Learning Activities

1.  l, g, k, m, a, j, d, e, h, b, f, c, i
2.  500
    1,000
3.  24
    24
    6
4.  a.  Increases (early)
    b.  Increases (early)
    c.  Pulse pressure narrows initially, blood pressure falls as shock progresses and eventually becomes undetectable
    d.  Become pale, cool, and clammy
    e.  Anxiety (early), confusion, restlessness, and lethargy
5.  Contracting uterine figure-8 muscle fibers compress bleeding vessels.
6.  Breast stimulation secretes release of oxytocin (which contracts the uterus) from the posterior pituitary.
7.  a.  Bleeding
    i.  Uterine atony: heavy bleeding, often with large clots or a persistent moderate flow that does not diminish
    ii.  Laceration: continuous trickle of blood that is often brighter red than normal lochia
    b.  Uterine fundus
    i.  Uterine atony: soft uterus, usually high in the abdomen; displaced to one side if a full bladder is causing the atony
    ii.  Laceration: fundus is usually firm; bladder may or may not be full
8.  a.  Blue or purplish mass if visible
    b.  Severe and poorly relieved pain and/or pressure in the vulva, pelvis, or rectum
    c.  Lochia is normal in color and amount; large amount of trapped blood may cause hypovolemia
9.  Manual removal of the placenta is removal of the placenta by hand rather than it being pushed away from the uterine wall by spontaneous contraction of the uterus.
10. a.  SVT is characterized by a tender, reddened, hard area along the vein; it is easily visible.
    b.  DVT is characterized by increased pain and calf tenderness, leg edema, color and temperature changes; Homans’ sign may be positive; possible temperature elevation
11. Pulmonary embolism
12. 38°C (100.4°F) or higher; 24, 2, 10
13. Redness, edema, discharge, separating suture line, localized increased skin temperature, localized pain
14. The organs are interconnected and richly supplied with blood.
15. The leukocyte count is normally elevated during the postpartum period to as high as 20,000-30,000/dL, which would suggest infection in a non-maternity client.
16. The woman needs foods high in protein (meats, cheese, milk, legumes) and vitamin C (citrus foods, strawberries, cantaloupe) to promote healing and foods high in iron (meats, enriched cereals and breads, dark green leafy vegetables) to correct anemia. The teaching is appropriate for other people with infection if the foods are not contraindicated or against their customs or religious beliefs.
17. a.  Fever
    i.  Cystitis: usually has a low temperature elevation
    ii.  Pyelonephritis: high fever, often with spikes
    b.  Discomfort
    i.  Cystitis: characterized by burning on urination
    ii.  Pyelonephritis: characteristics by pain in the costovertebral angle or flank
    c.  Other characteristics
    i.  Cystitis: often has urgency and frequency of urination
    ii.  Pyelonephritis: often includes chills, nausea, and vomiting. Pyelonephritis is the most serious, requiring IV antibiotics for initial treatment during pregnancy.
18. a. Encourage noncaffeinated fluid intake of 3 liters/day
   b. Foods that increase urine acidity to discourage growth of infectious organisms include apricots, cranberry juice, plums, and prunes.
19. a. Breast engorgement
   b. Inadequate emptying of milk from the breasts
20. a. Increases blood flow to the area
   b. Promotes comfort
   c. Promotes complete emptying of the breast
21. a. Fundal height greater than expected for the amount of time since birth
   b. Persistence of lochia rubra or a slowed progression through the phases of lochia
   c. Pelvic pain, heaviness, or fatigue
22. a. Postpartum blues: common; periods of feeling let down, but overall pleasure in life and role as mother
   b. Postpartum depression: non-psychotic; affects about 10–20% of women; depression noticed by those in regular contact with woman; symptoms include lack of enjoyment in life; lack of interest in others; intense feelings of inadequacy, unworthiness, guilt, inability to cope; loss of mental concentration; sleep disturbances; constant fatigue and feelings of ill health

Review Questions
1. Answer: 2
   Rationale: Most postpartum women have a relatively slow pulse, depending on other medications they have received recently. Both pulse and respiratory rates are elevated in this option.
2. Answer: 1
   Rationale: The woman is at risk for all of these complications, but the one most likely to develop during the first four hours after birth is uterine atony. This is an immediate risk because the woman had a long labor augmented with oxytocin, and delivered a large infant. Endometritis may develop due to the long labor and operative birth, but is not an immediate problem. Subinvolution is a late-developing complication. A urinary tract infection may develop because of the indwelling catheter and long labor, but is not the most immediate potential risk.
3. Answer: 2
   Rationale: Massaging the atonic uterus stimulates it to contract and compress bleeding vessels. Catheterization is not yet needed and there is no evidence of a distended bladder that the woman cannot empty. Increasing IV fluids and checking vital signs are appropriate actions, but not until massage of the uterus to stimulate it to contract.
4. Answer: 3
   Rationale: The cold pack is easily applied to this small external hematoma to limit bleeding into the tissues and reduce pain. A larger hematoma, especially if within the vagina, may have more severe pain and could not be reached by external cold application. Warmth would increase bleeding into the tissues now, but would be appropriate after a minimum of 12 hours postbirth. A tightly applied pad is likely to be painful and not effective. The physician can be notified, but cold is a nursing intervention that is appropriate even before calling him or her.
5. Answer: 1
   Rationale: Lochia rubra should progress to serosa (pink-brown color) by about 3 days and should not return to rubra. All other options are normal postbirth changes.
6. Answer: 1
   Rationale: Ambulation decreases venous stasis, which would contribute to clot formation. Increasing fluids and taking temperature are good postpartum interventions, but not specific for preventing thrombosis. Staying in bed would increase the risk of thrombosis, plus respiratory complications.
7. Answer: 4
   Rationale: Persistent, severe cramping is typical of endometritis. Poorly relieved perineal pain 4 hours postpartum suggests hematoma. Vital signs in option 2 are within normal limits in the immediate postpartum period (in the absence of other signs or symptoms of infection). Leukocyte count of 21,000/dL could be normal with no other signs or symptoms of infection. The physician may order antibiotics despite the leukocyte level being normal for early postpartum if the woman has other risk factors such as a long labor.
8. Answer: 1
   Rationale: A semi-Fowler’s position promotes drainage of infectious substances from the uterus. None of the other positions use gravity to aid drainage.
9. Answer: 1
   Rationale: Cystitis typically manifests with frequent passage of small quantities of urine because of bladder irritation. High fever with chills or nausea and vomiting are signs and symptoms of pyelonephritis. Expected postpartum diuresis causes frequent, non-painful passage of large quantities of urine.
10. Answer: 3
   Rationale: Large quantities of fluid help flush microorganisms from the bladder. Nutrients in whole grains and meats are good for general healing but do not directly flush microorganisms from the bladder. Bedrest is neither needed nor desirable. Constipation does not necessarily accompany cystitis.

11. Answer: 2
   Rationale: The woman had a marginal hemoglobin on admission and bled excessively after birth. No current hemoglobin or hematocrit is specified so the nurse should assume hers is low. She should sit upright first and ambulate cautiously and with help because fainting and falling are real possibilities. Careful urine measurement should be done, but does not take priority over the immediate possibility that she will fall. Keeping her bladder empty reduces the risk of uterine atony, but does not address her immediate need to void. She should not ambulate alone, including any time that she is lightheaded or dizzy.

12. Answer: 4
   Rationale: These are signs of a wound infection, which is usually the case if an episiotomy or laceration is infected. A temperature of 37.8°C is a normal finding, but other risk factors should be considered. Purplish coloration of perineum and labia is a sign of hematoma. Edema may be within normal limits, but is not localized with other signs of infection.

13. Answer: 1
   Rationale: If the woman has bled enough to deplete her blood volume, blood flow to the kidneys will be reduced, resulting in absent or scant urine output. The catheter provides guidance about the need for fluid/blood replacement. Nothing in the stem indicates a greater risk for bladder trauma. Ambulation should be cautious in the postpartum woman, especially if she had a hemorrhage. However, this is not the primary reason to use the catheter. An indwelling catheter would reduce pressure on the uterus that interferes with contractions, facilitating compression of vessels.

14. Answer: 4
   Rationale: The woman has symptoms typical of cystitis. Clean catch or catheterization obtains an uncontaminated urine specimen to identify if this is the cause of her symptoms before antibiotic therapy. Bladder analgesics are not indicated. IV antibiotics are most likely given for pyelonephritis or for a more generalized infection, such as endometritis but after a culture specimen is obtained. Light pink lochia is normal on this postpartum day. Vaginal secretions would not be cultured unless other signs or symptoms such as itching exist.

15. Answer: 4
   Rationale: The woman has symptoms typical of mastitis and needs evaluation for possible antibiotic therapy. Stopping breastfeeding can increase engorgement and worsen mastitis. Heat is the preferred treatment to increase circulation to the breast, promote comfort, and promote better emptying of the breast.

16. Answer: 3
   Rationale: Methylene can help uterine atony and retained placental fragments, but tends to worsen hypertension and is avoided if possible. Endometritis is an infection and needs primarily antibiotics.

17. Answer: 1
   Rationale: Vacuum extractor (or forceps) may traumatize the woman's vaginal tissue. The other factors increase the risk for uterine atony.

18. Answer: 3
   Rationale: Of the foods listed, these are highest in iron. The other foods have other benefits, but are not highest in iron.

19. Answer: 4
   Rationale: This woman seems to have more than the common let-down (“blues”) after birth. The nurse should further explore her feelings with her. The other options are not unreasonable but do not allow more exploration of the woman’s symptoms to determine if a more serious disorder, such as postpartum depression, may be present.

20. Answer: 2
   Rationale: This description best characterizes a bipolar disorder that is sometimes seen in women after birth. Periods of let-down feelings describes postpartum blues. Periods of overeating and lack of interest in food may describe an eating disorder or depression. Prolonged feelings of worthlessness or guilt best describes postpartum depression.

Case Study

1. Identified risk factors for postpartum hemorrhage include long labor followed surgical birth, and large fetal size, greater than average blood loss during surgery. Vital signs, urine output, and dressing condition are normal with transfer to unit.
   a. Risk for shock is greatest during the early hours after birth, and can reduce tissue perfusion quickly. Identifying signs and symptoms of oncoming or actual shock include narrowing pulse pressure, tachycardia, falling urine output, and later fall in blood pressure. Skin color pales as circulat-
ing blood is drawn toward the essential organs, heart, and brain. Early behavioral changes include restlessness, anxiety, and rapid breathing.

b. Pulse rate has increased, blood pressure has fallen, pulse pressure is lower, and Carmen is restless but denies pain. Lochia has increased in amount and clots are present despite her cesarean, which includes manual removal of placenta and uterine cleaning to remove surgical debris. The critical piece of information that is missing is fundal firmness, height, and deviation. Dressing should be checked for increased bleeding on surface.

c. Infection, possibly endometritis, is more likely related to the long labor followed by cesarean birth, and possibly long rupture of membranes, although not stated. Anemia would diminish Carmen’s tolerance for ambulation.

Thinking Critically

1. Teaching the woman during the early postpartum period how to nurse effectively can help prevent mastitis by reducing engorgement and milk stasis. Examples of teaching might include assuring proper latch-on and infant positioning, nursing frequently and for long enough at each breast to empty them and prevent stasis of milk, and avoiding things that impair nursing, such as artificial nipples or pacifiers.

2. The woman is exhibiting signs of postpartum depression and her feelings should be explored further to prevent her from harming herself or her baby and to identify possible need for referrals. Postpartum “blues” is self-limiting and should be past by this time (6 weeks). Consider also that the woman may be fatigued, worried about things unrelated to mothering, or not feeling well. Try to identify what is contributing to her behaviors to identify best sources of referral for the woman.

Applying Knowledge

Answers will vary.