

Guidelines
for
**AUXILIARY
MATERNITY
UNITS**



**Commission for the
Accreditation of Birth Centers**
Supporting Standards & Inspiring Excellence through Learning

GUIDELINES FOR AUXILIARY MATERNITY UNITS

This document was developed by
the American Association of Birth Centers and
the Commission for the Accreditation of Birth Centers

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INTRODUCTION

The American Association of Birth Centers (AABC) and the Commission for the Accreditation of Birth Centers (CABC) are the experts in low-risk birth. These organizations have developed and implemented standards and measures for the accreditation of freestanding birth centers and alongside midwifery units. These organizations represent midwifery, nursing, obstetrics, maternal/fetal medicine, neonatology, and consumers.

Healthy pregnant persons and babies are being affected by exposure to COVID-19 and the consequences of hospital surge capacity. Implementing recommendations to create Auxiliary Maternity Units will provide for the health, safety, and personalized experience of families and address unprecedented daily challenges of overburdened hospitals. This document has been developed by AABC and CABC to support the **implementation of temporary auxiliary maternity units during this COVID-19 crisis.**

These auxiliary maternity units are not freestanding birth centers or alongside midwifery units. For assistance and standards for these models, refer to the AABC, which publishes the *Standards for Birth Centers*, and the CABC which accredits freestanding birth centers and alongside midwifery units, and publishes *Indicators of Compliance for Standards for Birth Centers* and *Alongside Maternity Center Indicators*.

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1. Philosophy and Scope of Service

- A. There is a shared commitment to collaborative respectful practice among all disciplines and across levels of care.
- B. There is a leadership team which includes whenever possible midwifery, obstetrics, neonatology and nursing.
- C. There is ongoing risk assessment with adherence to eligibility criteria that includes, but is not limited to:
 - 1) Gestational age limited to 36 0/7-42 0/7 weeks
 - 2) Singleton pregnancy
 - 3) Cephalic presentation
 - 4) No hypertensive disorders even if characterized as mild or controlled
 - 5) No medication-dependent diabetics
 - 6) No maternal or fetal/neonatal conditions that will exceed the capacities of the unit
- D. Patients should be pre-identified for planned admission to the unit in labor.
 - 1) The unit must have a plan for screening of unplanned walk-in patients
- E. Patients requiring intrapartum interventions are not appropriate in a low-risk unit and should be transferred to the appropriate level of care in a timely manner. These interventions include but are not limited to:
 - 1) Pharmacologic agents for cervical ripening, induction, and augmentation of labor
 - 2) Regional spinal or epidural anesthesia
 - 3) Operative vaginal birth forceps and vacuum
 - 4) Cesarean birth
- F. There is an established consultation, collaboration or referral system to meet the needs of a mother or neonate outside the scope of the unit in both emergency and non-emergency circumstances.
 - 1) There is a PREARRANGED, mutually agreed upon plan for access to acute care services that meets the following criteria:
 - a) Unit notifies the receiving provider or hospital of the impending transfer, reason for transfer, brief relevant clinical history, planned mode of transport, and expected time of arrival.
 - b) Prior to arrival at the hospital, provides a legible copy of relevant prenatal and labor health records.

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- G. The unit provides intrapartum care that promotes physiologic birth including, but not limited to:
 - 1) Regular and appropriate assessment of the mother and fetus throughout labor
 - a) As the evidence supports, intermittent auscultation is encouraged
 - 2) Supportive care during labor including a support person of the mother's choice.
 - 3) Freedom of movement
 - 4) Oral intake as appropriate
 - 5) Availability of both pharmacologic and non-pharmacologic pain relief methods
- H. There is a pre-arranged plan for the availability of obstetrical and neonatal telephone consultation and acute care services 24/7.
- I. There is a pre-arranged plan for the emergent and non-emergent transfer of mother and/or neonate 24/7.
 - 1) All unit staff have been educated on the conduct of an emergent and non-emergent transfer
 - 2) Unit shall be aware of transport service's equipment and personnel training for management of maternal emergencies and neonatal resuscitation during transport
 - 3) There is plan to assure management of maternal emergencies and neonatal resuscitation during transport
- J. The unit provides family-centered postpartum and newborn care, with non-separation of the mother and neonate for routine care.
- K. There is coordination and/or provision of care and support during the immediate and early postpartum periods including, but not limited to:
 - 1) Maternal and newborn assessments and follow-up plans
 - 2) Current recommended newborn screenings
 - 3) Breastfeeding support and referral
 - 4) Screening for postpartum social and psychological issues, including intimate partner violence
 - 5) Family planning services or referral
- L. Early discharge may be appropriate with established criteria and appropriate follow-up for mother and neonate.

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2. Human Resources

- A. All clinical staff provide evidence of the knowledge, training and skills required to provide the services offered by the unit, including promoting physiologic birth and breastfeeding.
- 1) Personnel files will contain at minimum:
 - a) Verification of licensure as required by the state
 1. Where no licensure is available for community birth providers, evidence of North American Registry of Midwives (NARM) certification
 - b) Evidence of current neonatal resuscitation program (NRP) and cardiopulmonary resuscitation (CPR) training
- B. There are adequate numbers of skilled clinical and support staff scheduled to be available to:
- 1) Meet demands for services routinely provided
 - 2) Provide coverage during periods of high demand or emergency
 - 3) Assure client safety
 - 4) Promote and support physiologic birth
 - 5) A minimum of 2 scheduled staff who are privileged, oriented and trained, at each birth
 - a) Both staff members shall be trained in all NRP modules and capable of performing the full algorithm of neonatal resuscitation
- C. The unit facilitates orientation to (at a minimum):
- 1) Clinical policies and procedures
 - 2) Most pertinent personnel policies (payroll, timeclock, uniform, chain of command)
 - 3) Facility and equipment:
 - a) Use of personal protective equipment (PPE) and exposure control plan
 - b) Location of emergency equipment and supplies
 - c) Contact numbers
 - d) Evacuation plan
 - e) Charting systems
 - 4) Emergency procedures (by simulation drill):
 - a) Transfer in emergent situation
 - b) Postpartum hemorrhage
 - c) Newborn resuscitation
 - d) Basic life support/CPR

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3. Facility, Equipment and Supplies

- A. The unit complies with facility licensure regulations in its state.
- B. The unit has appropriately placed smoke alarms and fire extinguishers.
- C. The unit has a drill procedure and all staff are oriented to evacuation procedures.
- D. The unit has posted exit signs.
- E. There is safe storage of oxygen tanks.
- F. The unit has appropriate emergency lighting and task lighting.
- G. The unit's patient care records are protected from public access.
- H. The unit has designated "clean" and "dirty" areas for appropriate purposes.
- I. The unit has adequate bathroom facilities for patients and staff.
- J. The unit has adequate space for laboring patients, staff, and emergency personnel.
 - 1) Three-sided access to birthing patients
 - 2) Three-sided access to newborn for neonatal resuscitation
 - 3) Doorways and hallways 32 inches or wider, free of barriers such as furniture or equipment that would impede access to mother and neonate.
- K. The unit complies with regulations for trash and biomedical trash storage and removal.
- L. The unit has sinks available in all patient care areas or waterless hand wash.
- M. The unit complies with CDC and OSHA standards and contact precautions for blood borne and respiratory pathogens.
 - 1) Availability of appropriate PPE for staff.
 - 2) Clearly marked biohazard trash containers.
- N. The unit has a mechanism to prevent unauthorized access and to protect against newborn abduction.
- O. The unit has sufficient equipment to handle the expected caseload and at a minimum two simultaneous emergencies:
 - 1) Blood pressure equipment in regular and large sizes
 - 2) Thermometers
 - 3) Dopplers (or electronic fetal monitors (EFMs))
 - 4) Neonatal and adult stethoscopes

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- 5) Glucometer
 - 6) Pulse oximeter FDA approved for critical congenital heart disease (CCHD) screening
 - 7) Sterilizer or disposable supplies
 - 8) Sterile or disposable instruments for delivery, episiotomy, and repairs
 - 9) Equipment for adult IV administration (18 and 20 gauge intravenous catheters, tubing, secure tape/dressings,
 - 10) Lactated ringers or normal saline
 - 11) Infant scale
 - 12) Maternal face mask for O2 with tubing
 - 13) Adult size bag valve mask assembly (ambubag)
 - 14) Oxygen in sufficient amounts for maternal or neonatal use
- P. The unit maintains the following medications (at a minimum):
- 1) Epinephrine 1:1,000
 - 2) Benadryl
 - 3) Medication for management of postpartum hemorrhage (Pitocin, misoprostil, methergine or TXA)
 - 4) Epinephrine 1:10,000
 - 5) Medication as appropriate for GBS intrapartum prophylaxis
 - 6) Newborn medication (Vitamin K, erythromycin for eye prophylaxis, Hepatitis B vaccine)
- Q. The unit maintains the following neonatal emergency equipment:
- 1) Heat source
 - 2) Suction equipment
 - 3) Pulse oximeter
 - 4) Oxygen source with flow meter and tubing
 - 5) Flow, self-inflating or T piece devices for resuscitation
 - 6) Neonatal face mask
 - 7) Advanced airway system either laryngeal mask airway (LMA) in size 1 and/or 3.5 endotracheal tube and laryngoscope with size 1 blade
 - 8) Supplies for emergency vascular access, either umbilical catheterization kit or intraosseous supplies
 - 9) Transfer capability for both a stable or unstable neonate

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- R. The unit has a mechanism to assure that all supplies, medications and equipment are in appropriate amounts, not past expiration dates, and stored appropriately.
- S. The unit assures that all chemicals, cleaning agents, medications and needles are secured from public access.
- T. The unit assures that all medication storage and use and disposal are in accordance with state and federal regulations.
 - 1) Proper temperature storage
 - 2) No expired medications
 - 3) No repackaging or dispensing of medications
 - 4) No unmarked containers of medications
 - 5) Compliance with logs for controlled substances
- U. The unit has a reliable means of outside communication available in every patient care area.

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4. The Medical Record

- A. Medical records of the unit are legible, complete and accurate.
- B. Maternal and newborn information is readily accessible to the health care team and maintained in a system that provides for storage, retrieval, privacy and security that is compliant with state and federal standards.
- C. The unit will have a copy of each patient's prenatal care record, furnished prior to admission, that includes pertinent information necessary for intrapartum/postpartum care but is not limited to:
 - 1) Labs
 - 2) Ultrasounds
 - 3) Any diagnostic tests and flow sheet of vital signs and assessments of maternal/fetal status
- D. The unit's medical record will facilitate full documentation of intrapartum, postpartum and neonatal assessments and care rendered.
- E. The unit's medical record will document a discharge summary and follow up care plans for mother and neonate.
- F. There is a mechanism for providing the medical records to the receiving facility/provider if transferred to a higher acuity level facility.
- G. There is a mechanism for patient to obtain a copy of their records.

5. Quality Evaluation and Improvement

- A. There is an effective quality improvement program that utilizes root cause analysis or other appropriate tools in order to identify quality issues and develop rapid cycle improvement plans.
- B. Policies and procedures specific to the auxiliary maternity unit are consistent with the best available evidence for:
 - 1) Risk screening and identification of deviations from normal
 - 2) Perinatal care for low-risk mothers and neonates
 - 3) Supporting physiologic labor and birth
 - 4) Postpartum and neonatal care, including feeding practices
 - 5) Initial management of obstetrical and neonatal emergencies with stabilization for transfer if indicated
- C. There is a plan for the use of drills to achieve, maintain, and evaluate staff and team competency in responding to emergencies that includes:
 - 1) Format of drills is simulation
 - 2) Content addresses medical emergencies most likely to be encountered in providing intrapartum, postpartum, and neonatal care for low-risk mothers and neonates, including but not limited to:
 - a) Hemorrhage
 - b) Abnormal fetal heart rate patterns
 - c) Shoulder dystocia
 - d) Neonatal resuscitation
 - e) Emergency transfer of mother and/or neonate
 - 3) If possible, some transfer drills should include full transfer scenario so that receiving facility is involved, particularly when the unit is newly implemented.
- D. There is a system for collection and review of critical data, ideally through a data registry designed for perinatal research, that includes but is not limited to:
 - 1) Cumulative quantitative blood loss blood loss >1000cc
 - 2) Neonatal 5-minute Apgars <7
 - 3) Rates of transfer of mother or neonate:
 - a) Emergent transfers
 - b) Maternal intrapartum or postpartum transfers
 - c) Neonatal transfers
 - 4) Cesarean delivery rate
 - 5) Neonatal intensive care unit admissions

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- 6) Maternal intensive care unit admissions
 - 7) Maternal, fetal, or neonatal mortality
 - 8) Significant maternal or neonatal morbidity
 - 9) Readmissions of mother or neonate after discharge from the AMU
 - 10) Percentage of mothers intending to breastfeed who were exclusively breastfeeding on discharge
 - 11) Mothers or newborns determined to be COVID-19 positive within 14 days of receiving care in the unit
- E. There is a system for collection and review of basic utilization statistics including but not limited to:
- 1) Number of admissions
 - 2) Number of births
 - 3) Length of stay prior to birth
 - 4) Length of stay after birth
- F. There is a mechanism in place for:
- 1) Review of all unusual events and outcomes, including a list of sentinel events that will trigger case review
 - 2) Review of all emergent transfers of mothers and newborns
 - 3) Assessing for outliers and trends, with follow-up as appropriate
- G. There is a mechanism in place for regular inspection and maintenance of:
- 1) Medical equipment
 - 2) Facility safety
 - 3) Inventory control for supplies and medications

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Appendix A SAMPLE ELIGIBILITY CRITERIA FOR ADMISSION TO AUXILIARY MATERNITY UNIT

Risk Assessment and Eligibility

1. Risk criteria will be applied to all pregnant persons requesting delivery at unit. Only healthy, low risk pregnant persons with gestational ages of 36-42 weeks are eligible for auxiliary maternity unit delivery.
2. Accepted pregnant persons will be continuously evaluated for presence of any possible condition requiring consultation, collaboration, referral or transfer of care.

Medical conditions that make a patient ineligible for auxiliary maternity unit delivery include:

- Active heart disease
- Essential hypertension
- History of DVT, pulmonary emboli or any condition requiring anticoagulation therapy other than low-dose aspirin
- Diabetes other than diet controlled GDM
- Hepatitis-active
- Current epilepsy or seizure disorder
- Mental or emotional disorders other than mild depression/anxiety (with or without medication)
- Quad- or paraplegia
- Active syphilis
- Severe autoimmune disease including active lupus
- Unresolved infectious disease
- Substance use disorder

Obstetrical conditions that would prohibit auxiliary maternity unit delivery include:

- Placenta – vasa, complete or low lying < or =2 cm of os
- Known velamentous cord insertion
- Multiple gestation
- Known non-vertex presentation at labor
- Gestational age <36.0 or >42.0 weeks.
- Estimated fetal weight <2500 grams or >4500 grams at start of labor

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- Fever
- Oligohydramnios or other non-reassuring fetal surveillance testing
- Severe anemia (Hgb <9.0).
- Active Genital HSV II upon admission
- Known intrauterine growth restriction
- Pre-eclampsia or gestational hypertension

Intrapartum factors which require hospital transfer include:

- Abruptio or vaginal bleeding other than normal show
- Pre-eclampsia or elevated blood pressure
- Non-reassuring fetal heart tones, unresponsive to usual interventions
- Prolonged 2nd stage
- Prolonged 3rd stage >1 hour

Postpartum factors which require hospital transfer include

- Postpartum hemorrhage or unstable maternal vital signs not controlled by basic interventions
- Development of a hypertensive disorder postpartum
- Retained placenta >1 hour, retained fragments
- Maternal laceration requiring resources beyond the unit's capacity
- Increasing hematoma
- Fever or other signs of infection

Newborn factors which require hospital transfer include

- Persistent respiratory distress
- Tachycardia not resolving
- Hypo or hyperthermia unresponsive to usual measures
- Hypoglycemia unresponsive to usual measures
- Pallor
- Central cyanosis
- Persistent poor tone
- Congenital anomaly requiring hospitalization
- 5-minute APGAR <6
- Prolonged resuscitation or resuscitation requiring chest compressions
- Less than 36 weeks by clinical gestational age assessment

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Appendix B

SAMPLE OBSTETRIC EMERGENCY PROTOCOLS FOR AUXILIARY MATERNITY UNITS

NOTE: This document is not intended to cover all obstetric/neonatal emergencies but provides a sample to use as a template for developing one's own.

- Remember to keep the woman and her partner informed of what is going on.
- Call for help as needed.
- These actions below are outlined with prioritization in mind, however, the provider and RN should be performing some simultaneously.

Emergency phone numbers:

- List all pertinent transfer facility numbers including labor and delivery/ER and fax numbers for records
- 911: Give patient name, street address, nature of emergency and how to enter the building.

UTERINE INVERSION

May result in severe hemorrhage, shock and death.

Steps will be performed simultaneously by provider and RN.

1. RN to call for additional personnel in the unit if available.
2. Call 911 and/or initiate emergency maternal transfer protocol (link).
3. RN to insert 2 large bore IVs and begin fluid replacement
4. Address ABCs (airway, breathing, circulation)
5. Provider to attempt to manually reposition uterus. Use your hand to push the fundus along the long axis of the vagina towards the umbilicus. **Leave placenta attached**
6. If a constriction ring is palpable, apply pressure to the part of the fundus nearest the ring to ease it through the ring from the bottom to the top.
7. If unsuccessful, give uterine relaxant: Nitroglycerin spray, 2 sprays under the tongue (400mcg per spray dosing). EMS carries Nitroglycerin spray if not stocked in low risk unit.
8. Count to 10
9. Attempt to manually reposition again.

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10. If unsuccessful, massage uterus and ensure continuation of ABCs.
11. RN should call Labor and Delivery to give report when able
12. Fax records

ANAPHYLAXIS:

May lead to fetal asphyxia or death.

The most common signs and symptoms are cutaneous (eg. sudden onset of generalized urticaria, angioedema, flushing, pruritis) however 10-20% of patients have no skin findings. Pregnant women may have vaginal or vulvar itching, lower back pain, non-reassuring FHR and PTL.

Danger signs: Rapid progression of symptoms, respiratory distress (e.g. stridor, wheezing, dyspnea, increased work of breathing, persistent cough, cyanosis, abdominal pain, hypotension, dysrhythmia, chest pain, collapse.

1. Call for help
2. Call 911 and/or initiate emergency maternal transfer protocol. (link)
3. Immediate injection of epinephrine IM (1mg/ml concentration). Give 0.3-0.5mg (0.5ml) IM in outer thigh
4. Can repeat every 5-15 minutes. Patients should not sit upright or stand.
5. 8-10 liters O2 via facemask
6. Place patient on their left side and elevate lower extremities
7. Monitor FHR every 5 min at the minimum
8. Treat hypotension with 1-2 liters of LR or NSS IV rapid bolus. Avoid glucose solutions.
9. Consider IV Benadryl 25-50mg for hives and itching only

POSTPARTUM HEMORRHAGE—SEVERE

Most common cause is uterine atony. Consider trauma and coagulopathy. If signs of excessive blood loss without overt bleeding or severe pain in rectum or abdomen--consider internal laceration or hematoma.

1. Call for help
2. Call 911 and/or initiate emergency maternal transfer protocol (link).
3. Vital signs q5 min
4. IV start with large bore catheter—begin volume resuscitation
5. 8-10 liters O2 via facemask
6. Increase oxytocin rate if infusing IV (20-40 units in 1000 CC LR)
7. Uterine massage--bimanual compression

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8. Remove clots from cervix, lower uterine segment and to the fundus if appropriate
9. Uterotonic medications (may choose order according provider preference)
 - Misoprostol 1000mcg PR *OR* 600-800 mcg SL or PO
 - Methergine 0.2mg IM **if not hypertensive**—*may repeat every 2 to 4 hours*
 - Hemabate 0.25mg IM (250mcg) *q15 min—max 8 doses—if no history of asthma*
10. Foley catheter
11. Examine for lacerations, vaginal and cervical
12. Sponge forceps can stabilize a cervical laceration
13. Monitor ABCs

AMNIOTIC FLUID EMBOLISM

A rare but life-threatening condition that precipitates cardiogenic shock, respiratory failure and anaphylactoid reaction with fetal squamous cells present in pulmonary and circulatory vasculature. No known cause. High mortality rates (75%) with high levels of neurologic compromise in survivors.

- Dyspnea and respiratory failure (think pulmonary edema)—audible wheezing or crackles may be heard.
 - Agitation
 - Hypotension
 - Hypoxemia
 - DIC
 - Coma and seizures
 - Cardiac arrhythmias may accompany cardiogenic shock (pulseless electrical activity, bradycardia, Vfib and asystole)
1. Call for help
 2. Call 911 and/or initiate emergency maternal/transfer protocol ([link](#))
 3. DCAB—(Apply AED, circulation, airway, breathing (connect O2 to ambu bag), maternal pulse ox)
 4. 30o left lateral tilt and chest compressions higher on sternum (slightly above center of sternum)
 5. After 2 minutes of CPR if rhythm unshockable—give epinephrine IV 1mg (1ml) q3-5 min
 6. 2 large bore IVs wide open or 500cc/hr
 7. O2 10 liters via FM if breathing on their own
 8. Provide supportive measures until transfer personnel arrive.

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CORD PROLAPSE

Diagnosed by seeing or feeling umbilical cord in front of babies head or protruding from the vagina.

1. Call for help
2. Call 911 and/or initiate emergency maternal transfer protocol (link)
3. Place patient in knee chest position
4. Gently elevate the presenting part off the cord
5. Fill bladder with 500-700 milliliters of NSS using foley catheter
6. Administer Terbutaline 0.25mg SQ
7. Monitor fetal heart rate-if FHR normal, no not touch the cord
8. Maternal O2 10 L via FM if abnormal heart rate
9. 2 large bore IVs and run LR
10. Have records faxed if possible, RN to fax after patient leaves as last resort

PROLONGED OR DEEP DECELERATIONS:

1. Call for help
2. Prepare family for transfer and call 911 and/or initiate maternal emergency transfer protocol
3. Change maternal position to lateral or knee chest
4. Exam to feel for prolapsed cord or assess dilation
5. Administer O2 at 10L via face mask
6. Terbutaline 0.25mg SQ
7. Large bore IV and bolus LR
8. Have records faxed if possible, RN to fax after patient leaves as last resort

Appendix C
SAMPLE PROTOCOL FOR TRANSPORT TO HOSPITAL

1. Notify transport service, indicate if emergent or non-emergent transfer
2. Notify the receiving hospital unit of the incoming transfer, reason for transfer, brief relevant clinical history, planned mode of transport, and expected time of arrival at the receiving facility.
3. Provide for continued acute care en route if indicated
4. Provide a verbal report, including details on current status and reason for transfer. The unit shall also provide a copy of the patient's medical record.

Appendix D

SAMPLE QUALITY ALERT TRIGGER LIST

NOTE: This is not an all-inclusive list. A sentinel event is any unexpected event occurring in the birth center or after intrapartum, postpartum, or neonatal transfer that involves death or serious physical or psychological injury or the risk of thereof. The phrase “or the risk thereof” includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome. Also to be reviewed are “near-miss” events – those that did not actually result in injury, illness, or death, but had the potential to do so.

- Apgar <7 at 5 minutes
- Cord prolapse
- Delay or difficulty with newborn resuscitation, including failure to follow NRP algorithm
- Emergent transfer of mother or newborn – intrapartum, postpartum, or neonatal
- Equipment malfunction or incorrect usage by staff member at the unit
- Injury to mother, newborn, support person, or staff occurring in unit or outside on unit property
- Intrapartum fetal death occurring after admission to unit
- Intrapartum fetal death occurring prior to admission to unit
- Manual removal of placenta at unit
- Maternal death during pregnancy, during labor, or up to 8-weeks postpartum, including after antepartum, intrapartum, or postpartum transfer from unit
- Maternal hemorrhage requiring D&C, blood products, hysterectomy, or other surgical intervention
- Maternal ICU admission, including after intrapartum or postpartum transfer or discharge from unit
- Maternal infection after unit birth
- Maternal resuscitation
- Maternal seizure at unit or after intrapartum or postpartum transfer to hospital
- Neonatal death, including after intrapartum or neonatal transfer from unit
- Newborn admission to NICU including after intrapartum or neonatal transfer from unit
- Serious newborn birth injury (fracture, laceration, hematoma)
- Supplies, equipment, or medication unavailable or not readily accessible when needed