Obstetric and Gynecologic Emergencies

Introduction to Emergency Medical Care

34
OBJECTIVES

34.1 Define key terms introduced in this chapter. Slides 17, 22, 25, 34, 36, 39, 51, 60, 65–69, 74–75

34.2 Identify the anatomy of the female reproductive system and fetal development. Slides 16–19

34.3 Explain the physiology of pregnancy. Slide 21

continued
34.4 Explain and describe measures to prevent or correct supine hypotensive syndrome. Slide 22
34.5 Describe the three stages of labor. Slides 25–27
34.6 Discuss the assessment of a patient in labor, including history and physical examination. Slides 31–33
OBJECTIVES

34.7  Discuss how to decide if delivery is imminent or if the patient in labor should be transported to a medical facility for delivery. Slides 33–34

34.8  State findings that may indicate the need for neonatal resuscitation. Slides 35–36
34.9 Discuss the role of the EMT in normal childbirth, including preparation and delivery. Slides 39–43, 45–49

34.10 Describe the normal steps in care of the neonate. Slides 51–53

continued
OBJECTIVES

34.11 Explain the indications and procedures for neonatal resuscitation, following the inverted pyramid order of priorities. Slides 55–56

34.12 Discuss after-delivery care of the mother, including delivery of the placenta, controlling vaginal bleeding, and providing comfort to the mother. Slides 59–62

continued
34.13 Describe and discuss the special care required for complications of delivery, including: breech presentation, limb presentation, prolapsed umbilical cord, multiple birth, premature birth, and meconium. Slides 65–70
OBJECTIVES

34.14 Describe and discuss the special care required for emergencies in pregnancy, including: excessive prebirth bleeding, ectopic pregnancy, seizures in pregnancy, miscarriage and abortion, trauma in pregnancy, stillbirths, and accidental death of a pregnant woman. Slides 72–81

continued
34.15 Describe and discuss the special care required for gynecological emergencies, including: vaginal bleeding, trauma to the external genitalia, and sexual assault. Slides 85–87
MULTIMEDIA

• Slide 29  Information About Childbirth Video
• Slide 82  Information About Preeclampsia Video
• Slide 83  Ectopic Pregnancy Video
CORE CONCEPTS

• Anatomy and physiology of the female reproductive system
• Physiologic changes in pregnancy
• Care of the mother and baby during labor and childbirth
• Care of the neonate
• Post-delivery care of the mother

continued
• Complications of delivery
• Emergencies in pregnancy
• Gynecological emergencies
Topics

• Anatomy and Physiology
• Physiologic Changes in Pregnancy
• Labor and Delivery
• Patient Assessment
• Normal Childbirth
• The Neonate
• Care After Delivery

continued
Topics

- Childbirth Complications
- Gynecological Emergencies
Anatomy and Physiology
Female Genitalia

- **External**
  - Labia
  - Perineum
  - Mons pubis

- **Internal**
  - Vagina
  - Ovaries
  - Fallopian tubes
Female Reproductive Cycle

• Menstruation
  – Stimulated by estrogen and progesterone
  – Ovaries release ovum
  – Uterus walls thicken
  – Fallopian tubes move egg (peristalsis)
  – Uterine walls expelled (bleeding 3–5 days)

continued
Female Reproductive Cycle

• Fertilization
  – Sperm reaches ovum
  – Ovum becomes embryo
  – Embryo implants in uterus
  – Fetal stage begins
Physiologic Changes in Pregnancy
Changes in the Reproductive System

- Amniotic sac
- Umbilical cord
- Placenta
- Uterus
- Cervix
- Rectum
- Bladder
- Pubic bone
- Vagina
Supine Hypotensive Syndrome

- Placenta, infant, and amniotic fluid total 20–24 lbs.
- When supine, mass compresses inferior vena cava
- Cardiac output decreases
- Dizziness and drop in blood pressure
Think About It

- How does the development of the fetus affect other body systems?
Labor and Delivery
First Stage
Second Stage
Third Stage
Think About It

- Why is childbirth such an exhausting ordeal for the mother?
Information About Childbirth Video

Click [here](#) to view a video on the subject of childbirth.
Patient Assessment
Inside: Increasing blood volume
Outside: Pink coloration to skin

Inside: Increased O₂ demand/
Decreased lung capacity
Outside: Shortness of breath
    common

Inside: Fetus growing/
Uterus enlarging
Outside: Belly enlarging

Inside: Growing uterus
    displaces GI tract
Outside: Nausea, vomiting,
    and heartburn

Inside: Increasing heart rate
Outside: Faster pulse

Inside: Ligaments stretched,
carrying extra weight of fetus
Outside: “Swayback” posture, back pain
Assessing the Woman in Labor

- Assessment focused on imminent delivery
- Name, age, expected due date
- First pregnancy?
- Seen doctor about pregnancy?
- When did labor pains start?

continued
Assessing the Woman in Labor

- Feel the urge to push?
- Examine for crowning
- Feel for uterine contractions
- Take vital signs
Crowning
Findings Indicating Possible Need for Resuscitation

- No prior prenatal care
- Premature delivery
- Labor induced by trauma
- Multiple births

continued
Findings Indicating Possible Need for Resuscitation

• History of pregnancy problems (especially placenta previa and breech presentation)
• Labor induced by drug use (especially narcotics) and alcohol
• Meconium staining when water breaks
Think About It

• How can you get necessary information from a patient who may be having uncontrolled pain from contractions?
Normal Childbirth
Cephalic Delivery
Imminent Delivery

- Control scene
- Proper PPE
- Place mother on bed, floor, or ambulance stretcher
- Remove clothing obstructing vagina
- Position assistant and OB kit
Preparing Mother for Delivery
Preparing the OB Kit
Off-Duty Delivery Supplies

• Clean sheets and towels
• Heavy, flat twine or new shoelaces
• Towel or plastic bag (for placenta)
• Clean, unused rubber gloves and eye protection
Think About It

• Are there legal/moral/ethical concerns for an off-duty delivery?
Delivering the Baby

continued
Delivering the Baby

continued
Delivering the Baby

continued
Delivering the Baby
The Neonate
Assessing the Neonate
Keeping the Baby Warm

- Heat retention is high priority
- Dry baby
- Discard wet blankets
- Wrap baby in a dry blanket (infant swaddler or “space blanket”)
- Cover head
Cutting the Umbilical Cord
Think About It

• Why is it so important to stimulate the baby?
Neonatal Resuscitation

- Drying, Warming, Positioning, Suction, Tactile Stimulation
- Oxygen
- Bag-Mask Ventilation
- Chest Compressions
- Intubation
- Medications

continued
Neonatal Resuscitation
Think About It

• What are the first steps in neonatal resuscitation?
• What is central cyanosis?
• When is artificial ventilation required, and what is the rate of artificial ventilations?
Care After Delivery
Caring for the Mother

- Mother at risk for serious bleeding, infection, emboli
- Deliver placenta
- Control vaginal bleeding
- Comfort
Delivering the Placenta

- Afterbirth: placenta with umbilical cord, amniotic sac membranes, and tissues lining uterus
- Placental delivery starts with labor pains
- May take 30 minutes or longer
- Begin transport in 10 minutes (do not wait to deliver placenta)
Controlling Vaginal Bleeding
Providing Comfort to the Mother

- Take vital signs frequently
- Acts of kindness will be appreciated and remembered
- Wipe face and hands with damp washcloth
- Replace blood-soaked sheets and blankets
Think About It

• What are your responsibilities in caring for the mother?
• What is considered to be the usual blood loss?
• Give examples of acts of kindness toward the mother.
Childbirth Complications
Breech Presentation
Limb Presentation
Prolapsed Umbilical Cord
Multiple Birth

- Have appropriate resources
- Clamp or tie cord of first baby
- Assist with delivery of second baby
- Placenta and cord care are same as single delivery
- Keep babies and mother warm
Premature Birth

- Keep baby warm
- Keep airway clear
- Provide ventilations and chest compressions
- Watch umbilical cord for bleeding
- Oxygen (blow by)
- Call ahead to emergency department
Meconium

• Don’t stimulate infant before suctioning
• Suction mouth, then nose
• Maintain open airway
• Provide ventilations and/or chest compressions
Think About It

• Why is it important to have your partner or another person (birthing coach or other adult acceptable to the mother) observing as you help the mother through childbirth?
Emergencies in Pregnancy

- Excessive prebirth bleeding
- Ectopic pregnancy
- Seizures in pregnancy
- Miscarriage and abortion
- Trauma in pregnancy
- Stillbirths
- Accidental death of pregnant woman
Excessive Prebirth Bleeding

- Main sign is unusually profuse bleeding
- Abdominal pain may or may not be felt
- Assess for signs of shock
- High-concentration oxygen and transport
- Place sanitary napkin over vagina

continued
Excessive Prebirth Bleeding

ABRUPTIO PLACENTAE

Uterine bleeding

Placenta

Bleeding may be minimal
Ectopic Pregnancy

Locations of ectopic pregnancy

- Fallopian tube (90%)
- Ovary
- Abdomen (6%)
- Outside wall of uterus
- Cervix
Seizures in Pregnancy

- Existing preeclampsia
- Elevated blood pressure
- Excessive weight gain
- Excessive swelling to face, ankles hands, and feet
- Altered mental status or headache
Miscarriage and Abortion

• Cramping, abdominal pains
• Bleeding: moderate to severe
• Discharge of tissue and blood from vagina
Trauma in Pregnancy

- Pulse 10–15 beats faster than non-pregnant women
- Blood loss may be 30%–35% before signs/symptoms appear
- Ask patient if she received blows to abdomen
Trauma in Pregnancy

RUPTURED UTERUS

- Placenta
- Abdominal wall
- Torn edge
- Uterus
- Bleeding
Stillbirths

- Do not resuscitate if it is obvious the baby died some time before birth
- Resuscitate if baby is born in cardiac or respiratory arrest
- Prepare to provide life support
- Emotional support for family
Accidental Death of Pregnant Woman

- Chance to save unborn child
- Begin CPR on mother immediately
- Continue CPR until emergency cesarean section can be performed or you are relieved in emergency department
Information About Preeclampsia Video

Click here to view a video on the subject of preeclampsia.
Ectopic Pregnancy Video

Click [here](#) to view a video on the subject of ectopic pregnancy.
Gynecological Emergencies
Vaginal Bleeding

- Treat as potential life threat
- Check for associated abdominal pain
- Monitor for hypovolemic shock
Trauma to External Genitalia

- Observe MOI
- Look for signs of severe blood loss and shock
- Consider additional internal injuries
Sexual Assault

• Treat immediate life threats
• Do not disturb potential evidence
• Examine genitals only if severe bleeding is present
• Discourage bathing, voiding, or cleansing wounds
• Fulfill mandated reporting requirements
Think About It

• When arriving at a crime scene, what are the key things to keep in mind as you respond?
Chapter Review
Chapter Review

• Although birth is a natural process that usually takes place without complications, involvement of EMS usually indicates something unusual has happened.

• The EMT’s role at a birth is generally to provide reassurance and to assist the mother in the delivery of her baby.

continued
Chapter Review

• During normal delivery, determine if there should be immediate transport or if birth is imminent and will take place at the scene.
• If birth is to take place at the scene, have equipment ready and appropriate resources on hand. Always be prepared for resuscitation.

continued
Chapter Review

• Complications of delivery are a true emergency. Be prepared to initiate rapid transport.

• There may also be pre-delivery emergencies or emergencies associated with pregnancy that you must be prepared to treat.

continued
Chapter Review

- Stillbirth and death of the mother and sexual assault are difficult emergencies the EMT is occasionally called upon to manage. Emotional care for these issues may be as important as medical care.
Remember

- Female reproductive organs present new anatomy and specific potential emergencies. EMTs should recognize the different anatomy and be prepared to address reproductive emergencies.
- A growing fetus creates massive change to the mother’s body. All systems undergo major alterations.
Remember

• Assessment of the woman in labor is designed to predict imminent delivery and to recognize likely resuscitation.
• The urge to push and crowning indicate imminent delivery. Transport typically should be deferred for a home delivery.
Remember

• Lack of prenatal care, premature labor, multiple gestation, and underlying conditions indicate a likelihood of neonatal resuscitation.

• Childbirth requires a high level of personal protective equipment.
Remember

• The most important aspect of care for a neonate is keeping the baby warm. Resuscitation may be indicated by assessing breathing and heart rate.

• After delivery there are two patients to care for: the infant and the mother.

continued
Remember

• EMTs should be familiar with the pathophysiology and emergency treatment of the various complications of childbirth.
• Care of the sexual assault patient must include medical, legal, and psychological considerations.
Questions to Consider

• What is the difference between abruptio placenta and placentae previa?
• How do you care for a prolapsed cord?
• What do you do if the bag of water is still intact during delivery?
Critical Thinking

• You are called to a pregnant woman in labor. During your evaluation you find that it is the woman’s first pregnancy, the baby’s head is not crowning, and contractions are 10 minutes apart.
Critical Thinking

• You ask the mother if she feels the need to move her bowels, and she says no. Do you prepare for delivery at the scene? Or do you transport the mother to the hospital?
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