Answers

CHAPTER 9
NURSING CARE OF PATIENTS IN SHOCK

AUDIO CASE STUDY

José and Anaphylactic Shock

1. Use the thumbnail or a credit card to brush the stinger away, being careful not to pinch it and push more venom into the body. Yes, José performed it properly.
2. There may be an allergy to bees now after sensitization from a prior sting.
3. A subsequent insect sting could cause more severe anaphylactic symptoms. If symptoms occur, José can give himself an auto-injection of epinephrine. Since its effects may work for only a short time, seeking medical care is urgent.

VOCABULARY

Sample sentences will vary for the Vocabulary problems.

1. acidosis
2. anaerobic
3. anaphylaxis
4. arrhythmia
5. cardiogenic
6. cyanosis
7. tachypnea
8. oliguria
9. tachycardia
10. hypoperfusion

MATCHING

1. (**2**)
2. (**1**)
3. (**3**)
4. (**2**)
5. (**2**)

SIGNS AND SYMPTOMS OF SHOCK STAGES

Signs/Symptoms	Stages		
	Compensated	***Progressive***	***Irreversible***
Heart rate	Tachycardia	Tachycardia over 150 beats/min	Slowing
Pulses	Bounding	Weak, thready	Absent
Systolic blood pressure	Normal	Below 90 mm Hg In hypertensive patient, 25% below baseline	Below 60 mm Hg
Diastolic blood pressure	Normal	Decreased	Decreasing to 0
Respirations	Increased rate, deep	Tachypnea, crackles, shallow	Slowing, irregular, shallow
Temperature	Varies	Decreased, can rise in septic shock	Decreasing
Level of consciousness	Anxious, restless, irritable, alert, oriented, sense of impending doom	Confused, lethargic	Unconscious, comatose
Skin and mucous membranes	Cool, clammy, pale	Moist, cold, clammy, pale	Cyanosis, mottled, cold, clammy
Urine output	Normal	Decreasing to less than 20 mL/hr	15 mL/hr decreasing to anuria
Bowel sounds	Normal	Decreasing	Absent

PRIORITIZATION

1. (**4, 2, 5, 6, 1, 3**) is the correct order. Use the Maslow hierarchy of human needs as a guide. (4) Airway is considered first and (2) then oxygen; (5) determining vital signs will guide further treatment; (6) intravenous fluids are needed to replace lost fluid in hypovolemic shock, so ordered intravenous fluids need to be monitored and maintained; and (1) urine output monitoring will help guide treatment. (3) is not the priority at this time until the patient is stabilized.
2. (**4**) These vital signs indicate progressive shock and require immediate intervention.
3. Suggested CUS: I'm **c**oncerned about Miss Serino's vital signs. I am **u**ncomfortable with her status. I believe she is not **s**afe and that something serious is occurring to make her vital signs abnormal.

CLINICAL JUDGMENT

1. Stage of shock: Irreversible
   Category of shock: Hypovolemic
   Initial action: Notify health-care provider (HCP) and aid volume restoration by monitoring IV infusion.
2. Stage of shock: Compensated
   Category of shock: Septic
   Initial action: Notify HCP, apply and monitor oxygen per parameters
3. Stage of shock: Progressive
   Category of shock: Cardiogenic
   Initial action: Stop IV infusion now, then notify HCP

REVIEW QUESTIONS

*The correct answers are in **boldface**.*

1. (**2**) is correct. Decreased peripheral tissue perfusion may be seen first as slow capillary refill, except in the older patient. (1, 3, 4) do not convey peripheral tissue perfusion status.
2. (**1, 3, 4, 5**) are correct. When teaching the older patient, include family/caregivers to reinforce learning later, have reading materials available in large print, face the patient, and speak slowly in a lower tone to increase understanding of spoken words. (2) High-pitched tones are often the first to be lost, so lowering the tone aids understanding.
3. (**2**) is correct. Increasing blood pressure indicates the shock is improving. (1, 3, 4) are signs of ongoing shock.
4. (**1**) is correct. It is a 25% decrease in systolic blood pressure from baseline for this patient, who normally is hypertensive. (2, 3, 4) are not a 25% decrease in systolic blood pressure from baseline.
5. (**2**) is correct. The goal is to increase understanding when knowledge is deficient. (1, 3, 4) are not related to knowledge.
6. (**3**) is correct. Notify the HCP immediately because the patient is hypovolemic and could need intravenous fluids. (1) This weight loss after dialysis is to be expected. (2) Resting is not the priority at this time. (4) The patient requires intervention now with more frequent monitoring.
7. (**2**) is correct. Elevated creatinine indicates possible acute kidney injury. (1, 3, 4) are normal or near normal and not indicative of a problem.
8. (**2**) is correct. The pulse elevates to compensate for decreasing cardiac output in compensated shock and is therefore the earliest indication of shock from these options. (1, 3, 4) are found in progressive shock and would be seen later than tachycardia.
9. (**1**) is correct. It is of highest concern because it is a symptom of progressive shock. (2, 3, 4) are found in compensated shock.
10. (**3**) is correct. Inform the registered nurse so the intravenous rate can be increased while the HCP is being notified because the patient is hypovolemic. (1) The patient needs immediate treatment intervention which monitoring does not provide. (2, 4) can worsen the condition.
11. (**4**) is correct. It increases blood pressure. (1) increases heart rate. (2) decreases heart rate and strengthens cardiac contractions. (3) vasodilates which decreases blood pressure.
12. (**1, 2, 6**) are correct. Wheezing, urticaria, and bronchospasm are seen specifically in anaphylactic shock. (3) is not a sign of shock. (4) is a sign of progressive shock. (5) is a sign of compensated shock.
13. (**1, 2, 5, 6**) is correct. Symptoms of obstructive shock are similar to those of hypovolemic shock except that jugular veins are usually distended. Blood pressure is low, urine output is less than 20 mL per hour, and changes in level of consciousness, including confusion and lethargy, are seen. (3, 4) are incorrect because tachycardia and tachypnea would instead occur.
14. (**1, 3, 4**) are correct. Acute respiratory distress syndrome, disseminated intravascular coagulation, and multiple organ dysfunction syndrome are complications of prolonged shock. (2, 6) are genetic conditions. (5) is a bone marrow problem.
15. (**2, 3, 1**) is the correct order. Blood pressure decreases as shock progresses.
16. (**2**) is correct. Restlessness and confusion indicate a need for oxygen, which is started immediately per agency policy by the nurse while other prescribed treatment is prepared. (1, 3, 4) are treatments that may be prescribed but they are not as quickly implemented as oxygen can be.
17. (**4**) is correct. A blood pressure within normal range would indicate effective treatment for shock. (1, 2, 3) are all abnormal findings which indicate the shock has not been resolved.