Chapter 25
Obstetrics and Gynecology

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  - Labor
- Contents of the Childbirth Kit
- Predelivery Emergencies
  - Miscarriage
  - Seizure During Pregnancy
  - Vaginal Bleeding Late in Pregnancy
  - Trauma

Overview
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  - Predelivery Considerations
  - Precautions
  - Delivery Procedure
  - Initial Care of the Newborn
- Abnormal Deliveries and Complications
  - Prolapsed Cord
  - Breech Presentation
  - Limb Presentation
  - Multiple Births
  - Passage of Meconium
  - Premature Birth
**Reproductive Anatomy and Physiology**

- **Uterus**
  - Organ in which a fetus grows
  - Responsible for labor and expulsion of infant
- **Birth canal**
  - Vagina and lower part of the uterus
- **Vagina**
  - Lower part of the birth canal
- **Perineum**
  - Skin area between vagina and anus
  - Commonly torn during delivery

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**Reproductive Anatomy and Physiology**

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**Reproductive Anatomy and Physiology**

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Reproductive Anatomy and Physiology

- Fetus
  - Developing unborn baby
- Placenta
  - Fetal organ through which fetus exchanges nourishment and waste products during pregnancy
- Umbilical cord
  - Cord that is an extension of the placenta through which fetus receives nourishment while in the uterus
- Amniotic sac (bag of water)
  - Sac that surrounds the fetus inside the uterus

Reproductive Anatomy and Physiology

- Fetus at 35 days

Reproductive Anatomy and Physiology

- Fetus at 49 days
Reproductive Anatomy and Physiology
- Fetus after first trimester

Reproductive Anatomy and Physiology
- Fetus at 4 months

Labor
Labor

- The time and process beginning with the first uterine muscle contraction until delivery of the placenta

Labor

- The three stages of labor

- Crowning
  - Bulging-out of the vagina, which is opening as the fetus’ head or presenting part presses against it
  - Delivery is imminent if crowning is present
Labor

- Bloody show
  - Mucus and blood that may come out of the vagina as labor begins
  - Presenting part
    - The part of the infant/fetus that comes first—usually the head

Contents of a Childbirth Delivery Kit

- Surgical scissors
- Hemostats or cord clamps
- Umbilical tape or sterilized cord
- Bulb syringe
- Towels
- Gauze sponges (2)
- Sterile gloves
- One baby blanket
- Sanitary napkins
- Plastic bag

Predelivery Emergencies
Predelivery Emergencies

- Miscarriage (spontaneous abortion)
  - Emergency medical care
    - Size-up
    - Initial assessment
    - History and physical exam
    - Assess baseline vitals
    - Treatment based on signs and symptoms
    - Apply external vaginal pads
    - Bring fetal tissues to hospital
    - Support mother

Predelivery Emergencies

- Seizure during pregnancy
  - Emergency medical care
    - Size-up
    - Initial assessment
    - History and physical exam
    - Assess baseline vitals
    - Treatment based on signs and symptoms
    - Transport on left side

Predelivery Emergencies

- Vaginal bleeding late in pregnancy
  - Late pregnancy vaginal bleeding, with or without pain
  - Emergency medical care
    - Size-up
    - Initial assessment
    - History and physical exam
    - Assess baseline vitals
    - Treatment based on signs and symptoms
    - Apply external vaginal pads
    - Support mother
Predelivery Emergencies

- Transporting pregnant patients on their left side will reduce the pressure the fetus places on the circulatory system.

Predelivery Emergencies

- Trauma
  - Emergency medical care
    - Size-up
    - Initial assessment
    - History and physical exam
    - Assess baseline vitals
    - Treatment based on signs and symptoms
    - Transport on left side

Normal Delivery

- Predelivery considerations
  - It is best to transport an expectant mother, unless delivery is expected within a few minutes.
Normal Delivery

- Focused history to determine if delivery is imminent
  - Are you pregnant?
  - How long have you been pregnant?
  - Are there contractions or pain?
  - Any bleeding or discharge?
  - Is crowning occurring with contractions?
  - What is the frequency and duration of contractions?
  - Does the patient feel as if she needs to have a bowel movement with increasing pressure in the vaginal area?
  - Does she feel the need to push?
  - Rock-hard abdomen?

Normal Delivery

- Precautions
  - Use body substance isolation
  - Do not touch vaginal areas except during delivery and when your partner is present
  - Do not let the mother go to bathroom
  - Do not hold the mother’s legs together
  - Recognize your own limitations and transport even if delivery must occur during transport

Normal Delivery

- If delivery is imminent with crowning, contact medical direction for decision to commit to delivery on site. If delivery does not occur within 10 minutes, contact medical direction for permission to transport
Normal Delivery

- Delivery procedure
  - Apply gloves, mask, gown, eye protection for infection control precautions
  - Have mother lie with knees drawn up and spread apart

Normal Delivery

- Elevate buttocks with blankets or pillow
- Create sterile field around vaginal opening with sterile towels or paper barriers

Normal Delivery

- When the infant's head appears during crowning, place fingers on bony part of skull (not fontanelle or face) and exert very gentle pressure to prevent explosive delivery
- Use caution to avoid fontanelle
Normal Delivery

- If the amniotic sac does not break or has not broken, use a clamp to puncture the sac and push it away from the infant's head and mouth as they appear.

Normal Delivery

- As the infant's head is being born, determine if the umbilical cord is around the infant's neck; slip over the shoulder or clamp, cut and unwrap.

Normal Delivery

- After the infant's head is born, support the head, suction the mouth two or three times, and suction the nostrils.

- Use caution to avoid contact with the back of the mouth.
Normal Delivery

- As the torso and full body are born, support the infant with both hands
- As the feet are born, grasp the feet
- Wipe blood and mucus from mouth and nose with sterile gauze; suction mouth and nose again

Normal Delivery

- Wrap infant in a warm blanket and place on its side, head slightly lower than trunk
- Keep infant level with vagina until the cord is cut

Normal Delivery

- Assign partner to monitor the infant and complete assessment of newborn
- Clamp the cord and cut between the clamps
Normal Delivery

- Observe for delivery of placenta while preparing mother and infant for transport
- When delivered, wrap placenta in towel and put in plastic bag; transport placenta to hospital with mother

Normal Delivery

- Place sterile pad over vaginal opening, lower mother’s legs, help her hold them together
- Record time of delivery and transport mother, infant, and placenta to hospital
- Vaginal bleeding following delivery (up to 500 cc of blood loss) is normal
- A 500-cc blood loss is well tolerated by the mother following delivery

Normal Delivery

- With excessive blood loss, massage the uterus
  - Hand with fingers fully extended
  - Place on lower abdomen above pubis
  - Massage (knead) over area
Normal Delivery

- If bleeding continues
  - Check massage technique and transport immediately
  - Provide oxygen and ongoing assessment

- Regardless of estimated blood loss, if mother appears in shock (hypoperfusion), treat as such and transport prior to uterine massage. Massage en route

Newborn Resuscitation

- Position, dry, wipe, and put newborn in blanket, and cover the head
- Repeat suctioning
- Assessment of infant—normal findings
  - Appearance—color: no central (trunk) cyanosis
  - Pulse—greater than 100 beats/min
  - Grimace—vigorous and crying
  - Activity—good motion in extremities
  - Breathing effort—normal, crying
**Initial Care of the Newborn**

- Stimulate newborn if not breathing
  - Flick soles of feet
  - Rub infant's back

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**Newborn Resuscitation**

- Resuscitation of the newborn follows the inverted pyramid; after assessment, if signs and symptoms require either cardiac or pulmonary resuscitation, follow the steps of the inverted pyramid

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**Newborn Resuscitation**

- Breathing effort
  - If shallow, slow, or absent, provide artificial ventilations
    - 60 breaths/min
    - Reassess after 30 seconds
    - If no improvement, continue artificial ventilations and reassessments
Newborn Resuscitation

- **Heart rate**
  - If less than 100 beats/min, provide artificial ventilations
    - 60 breaths/min
    - Reassess after 30 seconds
    - If no improvement, continue artificial ventilations and reassessments
  - If less than 80 beats/min and not responding to bag-valve-mask, start chest compressions
  - If less than 60 beats/min, start compressions and artificial ventilations

Newborn Resuscitation

- **Color**
  - If central cyanosis is present with spontaneous breathing and an adequate heart rate, administer free-flow oxygen
    - Administer oxygen (10-15 L/min) using oxygen tubing held as close as possible to the newborn’s face

Abnormal Deliveries

- Most infants are born in the head-first or cephalic position
- Abnormal delivery situations
  - Prolapsed cord
  - Breech presentation
  - Limb presentation
  - Multiple births
  - Passage of meconium
  - Premature birth
Abnormal Deliveries—Prolapsed Cord

- Condition in which the cord presents through the birth canal before delivery of the head; presents a serious emergency that endangers the life of the unborn fetus
  - Size-up
  - Initial assessment
  - Mother should have high-flow oxygen
  - History and physical exam
  - Assess baseline vitals

Abnormal Deliveries—Prolapsed Cord

- Treatment based on signs and symptoms
  - Position mother with head down or buttocks raised, using gravity to lessen pressure in birth canal
  - Insert sterile gloved hand into vagina, pushing the presenting part of the fetus away from the pulsating cord
  - Rapidly transport, keeping pressure on presenting part and monitoring pulsations in the cord

Abnormal Deliveries—Breech Presentation

- Breech presentation occurs when the buttocks or lower extremities are low in the uterus and will be delivered first
- Newborn is at great risk for delivery trauma; prolapsed cord is more common; transport immediately on recognition of breech presentation
- If delivery does not occur within 10 minutes, take precautions to avoid suffocation
Abnormal Deliveries—Breech Presentation

- Emergency medical care
  - Immediate rapid transportation on recognition
  - Place mother on oxygen
  - Place mother in head-down position with pelvis elevated

The infant cannot be delivered in this position. Transport immediately!

Abnormal Deliveries—Limb Presentation

- Occurs when a limb of the infant protrudes from the birth canal. Is more commonly a foot when infant is in breech presentation
  - Immediate rapid transportation on recognition
  - Place mother on oxygen
  - Place mother in head-down position with pelvis elevated

Airway management is vital for these infants.

Abnormal Deliveries—Multiple Births

- Be prepared for more than one resuscitation
- Call for assistance
Abnormal Deliveries—Passage of Meconium

- Meconium is amniotic fluid that is greenish or brown-yellow rather than clear. The presence of meconium is an indication of possible fetal distress during labor
- Do not stimulate infant before suctioning oropharynx
- Suction
- Maintain airway
- Transport as soon as possible

Abnormal Deliveries—Premature Birth

- Premature birth is defined as delivery at <37 weeks of gestation or newborn weight <2.5 kg (3.5 lb)
- Premature infants are always at risk for hypothermia
  - Keep infant warm (dry and wrapped in blanket)
- Newborn usually requires resuscitation; should be done unless physically impossible
  - Suction
  - Monitor umbilical cord for bleeding
  - Administer free-flow oxygen to mother
  - Transport to facility equipped for neonatal resuscitation and care

Summary

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Summary

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