CHAPTER 32

Obstetric and Gynecologic Emergencies

HANDOUT 32-1: Evaluating Content Mastery  Student’s Name

EVALUATION

CHAPTER 32 QUIZ

Write the letter of the best answer in the space provided.

_____ 1. The placenta, umbilical cord, and tissues from the amniotic sac are the materials that are usually delivered after the baby and are called the:

A. afterbirth.  C. bloody show.
B. womb.  D. postpartum.

_____ 2. Delivery of the baby may be imminent if contractions last ______ and are ______ apart.

A. 1–2 minutes; 6–8 minutes
B. 2–3 minutes; 5–6 minutes
C. 30 seconds–1 minute; 2–3 minutes
D. 45 seconds–1½ minutes; 3–4 minutes

_____ 3. If you find yourself assisting a delivery without the standard OB kit, you may tie off the umbilical cord using:

A. thread.  C. light string.
4. If this is the woman’s first delivery, she is not straining, and there is no crowning:

A. birth will probably occur too soon for transport.
B. you will probably have time to transport to a medical facility for delivery.
C. birth will probably occur during transport in the ambulance.
D. a surgical delivery will probably be necessary.

5. If, during transport, crowning occurs:

A. prepare to deliver the baby, and have your driver expedite transport.
B. continue transport and request an ALS rendezvous.
C. stop the ambulance, and have your partner help prepare for delivery.
D. have the mother hold her legs tightly together to delay delivery.

6. If the mother gets dizzy and has a drop in blood pressure when she is lying on her back, the condition is called:

A. supine hypotensive syndrome. C. eclampsia.

7. You should clamp and cut the umbilical cord:

A. as soon as the baby is delivered.
B. only if it is wrapped around the baby’s neck.
C. after the placenta is delivered.
D. after the baby is breathing on her own.

8. Which of the following statements is true regarding the afterbirth?

A. Pull on the umbilical cord to encourage delivery of the placenta.
B. The afterbirth may take more than 30 minutes to deliver.
C. The placenta may be discarded as soon as it’s delivered.

D. Afterbirth tissues remaining in the uterus pose no serious problem.

_____ 9. To control vaginal bleeding after birth:

A. massage the uterus.

B. have the mother squeeze her legs together.

C. pack the vagina with gauze dressings.

D. don’t allow the mother to nurse the baby.

_____ 10. If the umbilical cord presents first during delivery:

A. provide the mother with oxygen, and transport immediately because the problem can be handled only at the hospital.

B. keep pressure off the cord by placing your gloved hand in the vagina, and transport immediately.

C. immediately clamp and cut the cord.

D. place a mask with high-concentration oxygen at the vaginal opening.

_____ 11. During a normal pregnancy, the baby, or fetus, grows in the mother’s:

A. cervix. C. uterus.

B. vagina. D. placenta.

_____ 12. Composed of both maternal and fetal tissues, the organ that serves as an exchange area between mother and fetus is the:

A. cervix. C. uterus.

B. vagina. D. placenta.

_____ 13. The fetus “floats” in a “bag of waters” containing:
A. placental fluid. C. umbilical fluid.
B. amniotic fluid. D. CSF fluid.

_____ 14. The nine-month period of pregnancy is divided into:
A. quarters. C. trimesters.
B. months. D. halves.

_____ 15. A delivery in which the baby’s buttocks present first at the vaginal opening is called a:
A. breech presentation. C. normal presentation.
B. cephalic presentation. D. prolapsed presentation.

_____ 16. The majority of deliveries the EMT will assist with will be:
A. breech presentation. C. prolapsed presentation.
B. cephalic presentation. D. abruptio presentation.

_____ 17. The sign of imminent delivery that occurs when the presenting part of the baby first bulges from the vaginal opening is called:
A. staining. C. placentae preview.
B. a bloody show. D. crowning.

_____ 18. The third stage of labor ends with:
A. the birth of the baby.
B. the full dilation of the cervix.
C. the delivery of the afterbirth.
D. the entry of the baby into the birth canal.

_____ 19. The second stage of labor begins with:
A. the start of regular contractions.
B. the dilation of the cervix.

C. the delivery of the afterbirth.

D. when the baby enters the birth canal.

20. Meconium staining may be an indication of:

A. multiple births. C. fetal distress.

B. a premature birth. D. bleeding in the uterus.
Read the following real-life situation. Then answer the questions that follow.

Jamie Kruse is pregnant, and her delivery date was several days ago. She has delivered three other children. She was experiencing back pain all evening before going to bed. About 3:30 A.M., she is awakened by abdominal cramps and realizes her clothes and bed are wet. She wakes her husband, Jim, telling him it’s time to go to the hospital. Her labor quickly develops, and soon her contractions are about one minute long and coming every two minutes. Before Jim can get dressed and start the car, Jamie tells him she doesn’t think she can make it to the hospital before the baby is born. She lies back on the bed, and Jim calls 911.

An anxious Jim meets the ambulance in front of his house about seven minutes later. Upon entering the bedroom, Bob and Phil, both EMTs, are greeted by Jamie, who is still lying supine on the bed. Bob introduces himself and Phil as they don Standard Precautions (BSI) equipment. Bob notes that Jamie is having a contraction and her “water broke.” Jamie informs Bob that her contractions are coming about every two minutes, and she feels as though she needs to move her bowels. Phil times her next contraction, and it lasts about one minute.

Jamie tells the EMTs that this is her fourth child, it is about a week overdue, and the pregnancy has been normal up to now. Bob explains that he needs to look for crowning, and Jim assists Jamie in removing clothing. Bob notes crowning of the baby’s head, so he and Phil prepare to deliver the baby. They open their OB kit and place the drapes under Jamie’s buttocks, on her abdomen, and on her legs. Phil places a pillow under Jamie’s buttocks to elevate her hips. Bob instructs Jim to stay with Jamie at the head of the bed and encourage her to “pant.” Bob positions
himself at the foot of the bed while Phil takes Jamie’s vitals. As the baby’s head begins to appear, Bob positions his hands at the vaginal opening. He places his hand on the baby’s head, gently, to prevent an “explosive” delivery. As the head delivers, Bob notes meconium staining of the amniotic fluid. As soon as the head delivers, Bob uses a bulb syringe to quickly suction the mouth and nose. As the baby’s body is delivered, Bob supports the head, the shoulders, and the rest of the body as it appears. The baby begins crying as Bob repeats the suctioning. Bob keeps the baby at about the same level as Jamie’s vagina, clamps and cuts the umbilical cord, and wraps the infant in a warm blanket. Phil writes the exact time of birth in his notepad. With the baby and mother doing well, Bob and Phil prepare for a calm, careful transport to the hospital.

1. What signs led to Bob’s decision to deliver the baby at the house instead of transporting?

2. What Standard Precautions (BSI) equipment would be appropriate for a delivery at home?

3. Bob noted meconium staining during the delivery. What is the cause of this, and what complications might this cause? What can the EMT do at the time of delivery to help prevent complications?

4. Why did Bob suction the mouth of the baby first?

5. Why did Bob keep the baby at the same level as the mother’s vagina?

6. What signs did Bob look for that told him it was appropriate to cut the umbilical cord?
1. The placenta, umbilical cord, membranes of the amniotic sac, and some of the tissues lining the uterus are called the _______________ and may take up to _______________ _______________ to deliver.

2. To control vaginal bleeding after delivery of the baby and placenta, you should _______________ the uterus.

3. To care for a breech presentation, place the mother in a(n) _______________ - _______________ position with the _______________ elevated.

4. With a limb presentation, _______________ _______________ is essential for the baby’s survival.

5. An infant that weighs less than 5½ pounds at birth or is born before the 37th week of pregnancy is called a(n) _______________ _______________ baby.

6. A life-threatening condition in which the placenta separates from the uterine wall is _______________ _______________.

7. _______________ _______________ is a condition in which the placenta is formed in an abnormal location that will not allow normal delivery of the fetus.

8. Implantation of the fertilized egg in an oviduct, the cervix, or in the abdominopelvic cavity is called a(n) _______________ _______________.

9. Seizures in pregnancy, usually associated with high blood pressure and swelling of the extremities, are called _______________.

CHAPTER 32 REVIEW

Write the word or words that best complete each sentence in the space provided.

HANDOUT 32-3: Reinforcing Content Mastery  Student’s Name
10. When the fetus and placenta deliver before the 28th week of pregnancy, it is called a(n) __________________. When this happens on its own, it is called a(n) __________________ ____________________.  
11. The mother’s __________________ is a muscular organ in which the fetus grows.  
12. Blood from the fetus is sent through blood vessels in the __________________ to the placenta, where the blood picks up nourishment from the mother.  
13. During pregnancy, changes in the woman’s body include __________________ blood volume, __________________ cardiac output, and __________________ heart rate.  
14. The first stage of labor starts with __________________ and gradual __________________ of the cervix and ends when the cervix is fully __________________.  
15. The third stage of labor begins when the __________________ is __________________ and ends with the delivery of the __________________.  
16. Amniotic fluid that is greenish or brownish-yellow in color is called __________________.  
17. When suctioning a newborn with a bulb syringe, suction the __________________ first, then the __________________, remembering to compress the bulb syringe _________ placing it in the baby.  
18. If a newborn’s ventilation rate is less than __________________ beats per minute, provide __________________ __________________ at a rate of 40 to 60 per minute.  
19. When clamping the umbilical cord, place the first clamp, or tie, about __________________ from the baby’s body and place the second
about ___________________ ___________________ from the baby.

20. It is critical to keep a newborn baby ___________________. 
OBSTETRIC AND GYNECOLOGIC EMERGENCIES LISTING

Complete the following lists.

1. List at least five items found in the standard obstetric kit.

2. List at least five things to consider when evaluating a mother in labor in order to make a transport decision.

3. List the steps in the general procedure for umbilical cord care.
4. List at least three methods of controlling vaginal bleeding after birth.

5. List the steps in the emergency care of a woman with an ectopic pregnancy.
OBSTETRIC AND GYNECOLOGIC EMERGENCIES MATCHING

Write the letter of the term in the space next to the appropriate description.

A. Supine hypotensive syndrome
B. Breech presentation
C. Prolapsed umbilical cord
D. Limb presentation
E. Multiple birth
F. Premature birth
G. Meconium
H. Placenta previa
I. Abruptio placentae
J. Ectopic pregnancy
K. Eclampsia
L. Abortion
M. Stillborn
N. Pre-eclampsia

1. When the placenta is formed in an abnormal location that will not allow a normal delivery of the fetus
2. Complication of pregnancy in which the woman retains large amounts of fluids and has hypertension
3. Any newborn weighing less than $5\frac{1}{2}$ pounds or born before the 37th week

4. When the umbilical cord presents first and is squeezed between the vaginal wall and the baby’s head

5. When the baby is born dead

6. Dizziness and a drop in blood pressure caused by the baby’s compressing the inferior vena cava when the woman is supine

7. A condition in which the placenta separates from the uterine wall, causing excessive prebirth bleeding

8. Spontaneous or induced termination of pregnancy

9. When the baby appears buttocks or both legs first during birth

10. A severe complication of pregnancy that produces seizures and coma

11. When implantation of the fertilized egg is not in the body of the uterus

12. When an infant’s limb protrudes from the vagina before any other body part

13. Amniotic fluid that is greenish or brownish-yellow rather than clear

14. When more than one baby is born during a single delivery
Chapter 32 Answer Key

HANDOUT 32-1: Chapter 32 Quiz

1. A
2. C
3. D
4. B
5. C
6. A
7. D
8. B
9. A
10. B
11. C
12. D
13. B
14. C
15. A
16. B
17. D
18. C
19. D
20. C
**HANDOUT 32-2: In the Field**

1. This is Jamie’s fourth child, her “bag of waters” broke, her contractions were lasting one minute and coming every two minutes. She felt a need to move her bowels, and crowning is observed.

2. Standard Precautions (BSI) equipment for a delivery should include gloves, mask, protective eyewear, and a gown to protect clothing.

3. Meconium is the material expelled from the bowels of a fetus before delivery. It usually indicates either fetal or maternal distress. In this case, it may also be the result of the birth’s being overdue. When meconium staining is seen, it is important for the EMT to suction the mouth and nose of the baby as soon as the head is delivered to prevent the baby from aspirating the material into her lungs. This can lead to pneumonia or other infections.

4. The mouth of a newborn should be suctioned first. Infants are obligate nose breathers. If the nose is suctioned first, the baby may attempt to take a breath. Any material in the baby’s mouth would then be aspirated into the lungs.

5. It is important to keep the baby at the level of the mother’s vagina before the umbilical cord is cut so that blood from the baby will not return into the placenta. For this reason, do not place the baby on the mother’s abdomen until the cord is clamped and cut.

6. The umbilical cord can be clamped and cut when the baby begins breathing on her own, and after the cord has stopped “pulsating.”

**HANDOUT 32-3: Chapter 32 Review**

1. afterbirth; 30 minutes

2. massage

3. head-down; pelvis
4. rapid transport
5. premature
6. abruptio placentae
7. Placenta previa
8. ectopic pregnancy
9. eclampsia
10. abortion; spontaneous abortion
11. uterus
12. umbilical cord
13. increased; increased; increased
14. regular contractions; dilation; dilated
15. baby; born; afterbirth
16. meconium staining
17. mouth; nose; before
18. 100; artificial ventilations
19. 10 inches; 7 inches
20. warm

HANDOUT 32-4: Obstetric and Gynecologic Emergencies Listing

1. Any five of the following:
   Several pairs of sterile surgical gloves
   Towels or sheets for draping the mother
   Gauze pads (2 × 2 or 4 × 4) for wiping and drying the baby
1 rubber bulb syringe
Cord clamps and/or umbilical cord tape
Surgical scissors or scalpel
1 blanket to wrap the baby in
Several sanitary napkins and plastic bag(s)

2. Any five of the following:
   Mother’s name, age, and expected due date
   Is this her first pregnancy?
   How long has she been having labor pains, how often, and has her “bag of waters” broken?
   Has she had a “bloody show”? 
   Is she straining or feeling as though she needs to move her bowels?
   Is there any crowning?
   Feel for uterine contractions.
   Take vital signs.

3. The steps are the following:
   Keep the infant warm.
   Use the sterile clamps or umbilical tape from the obstetric kit.
   Apply one clamp about ten inches from the baby.
   Apply the second clamp about seven inches from the baby.
   Cut the cord between the clamps with sterile scissors or scalpel.
   Be careful when moving the baby so that no trauma is caused to the clamped cord.

4. Any three of the following:
   Place a sanitary napkin over the mother’s vaginal opening.
Have the mother lower her legs and keep them together.

Massage the uterus.

Let the mother nurse the baby.

5. Steps include:

Consider the need for immediate transport.

Position the patient for shock.

Care for shock.

Provide high-concentration oxygen by nonrebreather mask.

Do not give the patient anything by mouth.

**HANDOUT 32-5: Obstetric and Gynecologic Emergencies Matching**

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CHAPTER 33

Pediatric Emergencies

HANDOUT 33-1: Evaluating Content Mastery   Student’s Name

EVALUATION

CHAPTER 33 QUIZ

Write the letter of the best answer in the space provided.

_____ 1. The most common cause of seizures in pediatric patients is:
   A. fever.    C. head injuries.
   B. epilepsy. D. shock.

_____ 2. The leading cause of death in children is:
   A. fever.    C. trauma.

_____ 3. The most common injuries sustained by children who are struck by a car while riding a bike are:
   A. leg, hand, and back.
   B. head, spinal, and abdominal.
   C. head, spinal, and lower extremity.
   D. upper extremity, lower extremity, and abdominal.

_____ 4. The most common cause of hypoxia in the unconscious pediatric head injury patient is:
   A. the tongue.    C. intercranial pressure.
B. intracranial pressure. D. Kussmaul’s respirations.

5. Of the following, which is considered to be a valuable resource to the EMT when providing care to a child with special health-care needs?
   A. The patient’s doctor
   B. A technical manual for medical equipment
   C. Medical direction
   D. The patient’s parents

6. One complication that pediatric burn patients are especially susceptible to is:
   A. hyperthermia. C. hypothermia.
   B. febrile seizure. D. hypoxia.

7. When you are gathering information on the scene and you suspect child abuse, you should:
   A. directly indicate your suspicions to the parents.
   B. talk to the child only in the presence of the parents or caregivers.
   C. not ask the child if he has been abused.
   D. immediately leave the scene and call for police backup.

8. Central lines are intravenous lines that are placed:
   A. in the center of the extremities. C. close to the heart.
   B. in the dermis. D. in the groin.

9. The proper method of inserting an oropharyngeal airway in a pediatric patient is:
   A. with the tip toward the roof of the mouth, then rotate 180°.
B. with a half turn with curve toward the check, then rotate.

C. in the position of function (as it will sit in the mouth).

D. only after a nasal airway has been inserted.

_____ 10. The range of breaths per minute for providing artificial ventilation for children age 1 to puberty is:


_____ 11. The A of the left side of the pediatric assessment triangle (PAT) stands for:

A. assessment.  C. appearance.

B. airway.  D. alertness.

_____ 12. Children develop hypothermia more easily than adults because of their:

A. lower metabolisms.

B. slower heart rates.

C. smaller lung capacity.

D. larger surface area in proportion to body mass.

_____ 13. Which of the following is NOT a sign of croup?

A. High fever  C. Loud “seal bark” cough

B. Some hoarseness  D. Paleness with cyanosis

_____ 14. Which of the following is NOT a sign of epiglottitis?

A. Painful swallowing  C. Tripod position

B. Low fever  D. Sniffing position
15. For a child in early respiratory distress, you would provide oxygen via:

A. pediatric nonrebreather mask.  C. Venturi mask.

B. nasal cannula.  D. none of the above.
HANDOUT 33-2: Reinforcing Content Mastery  Student’s Name

REINFORCEMENT

IN THE FIELD

*Review the following real-life situations. Then answer the questions that follow.*

A. You are dispatched to a home where you find a 10-month-old child in his mother’s arms. The parents say the child is lethargic. He is breathing at a rate of 46 times a minute, and his pulse rate is 180. His skin is hot to the touch, and his cheeks are flushed. The mother states that the child has been sick for three days. This afternoon he became worse. The mother adds that the child has been vomiting and has had diarrhea for two days.

1. What is likely to be the cause of the problem?
2. What emergency care would you provide?

B. You are called to the home of a frantic mother of a 4-year-old girl. Her daughter is normally active, and this morning everything was normal. In the afternoon, however, the girl developed a high fever. Now she says it hurts to swallow. You note that she is drooling excessively as she sits in her mother’s lap. She sits upright but is leaning forward with her chin thrust out and her mouth wide open.

1. What is likely to be the cause of the problem?
2. What emergency care would you provide?

C. You are at the home of a family with an 11-month-old child. The father explains he called because the child had a seizure that lasted about a minute. The child appears flushed. You touch her skin, which is extremely hot to the touch. The father says the child has been running a fever all day. He put her to bed about an hour ago. About 10 or 15 minutes ago he heard a crash in the infant’s room and went to investigate. When he entered, the child was convulsing in the crib.
That’s when he called 911.

1. What is likely to be the cause of the problem?

2. What emergency care would you provide?
CHAPTER 33 REVIEW

Write the word or words that best complete each sentence in the space provided.

1. Do not use _________________________ _________________________ to cool a pa-
   tient with high fever because it can be absorbed in toxic amounts.

2. Fever, epilepsy, infections, poisoning, hypoglycemia, trauma, and decreased levels of ox-
   ygen can bring on _________________________ in children.

3. If a pediatric patient has a seizure and there is no possibility of spinal injury, position the
   patient _________________________ _________________________
   _________________________.

4. All EMS personnel should immediately get a follow-up evaluation after any call where
   _________________________ is suspected.

5. SIDS patients typically show periods of cardiac slowdown and temporary cessation of
   breathing known as _________________________ _________________________.

6. Suspect _________________________ _________________________ when a child with
   a head injury presents with shock.

7. Inflation of the abdominal compartment of the PASG with a pediatric patient may com-
   promise _________________________.

8. Use _________________________ dressings with caution when treating pediatric burn
   patients.

9. In cases of suspected child abuse, be the child’s advocate but do not
   _________________________ the parents.
10. Pediatric calls are among the most _________________________ for EMTs.

11. During the assessment and treatment of a young child, you will, if possible, want the child to sit in the _________________________ _________________________.

12. When opening a child’s airway, it is important not to _________________________ the child’s neck.

13. Use _________________________ _________________________ alternating with _________________________ _________________________ to clear a severe airway obstruction in an infant 1 year old or less.

14. _________________________ is the underlying reason for many of the most serious medical problems with children.

15. For infants and young children who are frightened by the oxygen mask, provide oxygen with the _________________________ - _________________________ technique.

16. For children age 1 to puberty, provide artificial ventilations at the rate of _________________________ breaths per minute.

17. Diarrhea, vomiting, infection, abdominal injuries, and blood loss are common causes of _________________________ in infants and children.

18. Because children have a large surface area in proportion to their body mass, they are especially prone to _________________________.

19. _________________________ is a viral illness that causes swelling of the larynx lining, while _________________________ is a bacterial infection that produces severe swelling of the epiglottis.

20. Fever with a(n) _________________________ is a sign of a potentially serious condition.
CHARTING CHARACTERISTICS OF INFANTS AND CHILDREN

Complete the following chart by filling in either the effects that their anatomical and physiological characteristics produce in infants and children or by filling in the characteristics that produce the effects.

<table>
<thead>
<tr>
<th>Anatomical and Physiological Differences of Infants and Children Compared to Adults</th>
<th>Potential Effects That May Impact Assessment and Care</th>
</tr>
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<tbody>
<tr>
<td>1. Smaller airway structures</td>
<td>More likely to block airway</td>
</tr>
<tr>
<td>Abundant secretions</td>
<td>More easily blocked</td>
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<tr>
<td>Deciduous (baby) teeth</td>
<td>Can block the airway</td>
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<td>Flat nose and face</td>
<td>Difficult to obtain good mask seal</td>
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<td>Head heavier relative to body; less well-developed neck muscles</td>
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<td>4. Thinner, softer brain tissue</td>
<td>Bulging may indicate intracranial pressure; if sunken, may indicate dehydration</td>
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<td>Head larger in proportion to body</td>
<td>Susceptible to serious brain trauma</td>
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<td>Tips forward when supine, causing flexion of neck, making neutral alignment of airway dif-</td>
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<td><strong>5.</strong></td>
<td>Can be closed off with hyperextension of neck</td>
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<td>Short neck</td>
<td>Difficult to stabilize or immobilize</td>
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<td>Abdominal breathers</td>
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<td>Faster respiratory rate</td>
<td>Muscles fatigue easily, causing respiratory distress</td>
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<td><strong>7.</strong></td>
<td>May not automatically open mouth to breathe; airway easily blocked</td>
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<td>Larger body surface relative to body mass</td>
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<tr>
<td>Thinner skin</td>
<td>More sensitive to effects of burns</td>
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<tr>
<td>Softer bones</td>
<td>Less easily fractured</td>
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<td><strong>9.</strong></td>
<td>Traumatic forces may be transmitted to chest cavity; lungs easily damaged with trauma</td>
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<td>Spleen and liver more exposed</td>
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INFANTS AND CHILDREN LISTING

Complete the following lists.

1. List four common causes of shock in pediatric patients.

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

2. List at least six signs of respiratory distress in pediatric patients.

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

3. List the emergency care steps for a child with high fever whose skin is very warm-to-hot to the touch.

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
4. List the basic emergency care steps for the pediatric trauma patient.

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

5. List four signs of sexual abuse in children.

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________
Chapter 33 Answer Key

HANDOUT 33-1: Chapter 33 Quiz

1. A
2. C
3. B
4. A
5. D
6. C
7. C
8. C
9. C
10. C
11. C
12. D
13. A
14. B
15. A

HANDOUT 33-2: In the Field

A. 1. The child is likely to be in the early stages of shock from infection and hypovolemia. 2. Ensure an open airway. Provide high-flow, high-concentration oxygen. Keep the child warm. Transport.

B. 1. The problem is likely epiglottitis. 2. Transport immediately. Provide high-concentration
oxygen from a humidified source. If the child resists the mask, let the mother hold it near her face. Constantly monitor the child’s respiratory efforts. Do not place anything in the child’s mouth.

C. 1. The likely cause is a febrile seizure. 2. Maintain the airway. Cool the infant down very slowly as allowed by local protocol or medical direction. Be alert for possible vomiting and the need to suction. Provide oxygen, and transport.

HANDOUT 33-3: Chapter 33 Review

1. rubbing alcohol
2. seizures
3. on his side
4. meningitis
5. sleep apnea
6. internal injuries
7. breathing
8. moist
9. accuse
10. stressful
11. parent’s lap
12. hyperextend
13. back blows; chest thrusts
14. Hypoxia
15. blow-by
16. 12–20
17. shock
18. hypothermia
19. Croup; epiglottitis
20. rash

HANDOUT 33-4: Charting Characteristics of Infants and Children

1. Tongue proportionally larger
2. Easily dislodged; can block airway
3. Head may be propelled more forcefully than body, making for higher incidence of head injury in trauma
4. Fontanel and open sutures palpable on top of young infant’s head
5. Shorter, narrower, more elastic trachea
6. Difficult to evaluate breathing
7. Newborns are obligate nose breathers
8. Prone to hypothermia
9. More flexible ribs
10. Injury likely with significant force to abdomen

HANDOUT 33-5: Infants and Children Listing

1. Diarrhea and/or vomiting with resulting dehydration; Infection; Trauma (especially abdominal injuries); Blood loss
2. *Early signs*: Nasal flaring; Retractions; Use of abdominal muscles; Stridor; Audible wheez-
ing; Grunting; Breathing rate greater than 60/min.

Additional: Cyanosis; Decreased muscle tone; Poor peripheral perfusion; Altered mental status; Decreased heart rate

3. Remove patient’s clothing. If protocols permit and heat results from heat exposure, cover child with towel soaked in tepid water. Monitor for shivering and avoid hypothermia; if shivering develops, stop cooling and cover child with light blanket. If protocols permit, give fluids by mouth or let child suck chipped ice. Transport if skin feels very warm or hot to touch.

4. Ensure open airway; use jaw-thrust. Suction as necessary. Provide high-concentration oxygen. Ventilate with pediatric pocket mask or BVM as needed. Provide spinal immobilization; use car seat if necessary. Transport immediately. Provide ongoing assessment. Assess and treat other injuries if time permits.

5. Obvious burns or wounds to genitalia. Unexplained genital injuries such as bruising, lacerations, or bloody discharge from genital openings. Seminal fluid or other discharges associated with sexually transmitted diseases on body or clothing. The child’s statement that he or she was sexually assaulted.
CHAPTER 34

Geriatric Emergencies

HANDOUT 34-1: Evaluating Content Mastery  Student’s Name

EVALUATION

CHAPTER 34 QUIZ

Write the letter of the best answer in the space provided.

_____ 1. If an EMT is unable to ventilate a geriatric patient, he should:
   A. call 911.
   B. start CPR.
   C. look to see if dentures are obstructing.
   D. apply full-concentration oxygen.

_____ 2. As people age, their systolic blood pressure has a tendency to:
   A. stay the same.  C. increase.
   B. decrease.  D. go up and down.

_____ 3. In geriatric patients the most common injury associated with a fall is to the:
   A. neck.  C. hip or proximal femur.
   B. proximal tibia.  D. distal radius.

_____ 4. If an EMT observes a slow, steady decline in a geriatric patient, she should:
   A. reassess the patient.
   B. immobilize the spine immediately.
C. take vital signs again in 15 to 20 minutes.
D. only reassure the patient.

5. A significant fear among geriatric patients who are injured is:
   A. bleeding.  C. loss of independence.
   B. pain.  D. use of medication.

6. Among patients over age 65, almost all have:
   A. arthritis.  C. diabetes.
   B. high blood pressure.  D. hearing impairment.

7. Of the following, the LEAST likely reason for an EMS unit to be called by an older patient is:
   A. cardiac and respiratory problems.
   B. neurological problems.
   C. injuries from a fall.
   D. injuries sustained in a motor vehicle crash.

8. Abnormal heart rhythms can make people over age 65 more prone to:
   A. weight loss.  C. pneumonia.
   B. hypothermia.  D. falls.

9. Clouding and thickening of the eye lenses in an older patient is the result of:
   A. trauma.  C. certain eyedrops.
   B. cataracts.  D. stroke.

10. The best way to establish an airway in a geriatric patient with an arthritic neck is:
Read the following real-life situation. Then answer the questions that follow.

You have been dispatched to an independent living center for the elderly. En route to the call your partner complains that driving is difficult because the roads are covered with snow. Before you enter the living center, you grab an extra blanket and throw it on the wheeled cot. Your partner turns to you and says, “The temperature must be in the single digits.” You enter the patient’s apartment and find a woman in her 70s sitting in a chair with a blanket over her. Her friend, who lives in the next apartment, tells you that the patient was found in this chair about half an hour ago and they put a blanket on her and called 911. The custodian from the building is there and says that he was called because the apartment was cold and reports the temperature to be 50°F. The patient is shivering, and when you ask questions, her responses are confused.

1. What action(s) should you take at this time?

You start to talk to the patient and realize that she has trouble hearing and is confused. You position yourself at eye level and speak slowly and clearly, giving the patient time to respond. You know that the airway is open and breathing is slightly labored at a rate of 24. Her pulse is 80 and irregular. The skin is pale and cold. Your partner starts to take a blood pressure. The patient does not give you a good response when taking a SAMPLE history, but the next-door neighbor gives you a “Vial of Life” that contains an overview of her medical history, including medications and allergies. You and your partner decide that you want to start packaging the patient for transport. The neighbor says she will call the daughter and tell her that you are taking her mother to the hospital.
2. What action(s) should you take at this time?
CHAPTER 34 REVIEW

Write the word or words that best complete each sentence in the space provided.

1. In assessing the chest and abdomen of geriatric patients, an EMT should keep in mind their ________________ ________________ to pain.

2. A number of older people fall because of ________________ heart rhythms.

3. An EMT can help prevent falls by looking for ________________ ________________ when entering an older person’s home.

4. An elderly person can be abused or neglected in three ways: ________________, ________________, and ________________.

5. Two common causes of altered mental status in the elderly are ________________ and ________________.

6. Older patients are at least ________________ as likely to use EMS as young patients.

7. With an elderly patient who is determined to be unstable, vitals signs should be taken every ________________ minutes.

8. In assessing the circulation of an older patient, an EMT may notice that the pulse is often ________________ ________________.

9. When an older patient replaces lost circumstances with imaginary ones, it is called ________________.
GERIATRIC EMERGENCIES TRUE OR FALSE

Indicate if the following statements are true or false by writing T or F in the space provided.

____ 1. The hip or proximal femur is commonly fractured in falls of the elderly, especially women.

____ 2. Depression and suicide are not common among the elderly.

____ 3. How well an elderly patient keeps house is not a concern when the EMT is doing the scene size-up.

____ 4. Dizziness may be a symptom of internal blood loss with the geriatric patient.

____ 5. When a geriatric patient has shortness of breath, the EMT needs to have a high index of suspicion that it might be a chief complaint for a myocardial infarction.

____ 6. Older patients represent a much lower proportion of patients transported by EMS compared to the younger population.

____ 7. The most common reason for EMS to be called for an elderly patient is injuries sustained in a motor vehicle crash.

____ 8. The condition of an elderly patient’s house may give an EMT important clues to the patient’s physical and mental condition.

____ 9. Older patients have a lower tolerance for pain.

____ 10. A number of older people fall because of abnormal heart rhythms.
Chapter 34 Answer Key

HANDOUT 34-1: Chapter 34 Quiz

1. C
2. C
3. C
4. A
5. C
6. A
7. D
8. D
9. B
10. D

HANDOUT 34-2: In the Field

1. The scene size-up is important. The patient is in a cold environment and probably has been for some time and is showing, in part, signs of hypothermia because of the shivering. In addition, you noticed her confusion. The patient may need another blanket, and the custodian should be asked to get the apartment warmed up if this isn’t being done already. As with every patient, the initial assessment is essential, and the ABCs must be assessed. Determine if this is a priority patient in need of rapid transport. As time permits and depending on the decision to transport quickly, a SAMPLE history, a physical exam, and a baseline set of vital signs should be obtained.
2. The patient should be placed on oxygen by nonrebreather. The patient needs to be protected from further exposure to the cold. Wrap the patient in multiple layers to ensure that she is not aggravated by the cold weather when she goes outside and is loaded into the ambulance. As you are preparing to move the patient, your partner reminded you that hypothermia can make a patient more prone to ventricular fibrillation and that the move needs to be done as gently as possible. The AED is kept close by. You talk to the patient to tell her what is being done and why. You let her know that her daughter is being notified. You take the information from the Vial of Life with you for the hospital staff. En route to the hospital, you continue to monitor vital signs. As you arrive at the hospital, the patient seems to be less confused and is shivering less. You give a complete patient report to the triage nurse.

**HANDOUT 34-3: Review**

1. decreased sensitivity
2. abnormal
3. potential hazards
4. physical; psychological; financial
5. Any two of these:
   - Medications
   - Hypoglycemia
   - Infection
   - Hypothermia
   - Stroke
6. twice
7. 5
8. irregularly irregular
9. confabulation

**HANDOUT 34-4: Geriatric Emergencies True or False**

1. T
2. F
3. F
4. T
5. T
6. F
7. F
8. T
9. F
10. T
CHAPTER 35

Emergencies for Patients with Special Challenges

HANDOUT 35-1: Evaluating Content Mastery  Student’s Name

EVALUATION

CHAPTER 35 QUIZ

Write the letter of the best answer in the space provided.

______ 1. Which of the following rhythms is the automatic implanted cardiac de-
fibrillator (AICD) designed to detect and correct?
   A. Asystole  C. Bradycardia
   B. Ventricular fibrillation  D. Third-degree heart block

______ 2. A patient with a left ventricular assist device (LVAD) has a pump that
   is usually implanted where?
   A. Chest  C. Upper arm
   B. Thigh  D. Abdomen

______ 3. The tube that is surgically implanted and extends into the stomach and
   is used to provide long-term nutrients as a feeding tube is called a(n):
   A. G-tube.  C. NG tube.
   B. S tube.  D. F tube.

______ 4. If nutrients are being administered during transport, where should the
   bag be placed in relationship to the tube through which the nutrients are
   being delivered?
   A. Lower than the tube  C. Higher than the tube
5. What are the two important roles that dialysis serves?

A. Waste removal and fluid removal
B. Waste removal and fluid replacement
C. Provide medication and fluid replacement
D. Provide medication and waste removal

6. Which of the following will probably NOT help with a hearing-impaired patient and possibly could make matters worse?

A. Writing questions on a piece of paper
B. Using a TDD/TTY phone
C. Seeing if the patient reads lips
D. Speaking more slowly

7. If the patient has a guide dog that is calm and under control, how should the dog be handled if the patient needs to be transported?

A. Leave the dog and notify someone to take responsibility.
B. Notify animal control.
C. Transport the dog with the patient.
D. Try to get someone else to transport the dog to the hospital.

8. The purpose of an ostomy bag is to provide for:

A. Drainage from an abscess. C. Urinary drainage.

9. A condition that occurs after birth and may be the result of exposure to a virus or bacterium is called a(n):
10. An example of a congenital disease is:

11. A continuous positive airway pressure (CPAP) device provides, through a tube and mask, to prevent airway passages from collapsing.
   A. intermittent pressure. B. constant pressure. C. pressure on demand from the patient. D. pressure timed to specific intervals.

12. For which of the following conditions might a person most likely be using a continuous positive airway pressure (CPAP) at home?

13. A frequent problem with tracheostomy tubes is a buildup of mucus. How is this problem usually handled?

14. Which of the following is LEAST likely to be knowledgeable about the devices and conditions of a special needs patient?

15. A pacemaker is implanted under the skin and with wires implanted
into the heart and is designed to prevent the heart rate from becoming too:

A. fast.  
B. irregular.  
C. slow.  
D. asystolic.
Read the following real-life situation. Then answer the questions that follow.

You and another EMT are leaving the hospital after dropping off a patient and are discussing that now would be a good time to get something to eat. Suddenly, the dispatcher sends you on a call to 47 Sunrise Lane for a medical alarm call (which means that someone at the residence has activated a device requesting EMS assistance). While you are en route to the call, the dispatcher provides you with the following additional information: This is a residence of a 23-year-old male patient who is on a respirator, and it has been reported that the device is not working properly. The dispatcher tells you that he has someone on the phone at the residence and is trying to obtain more information.

1. What additional information would be helpful?

The dispatcher tells you that the patient is getting some assistance, but the device is not working properly. There is a backup on the scene, but it is unknown if it is being used. In addition, there is a caregiver with training from a home health-care agency on the scene. Just as you finish receiving this information you pull up to the scene and enter the residence with your equipment. You find the home health-care worker trying to get the backup machine in place. The patient seems anxious, and you observe a little cyanosis around the lips and fingernails.

2. What should you do to care for this patient?
CHAPTER 35 REVIEW

Write the word or words that best complete each sentence in the space provided.

1. In case of a mechanical failure of a home ventilator, a _______________ -
   _______________ _______________ device can take over the function of the ventilator.
2. A pacemaker is designed to prevent the heart rate from becoming too _______________.
3. An automatic implanted cardiac defibrillator (AICD) is designed to detect the following
two life-threatening cardiac rhythms: _______________ _______________ and
   _______________ _______________.
4. A battery-powered mechanical pump implanted in the body to assist a failing left ventricle
   in pumping blood to the body is called a(n) _______________ _______________
   _______________ _______________.
5. A _______________ _______________ is a feeding device surgically implanted in the
   abdomen that extends into the stomach to provide nutrients.
6. A(n) _______________ _______________ is an external pouch that collects fecal matter
diverted from the colon or ilium through a surgical opening in the abdominal wall.
7. _______________ is performed by attaching the patient to an external machine to filter
   blood and remove toxic or unwanted wastes and fluids.
8. A potential complication of a dialysis shunt is _______________ from a rupture.
9. Two individuals on the scene of a call who can assist the EMT in providing care or assist
   with a special needs patient are the _______________ and the _______________.
10. A disease that occurs after birth is called _______________.
11. A disease that is present at birth is called _______________.

12. A mnemonic to use when dealing with autism patients is ABCS, which stands for _______________ _______________ _______________ _______________.

13. A _______________ is a surgical opening in the neck into the trachea, and when this opening is permanent it is called a _______________.

14. When you are assessing a tracheostomy tube, it needs to be checked for a _______________, and, if necessary, you need to _______________ it.

15. A ventilator is a device that breathes for the patient and is programmed to take over the functions of _______________, _______________, _______________, and _______________ of breathing.
HANDOUT 35-4: Reinforcing Content Mastery  Student’s Name

PATIENTS WITH SPECIAL NEEDS TRUE OR FALSE

Indicate if the following statements are true or false by writing T or F in the space provided.

_____ 1. A ventilator is a device that breathes for a patient.

_____ 2. A pacemaker is designed to prevent the heart rate from becoming too fast.

_____ 3. An automatic implanted cardiac defibrillator (AICD) is dangerous if it shocks when the patient is wet.

_____ 4. The patient, providers, and caregivers will not be shocked or harmed if the automatic implanted cardiac defibrillator (AICD) shocks while they are touching the patient.

_____ 5. During transport, the bag for a urinary catheter should be kept higher than the level of the patient.

_____ 6. Hemodialysis is performed by attaching a patient to an external machine called a dialyzer.

_____ 7. All patients with hearing loss can read lips.

_____ 8. If available, a TDD/TTY phone may be used to assist when communicating with a patient with either a hearing or a speech impairment.

_____ 9. An EMT is not trained to calm autism patients and should not be expected to do so.

_____ 10. It is advisable to seek input from the patient or a person with the patient who has been trained on the device or the conditions that a special needs patient has.

_____ 11. Talking and explaining any action such as care and preparation for
transport may help to alleviate the stress a special needs patient may be feeling.

12. If the treatment or skill required for a special needs patient is not something an EMT is trained in or allowed to do by protocol, confer with medical direction.

13. A disease or condition that occurs after birth and that may be the result of exposure to a virus or bacterium is called a congenital disease.

14. A continuous positive airway pressure (CPAP) device provides constant pressure to prevent airway passages from collapsing and is often prescribed to a patient who suffers from sleep apnea.

15. The EMT should always assume that a patient with a tracheostomy can speak.
HANDOUT 35-5: Reinforcing Content Mastery  Student’s Name

MATCHING

Write the letter of the medical device in the space provided next to the situation it is appropriate for.

A. Congenital disease
B. Acquired disease
C. Continuous positive airway pressure (CPAP)
D. Tracheostomy
E. Stoma
F. Pacemaker
G. Automatic implanted cardiac defibrillator (AICD)
H. Left ventricular assist device (LVAD)
I. Feeding tube
J. Urinary catheter
K. Ostomy bag
L. Hemodialysis
M. Peritoneal dialysis
N. Central IV catheter
O. Implanted port

1. A tube inserted into the bladder through the urethra to drain the bladder
2. Procedure performed by attaching a patient to an external machine called a dialyzer
3. A device that uses electrical impulses to regulate rhythms of the heart
4. A disease that occurs after birth
5. A surgically created opening into the body, as with a tracheostomy, which is permanent.

6. A device that exerts constant pressure through a tube and mask worn by a patient to keep airway passages from collapsing at the end of a breath.

7. A tube used to provide delivery of nutrients, usually in two forms—NG tube and G-tube.

8. A device implanted under the skin that can detect a life-threatening cardiac dysrhythmia and respond by delivering a high-energy shock to correct the rhythm.

9. A device that is surgically inserted for long-term delivery of medications or fluid into the circulation.

10. A disease that is present at birth.

11. A battery-powered mechanical pump implanted in the body to assist a failing left ventricle in pumping blood to the body.

12. An external receptacle that collects fecal matter diverted from the colon or ilium through a surgical opening in the abdominal wall.

13. Surgical opening in the neck.

14. A central IV catheter that can be felt under the skin and that has no external tubing.

15. Procedure performed with a solution containing minerals and glucose that is run into the abdominal cavity through a surgically implanted tube.
Chapter 35 Answer Key

HANDOUT 35-1: Chapter 35 Quiz

1. B
2. D
3. A
4. C
5. A
6. D
7. C
8. B
9. C
10. A
11. B
12. D
13. A
14. B
15. C

HANDOUT 35-2: In the Field

1. Is the patient still able to breathe with the device? If not, is an alternate mechanism or device being used? Is there someone on scene who knows the patient history and understands how to operate the home ventilator device in use?
2. Immediately get out the bag-valve mask (BVM) and start to assist ventilations with high-concentration oxygen. As you do this you should explain to the patient and the home health-care worker what you are doing. As you provide breathing assistance with the BVM, you should observe adequate chest rise and improving skin color. You also must make sure that the rate, volume, and pressure are adjusted to the patient’s comfort level. At the same time your partner should be assessing the patient and taking a complete set of vital signs, including obtaining a pulse oximeter reading. As time permits, obtain a SAMPLE history.

**HANDOUT 35-3: Chapter 35 Review**

1. bag-valve mask (BVM)
2. slow
3. ventricular fibrillation; ventricular tachycardia
4. left ventricular assist device (LVAD)
5. gastric tube (G-tube)
6. ostomy bag
7. Hemodialysis
8. bleeding
9. patient; caregiver
10. acquired
11. congenital
12. awareness, basic, calm, and safety
13. tracheostomy; stoma
14. blockage; clear
15. inhalation; exhalation; timing; rate

**HANDOUT 35-4: True or False**

1. T
2. F
3. F
4. T
5. F
6. T
7. F
8. T
9. F
10. T
11. T
12. T
13. F
14. T
15. F

**HANDOUT 35-5: Matching**

1. J
2. L
3.  F
4.  B
5.  E
6.  C
7.  I
8.  G
9.  N
10. A
11. H
12. K
13. D
14. O
15. M