- How many of HOSPITALS utilize LOCAL/STATE benchmarks to facilitate Perinatal Patient Safety?
  - BEACON Collaborative
  - Other State Source

Near-Miss Model
Definition
An Incident or unsafe condition with potential for injury or harm
- More Frequent
- Smaller in Size

Frequency Triangle

Near-Miss Model
Layers of Safety:
\textit{Patient Protection/Armor}
Birth Trauma Rates:
- **Attributeable to SD**
  - Brachial Plexus Injury
  - Clavicular Fracture
  - Humerous Fracture
  - Perinatal Asphyxia
  - Other Specified Birth Trauma

SD Rates:
- **TOTALs:**
  - SD: All Incidents
    - *NEAR-MISS DATA
  - NON DM +/- Macrosomia Events
    - *NEAR-MISS DATA
  - DM ONLY
    - *NEAR-MISS DATA
  - Macrosomia ONLY
    - *NEAR-MISS DATA
  - DM + Macrosomia
    - *NEAR-MISS DATA
  - Maneuver Success Rates: Single
    - *NEAR-MISS DATA
  - Maneuver Success Rates: Multiple
    - *NEAR-MISS DATA

Goals in Obstetrics
*Reduce SD or Increases Successful Maneuvers*

- **Perinatal Care GOALS**
- **Birth Trauma: (Attributeable to SD)**
  - **TOTAL:**
    - All Hospitals: 0%-NONE
    - SD Rates: Spontaneous + Induced
  - **TOTAL: Spontaneous: NON DM +/- Macrosomia**
    - *NEAR-MISS DATA
    - Dependent on Patient Population
    - Level III ↑ Rate
    - Level I ↓ Rate
  - **Spontaneous: DM**
    - *NEAR-MISS DATA
    - Dependent on Patient Population
    - Level III ↑ Rate
    - Level I ↓ Rate
  - **Spontaneous: Macrosomia**
    - *NEAR-MISS DATA
    - Dependent on Patient Population
    - Level III ↑ Rate
    - Level I ↓ Rate
Spontaneous: DM + Macrosomia
  - *NEAR-MISS DATA
  - All Hospitals: 0%-NONE

Shoulder Dystocia: Algorithm
  - SD Management
    - How long should SD Management Persist?
    - 2 Contractions?
    - Limit Head-Body Delivery Time
    - Fetal pH Drops:
      - Goal:
        - 5 Minutes OR 2 Completed Contractions

Shoulder Dystocia: Management
  - Elective Cesarean Section is Limited
  - Quick Diagnosis
  - Collaborative Team Response
  - SD Management varies with Skill & Competency of Delivering Practitioner
    - There is an inverse relationship between the incidence of Brachial Plexus injuries from
      SD and the experience of the obstetrician
      (Acker et al., 1988)
  - Non-surgical Skill → Surgical Backup

BESsT-Shoulder Dystocia
  Data Analysis
  1. QA Tools & Indicators
    - SD-NEAR-MISS Analysis
      - Chart Review for Risk Factors (DM + Macrosomia >4000gm)?
      - Labor Dystocia Management?
      - Second Stage Labor Management?
    - Rate of SD
      - Spontaneous
      - Induced with Maneuvers
        - Assess Charts for Inappropriate Use of Fundal Pressure
    - Rates of Associated Birth Trauma:
      - Lacerations
      - Episiotomy Rate per Practitioner Groups v Individuals
      - Brachial Plexus Injury
      - Cervical Spinal Injury
      - Orthopedic Injury: Clavicle or Humorous
      - Perinatal Asphyxia
        - 5min Apgar Score <7
        - Cord pH <7.0 & BD -12 or <
Perinatal University
Patient Safety Goals:
Increase Patient Safety thru Evidence, Education, Reliability, & Hard-stop Approach:
  ● 100% Reduction in Birth Trauma Events, all types
  ● Follow Labor Curve for signs of Dystocia
  ● Utilize NON-Invasive, Basic Maneuvers to correct SD
  ● Increased Perinatal SD Patient Safety

www.perinatalu.org

Questions?

NOTES: