Standards of Care for Cesarean Birth

**Objectives**

- Discuss the standard of care for women undergoing cesarean birth
- State rationale for standardizing the approach to emergent cesarean birth

**Standards of Care for Women Undergoing Cesarean Birth**

- Planned/Scheduled
  - Elective
  - Maternal or fetal indication
  - Repeat cesarean birth
- Unplanned
  - Failed trial of labor
  - Deteriorating maternal or fetal condition
  - Emergency cesarean birth

**Cesarean Birth Rates In the United States**

**Types of Cesarean Birth**

- Cesarean delivery on maternal request should not be performed before 39 weeks gestation
- Should not be motivated by unavailability of effective pain relief
- Not recommended for women desiring several children

(ACOG 2007)
Repeat Cesarean Deliveries

- 3 or more cesarean deliveries increases risk for:
  - Difficult surgery
  - Excessive bleeding
  - Adhesions
  - Difficult delivery of the newborn

Standard of Care

“Patients with comparable needs receive the same standard of care, treatment or services throughout the organization”

The Joint Commission 04.03.07a

ACOG

Patient Safety in the Surgical Environment

Abstract: Ensuring patient safety in the operating room begins before the patient enters the operative suite and includes attention to all applicable components of preventable medical and surgical errors. For example, hospitalists identify high-risk areas and prioritize the reduction of errors thought to be preventable. A key approach is to ensure the use of prevention strategies that have been shown to work, such as standardizing the preoperative process, working with structured communication between the patient, the surgeon, and other members of the healthcare team. Prevention of surgical errors requires the attention of all personnel involved in the patient care.

Operating Room Attire

In semi-restricted and restricted areas personnel should wear hospital laundered surgical attire intended for use only within the surgical suite. Personal clothing may not extend above the collar or below the sleeves of the scrub top

Surgical Attire

(AORN 2010)
“The role of your circulator can be no different than the role of the circulator in your general OR”

The circulator is responsible for only the mother during the entire stay in the operating suite. Another registered nurse should be assigned to care for the baby.

AORN 2010, AWHONN 2010

“At birth, at least one person whose sole responsibility is neonatal resuscitation should be present to care for the newborn. Either this person or someone else who is immediately available should be able to perform a complete resuscitation including endotracheal intubation and medication administration.”

AHA, AAP, ACOG 2007

Pre-operative

- Pre-op shower - 2 preop showers prior to scheduled surgery with 4% chlorhexidine gluconate
  (AORN 2010, Cochrane Review 2007)
- Admission labs
  - Postpartum hemorrhage risk
    (CMQCC 2010)
- Preload of IV fluid prior to spinal anesthesia
- Antacids
  - Non particulate antacids, H2 receptor antagonist or metoclopramide prior to surgery
    (ASA 2007)

Preoperative

- Antibiotic prophylaxis
  - Within 60 minutes prior to skin incision
  - Narrow spectrum
    - Cefazolin - 1 gram 30-60 mins before surgery
    - Clindamycin and gentamycin
    - Azithromycin 500mg infusing IV during the hour prior to surgery
  - Obese patients
    - Ancef 1-2 grams IV
    (ACOG 2010)

Pre-operative

- Thromboprophylaxis for cesarean birth
  - Risk assessment for all women undergoing cesarean birth
  - Emergent cesarean delivery increases risk to 22 times greater than in a non-pregnant woman
  - Mechanical and Chemoprophylaxis
Pre-Operative

- Pre-warming
  - Warm IV fluids vs. room temperature
    - Increases maternal core temperature
    - Improved umbilical arterial pH
    - Improved Apgar scores
    - Improved maternal comfort
  - Forced warming air devise/warm blankets
    - 15 minutes

Pre-operative

- Pre-operative checklist
- Universal protocol
- Education

Pre-operative

- Hair removal
  - Clipped versus shaved
  - Outside the OR
  - As near surgery time as possible

(AORN 2010)

Opening the OR

“A sterile field should be maintained and monitored constantly”
“There is no specified amount of designated time that a room can remain open and not be used and still be considered sterile”
“Sterile fields should be prepared as close as possible to the time of use”
“Sterile fields should not be covered”

(AORN 2010)

Intraoperative Period

Intraoperative Care

- Proper body alignment
- Arm boards less than 90°
- Palms facing up
- Lateral tilt
- Safety strap above the knees – the RN should place her hand between the strap and the patient to ensure the strap is not applying excessive pressure

(AORN 2010)
Fetal Monitoring

"In women requiring cesarean delivery fetal surveillance should continue until abdominal sterile preparation has begun"

“If internal fetal heart rate monitoring is in use, it should be continued until the abdominal preparation is complete"

(Perinatal Guidelines for Care 6th Edition 2007)

Electrosurgery

“AORN has stated that electrosurgery is the most “hazardous therapeutic device used on a daily basis”, and in fact, “causes more patient injury than any other electromedical device in the O.R.”

Electrosurgery Safety

- Weight limits of beds, stretchers and OR table
- Mattress should provide adequate support and not “bottom out”
- Extra wide safety straps - may need 2 place one on the upper legs and one on the lower legs
- May not tolerate supine positioning- ramping

(AORN 2010)

BMI 40 or Greater

- Prep solutions
  - Alcohol based increased fire potential
    - Avoid pooling of solution
    - Prep agent should be allowed to dry and vapors to dissipate prior to placement of surgical drape or use of electrosurgery
    - Use of flammable prep agent should be discussed during the “Time Out”
    - Documentation of the precautions taken when flammable agents are used (i.e. agent allowed to dry completely)
    - Disposal of unused solution in a chemical hazard receptacle

(AORN 2010)
Counts

- Counts should be done audibly and viewed concurrently by two individuals, one of whom should be a RN circulator.
- Instruments:
  - Beginning, prior to wound closure and permanent relief of scrub or/circulating nurse.
- Needles and Sponges:
  - Beginning, closure of a cavity within a cavity, before wound closure and at skin closure.
- Incorrect Counts:
  - X-RAY taken before the patient leaves the OR.

(AORN 2010)

Safe Medication Practice

- Medications
- Labeling
- Orders for medications given during procedure
- Irrigation

(AORN 2010)

Emergency Cesarean Birth

30 minute rule
- Team in house or readily available
- Decision to incision
- Some indications for cesarean delivery can be appropriately accommodated in longer than 30 minutes
- Some clinical situations require more expeditious delivery

Management of Intrapartum Fetal Heart Rate Tracings

Intrapartum electronic fetal monitoring (EFM) is used for most women who give birth in the United States. As such, clinicians are faced daily with the management of fetal heart rate (FHR) tracings. The purpose of this document is to provide obstetric care providers with a framework for evaluation and management of intrapartum EFM patterns based on the new three-tiered categorization.

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Lack of scientific evidence to support this threshold
Category III EFM tracing
- Accomplish as expeditiously as feasible
- Decision-to-incision interval and mode should be based on the timing that best incorporates maternal and fetal risks and benefits.

Definition of urgent versus emergent
Prioritize care based on risk versus benefit
Patient safety
Same approach every time

32 Anesthesiologists! 52 Surgeons! 64 Nurses! = 3.5 million teams

It’s All About Teamwork

Team Leader
De-Briefing

- Short brief immediately after the event
- Most effective when conducted in a non-judgmental environment
  - What went well
  - What could we have done better
  - Barriers
  - Lessons learned to alter the plan next time

ACLS

- AWHONN position statement –
  - Does not mandate ACLS for obstetrical nurses
- ASPAN
  - ACLS for Phase I and phase II

Could this standard be met in another way? Yes, it can:
when a CRNA or physician ACLS provider stays in the room with the L&D nurse the entire time until the patient reaches the predetermined criteria for discharge.

PACU Standards

- Equipment
- 2 RNs during initial admission
  - Mother
  - Newborn
- PP assessment
- Pain management
- Support skin to skin and breastfeeding