Chapter 36, Anticoagulant and Thrombolytic Drugs

1. The nurse is preparing to administer protamine emergently to a client per instructions from the health care provider. The nurse concludes this is necessary due to an adverse reaction to which drug?
   A) Clopidogrel
   B) Heparin
   C) Alteplase
   D) Warfarin

   Answer: B

   Rationale: An overdosage of any anticoagulant may result in uncontrolled bleeding in the client. In most cases, discontinuation of the drug is usually sufficient to correct overdosage; however, if the bleeding is severe there are antidotes. Protamine is used to treat overdose of heparin and low–molecular-weight heparins (LMWHs). Vitamin K is used to treat the overdosage of warfarin. Alteplase and clopidogrel do not require antidotes.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 2
   Cognitive Level: Apply
   Client Needs: Physiological Integrity: Pharmacological Therapies
   Integrated Process: Clinical Problem-solving Process (Nursing Process)
   Reference: p. 468, Parenteral Anticoagulants

2. A nurse is conducting a seminar on thrombosis. The nurse should point out that arterial thrombus can occur related to which situation?
   A) Decreased blood flow
   B) Injury to the vessel wall
   C) Arrhythmias
   D) Altered blood coagulation

   Answer: C

   Rationale: The nurse should mention that arterial thrombosis is caused by atherosclerosis and arrhythmias. Decreased blood flow, injury to the vessel wall, and altered blood flow are causes of venous thrombosis.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 1
   Cognitive Level: Understand
   Client Needs: Physiological Integrity: Physiological Adaptation
   Integrated Process: Teaching/Learning
   Reference: p. 3, Introduction

3. A client with intermittent claudication is prescribed cilostazol by the primary health care provider. The nurse will administer this drug cautiously if the client's history reveals which disorder?
   A) Intermittent claudication
   B) Pulmonary emboli
   C) Myocardial infarction
   D) Pancytopenia

   Answer: D

   Rationale: The nurse should administer cilostazol with caution to clients with pancytopenia. Anticoagulants are used for the prevention and treatment of pulmonary emboli, the adjuvant treatment of myocardial infarction, and the treatment of intermittent claudication.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 2
   Cognitive Level: Apply
   Client Needs: Physiological Integrity: Reduction of Risk Potential
   Integrated Process: Clinical Problem-solving Process (Nursing Process)
   Reference: p. 462, Actions and Uses

4. A client is prescribed warfarin. The client also takes a diuretic for the treatment of cardiac problems. The nurse will monitor the client for which potential interaction?
   A) Decreased effectiveness of the anticoagulant
   B) Increased effectiveness of the diuretic
   C) Increased absorption of the anticoagulant
   D) Increased absorption of the diuretic

   Answer: A

   Rationale: The nurse should monitor for decreased effectiveness of warfarin as an effect of the interaction between the anticoagulant and the diuretic. The nurse need not monitor for the increased effectiveness of the diuretic, the increased absorption of the anticoagulant, or the increased absorption of the diuretic in the client.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 2
   Cognitive Level: Apply
   Client Needs: Physiological Integrity: Pharmacological Therapies
   Integrated Process: Clinical Problem-solving Process (Nursing Process)
   Reference: p. 461, Precautions

5. The nurse is monitoring a client who is receiving heparin by continuous IV infusion. Which action should the nurse **prioritize**?
   A) Perform a complete blood count.
   B) Perform baseline PT/INR.
   C) Perform aPTT test 4–6 hours after injection.

D) Perform blood coagulation tests every 4 hours.

Answer: D

Rationale: The nurse should perform blood coagulation tests every 4 hours for the client receiving heparin by continuous IV infusion. A blood count test or the baseline PT/INR test is not the right intervention for this client. When administering heparin by the subcutaneous route, an aPTT test is performed 4–6 hours after the injection.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 3
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 464, Ongoing Assessment

6. A nurse is preparing to administer the first dose of warfarin to a client. Which assessment should the nurse **prioritize** for this client?
   A) Observe for signs of thrombus formation.
   B) Assess PT and INR.
   C) Assess for signs of bleeding.
   D) Monitor for hypersensitivity reaction.

   Answer: B

   Rationale: The nurse should assess the prothrombin time (PT) and INR before administering the anticoagulant drug warfarin to the client. Observing for signs of thrombus formation, assessing for signs of bleeding, and monitoring for hypersensitivity reaction are the ongoing assessments performed in clients who are administered warfarin.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 3
   Cognitive Level: Apply
   Client Needs: Physiological Integrity: Pharmacological Therapies
   Integrated Process: Clinical Problem-solving Process (Nursing Process)
   Reference: p. 464, Preadministration Assessment

7. The nurse is teaching a young female about the prescribed anticoagulant. The nurse determines the session is successful when the client correctly indicates they will apply which recommendation?
   A) Avoid caffeinated drinks.
   B) Take the drug on an empty stomach.
   C) Use a reliable contraceptive.
   D) Take the drug with a glass of milk.

   Answer: C

Rationale: The nurse should instruct the female client to use a reliable contraceptive to prevent pregnancy. The nurse need not instruct the client to avoid caffeinated drinks, take the drug on an empty stomach, or take the drug with a glass of milk.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 5
Cognitive Level: Apply
Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 461, Precautions

8. The nurse is teaching a client about dietary concerns related to the administration of warfarin. The nurse determines the teaching session is successful when the client correctly points out that a consistent intake of which foods is necessary when using warfarin?
   A) Dairy products
   B) Root vegetables
   C) Green leafy vegetables
   D) Fruits and cereals

   Answer: C

   Rationale: The client should be aware that foods high in vitamin K can affect the effectiveness of warfarin. These foods include leafy green vegetables, beans, broccoli, cabbage, cauliflower, cheese, fish, and yogurt. Increased amounts of vitamin K could decrease the PT/INR and increase the risk of clot formation. Dairy products, root vegetables, fruits, and cereals are generally low in vitamin K. A diet that is very low in vitamin K may prolong the PT/INR and increase the risk of hemorrhage. The key to vitamin K management for clients receiving warfarin is maintaining a consistent daily intake of vitamin K. To avoid large fluctuations in vitamin K intake, clients receiving warfarin should be aware of the vitamin K content of food.
   Question format: Multiple Choice
   Chapter: 36
   Learning Objective: 5
   Cognitive Level: Apply
   Client Needs: Physiological Integrity: Pharmacological Therapies
   Integrated Process: Teaching/Learning
   Reference: p. 468, Educating the Client and Family

9. A nurse is conducting an assessment on a client who has recently undergone exploratory laparotomy. The nurse notes the continued order for enoxaparin. The nurse predicts this is to accomplish which goal?
   A) Repair damage to a blood vessel
   B) Prevent formation of a blood clot
   C) Encourage cessation of bleeding
   D) Prevent coagulation cascade

Answer: B

Rationale: This client has an increased risk for DVT and PE related to the major abdominal surgery. Enoxaparin is given subcutaneously prophylactically to help prevent the formation of a thrombus or blood clot. A thrombus refers to the formation of a blood clot, sometimes from damage, in a vessel that impedes blood flow. Cessation of bleeding refers to hemostasis. The coagulation cascade is the series of events that occur in the formation of a blood clot to stop bleeding. Hemostasis and the coagulation cascade are normal processes in the body.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 1
Cognitive Level: Analyze
Client Needs: Physiological Integrity: Physiological Adaptation
Integrated Process: Teaching/Learning
Reference: p. 469, Summary Drug Table

10. A nurse is assessing a client who is prescribed warfarin and notes a positive occult blood screen, petechiae on both legs, and blood-tinged toothbrush. The nurse anticipates the health care provider will prescribe which antidote to counteract these findings?
    A) Phytonadione
    B) Protamine
    C) Ticlopidine
    D) Tenecteplase

Answer: A

Rationale: This client is showing signs and symptoms of warfarin overdosage, which includes melena, petechiae, oozing from superficial injuries, such as cuts from shaving or bleeding from the gums after brushing the teeth, or excessive menstrual bleeding. These adverse reactions should be reported immediately to the health care provider so the proper antidote, phytonadione (vitamin K), can be ordered. Heparin overdosage is treated with protamine. Ticlopidine, an antiplatelet drug, and tenecteplase, a thrombolytic, would have no effect on counteracting the effects of warfarin.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 2
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 469, Summary Drug Table

11. The nurse is scheduled to administer the following medications at 0900: heparin subcutaneous, cefazolin IVPB, and atenolol PO. The morning labs are platelets 150,000 mcL, WBC 10,000 mcL, and APTT 100 seconds. Which is the nurse's **priority** in this situation?
    A) Place the client in supine position with legs elevated for BP 88/50 mm Hg.

B) Instruct client to use an electric razor and soft toothbrush.
C) Call primary care provider with APTT, BP 88/50 mm Hg, and recent void of red urine.
D) Determine if there has been an improvement in the infection.

Answer: A

Rationale: All the listed medications can interact with heparin, and increase the risk for bleeding. The nurse should place the client in supine position with legs elevated since the client is hypotensive, BP 88/50 mm Hg. Placing a client in this position will help increase the blood pressure by increasing the return of blood to the heart. Next, the nurse should call the primary care provider (PCP) about the abnormal APTT, BP 88/50 mm Hg, and the recent void of red urine. The PCP will provide orders regarding whether to hold heparin or administer a reduced dose of the anticoagulant later, and what to do about the atenolol since the blood pressure is low, and may order follow-up labs, hemoglobin and hematocrit, and urinalysis for blood. The other actions are appropriate when caring for a client receiving the list of medications listed, but are not as important considering that the client may be bleeding. When a client receives anticoagulation, the nurse should instruct the client to use an electric razor, and a soft toothbrush to decrease the risk for bleeding. The client is taking an antibiotic, so the nurse should determine if there is an improvement in the infection. The client should have body temperature return to normal, and a decrease in the white blood count, and the symptoms of the infection improve and disappear.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 2
Cognitive Level: Analyze
Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 466, Injury Risk

12. The nurse educates a client diagnosed with atrial fibrillation about the prescribed warfarin. Which client statements establish the need for further clarification?
A) "I will keep my lab appointments for a prothrombin and INR levels."
B) "I will take the warfarin the same time each day."
C) "I will not eat green leafy vegetables, broccoli, yogurt, or cheese."
D) "I will not drink alcohol unless alright with my primary care provider."

Answer: C

Rationale: The nurse needs to clarify teaching regarding the intake of foods rich in vitamin K. The client should not avoid eating foods with vitamin K, but eat consistent amounts every day so therapeutic levels for the warfarin may be maintained. The client has an adequate understanding of the importance of keeping lab appointments for PT and INR levels used to monitor and regulate the warfarin dosage. The client should take the warfarin the same time each day to maintain consistent blood levels of the drug. The client should not drink alcohol unless the primary care provider approves it and instructs the client as to how much and how often. Alcohol will increase the risk for bleeding.
Question format: Multiple Choice
Chapter: 36
Learning Objective: 5
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Teaching/Learning
Reference: p. 468, Educating the Client and Family

13. The nursing instructor is teaching a class about the actions of anticoagulants. The instructor determines the class is successful when the students correctly choose which as action(s) of anticoagulants? Select all that apply.
    A) Prevent formation of a thrombus
    B) Prevent extension of a thrombus
    C) Dissolve existing thrombi
    D) Thin the blood
    E) Can reverse the damage caused by a thrombus

    Answer: A, B

    Rationale: Anticoagulants can prevent the formation and extension of a thrombus but have no direct effect on an existing thrombus and do not reverse any of the damage from that thrombus. Although clients often refer to anticoagulants as blood thinners, they do not actually thin the blood.
    Question format: Multiple Select
    Chapter: 36
    Learning Objective: 2
    Cognitive Level: Understand
    Client Needs: Physiological Integrity: Pharmacological Therapies
    Integrated Process: Teaching/Learning
    Reference: p. 459, Oral and Parenteral Anticoagulants

14. After teaching a group of nursing students about heparins, the instructor determines that the teaching was successful when the students correctly choose which drug(s) as an example of a low–molecular-weight heparin (LMWH)? Select all that apply.
    A) Dalteparin
    B) Streptokinase
    C) Enoxaparin
    D) Warfarin
    E) Desirudin

Answer: A, C

Rationale: Dalteparin and enoxaparin are LMWHs. Streptokinase is a thrombolytic; warfarin is an oral anticoagulant; and desirudin is a direct thrombin inhibitor.
Question format: Multiple Select
Chapter: 36
Learning Objective: 2
Cognitive Level: Understand
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Teaching/Learning
Reference: p. 459, Oral and Parenteral Anticoagulants

15. The nurse is preparing a teaching session for a client who is being discharged with a prescription for clopidogrel. Which potential adverse reaction(s) should the nurse point out is associated with this drug? Select all that apply.
A) Skin rash
B) Bleeding
C) Heart palpitations
D) Nausea
E) Constipation

Answer: A, E

Rationale: The adverse reactions specifically associated with clopidogrel include skin rash, dizziness, chest pain, and constipation. General adverse reactions of all anticoagulants can include heart palpitations, bleeding, dizziness and headache, nausea, diarrhea, constipation, and dyspepsia.
Question format: Multiple Select
Chapter: 36
Learning Objective: 2
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Teaching/Learning
Reference: p. 469, Summary Drug Table

16. The nurse is preparing to administer an anticoagulant to several clients. The nurse should question this order if which disorder(s) is noted in the client's medical record? Select all that apply.
A) Leukemia
B) Hypotension
C) Atrial fibrillation
D) GI ulcers
E) Tuberculosis

Answer: A, D, E

Rationale: Anticoagulants are contraindicated in clients with known sensitivity to the drug, active bleeding (except when caused by DIC), hemorrhagic disease, tuberculosis, leukemia, uncontrolled hypertension, GI ulcers, recent eye or CNS surgery, aneurysms, and severe renal and hepatic disease and during pregnancy and lactation. They are also contraindicated in clients with a hypersensitivity to pork products. Hypotension may be an indication of a hypersensitivity or adverse reaction to argatroban and protamine. Clients with atrial fibrillation are often prescribed anticoagulants to help decrease the risk of thrombus formation.
Question format: Multiple Select
Chapter: 36
Learning Objective: 2
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 461, Contraindications

17. The nurse is conducting the preadministration assessment on a client with DVT who is prescribed an anticoagulant. Which assessment(s) should the nurse **prioritize**? Select all that apply.
    A) Test for a positive Homans sign.
    B) Examine extremity for skin temperature.
    C) Assess pain.
    D) Assess blood pressure.
    E) Check for pedal pulse.

    Answer: A, B, C, E

    Rationale: Preadministration assessment for a client with a DVT should include checking for a pedal pulse, examining the extremity for color and skin temperature, assessing for pain, and checking for a positive Homans sign. The nurse should carefully monitor the blood pressure after administering the anticoagulant as a decided drop in blood pressure or rise in the pulse may indicate internal bleeding and must be reported immediately to the health care provider so emergent treatment can be started.
    Question format: Multiple Select
    Chapter: 36
    Learning Objective: 3
    Cognitive Level: Apply
    Client Needs: Physiological Integrity: Pharmacological Therapies
    Integrated Process: Clinical Problem-solving Process (Nursing Process)
    Reference: p. 464, Preadministration Assessment

18. The nurse is teaching a client about the heparin which has been prescribed for a thrombus formation. Which information should the nurse **prioritize** in this teaching? Select all that apply.
    A) Onset of action is almost immediate.
    B) Maximum effect occurs within 10 minutes.
    C) It is preferably given intramuscularly.
    D) Clotting time returns to normal within 4 hours.
    E) It causes fewer adverse reactions than the oral form.

Answer: A, B, D

Rationale: Parenteral heparin results in an almost immediate onset of action with a maximum effect within 10 minutes, but clotting returns to normal within 4 hours unless subsequent doses are given. It is preferably given subcutaneously or intravenously. The parenteral form has more potential adverse reactions than the oral form.
Question format: Multiple Select
Chapter: 36
Learning Objective: 2
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 465, Parenteral Administration of Anticoagulants

19. The nurse is monitoring a client who is receiving intravenous heparin. Which assessment(s) should the nurse **prioritize** for this client? Select all that apply.
A) Inflammation
B) Pain
C) Tenderness
D) Clot formation
E) Itching

Answer: A, B, C, E

Rationale: The nurse inspects the needle site for signs of inflammation, pain, and tenderness along the pathway of the vein. If these occur, the infusion is discontinued and restarted in another vein. Itching may be a sign of hypersensitivity to the drug and should be investigated. The heparin is given to prevent clot formation.
Question format: Multiple Select
Chapter: 36
Learning Objective: 3
Cognitive Level: Apply
Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 465, Parenteral Administration of Anticoagulants

20. The student nurse is preparing to administer heparin subcutaneously to a client. The instructor determines the student is well prepared by articulating which step(s)? Select all that apply.
A) Hold the needle at a 45-degree angle
B) Pinch a fold of skin
C) Aspirate before injecting the drug
D) Apply firm pressure after injection
E) Change sites for each dose

Answer: B, D, E

Rationale: When administering a subcutaneous dose of heparin, the nurse picks a site that has not been use previously, pinches a fold of skin, holds the needle at a 90-degree angle, does not aspirate before injecting, and then applies firm pressure to the area after injection.
Question format: Multiple Select
Chapter: 36
Learning Objective: 5
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Teaching/Learning
Reference: p. 465, Parenteral Administration of Anticoagulants

21. The nurse is conducting the ongoing assessment of a client who is prescribed an anticoagulant. Which assessment(s) will the nurse **prioritize?** Select all that apply.
    A) Urinalysis
    B) Platelet count
    C) Blood count
    D) Stool analysis
    E) Ultrasound

    Answer: B, C, D

    Rationale: A complete blood count, platelet count, and stool analysis for occult blood may be ordered periodically throughout anticoagulant therapy. Urinalysis and ultrasound are not needed to monitor the effects of the anticoagulant.
    Question format: Multiple Select
    Chapter: 36
    Learning Objective: 3
    Cognitive Level: Apply
    Client Needs: Physiological Integrity: Pharmacological Therapies
    Integrated Process: Clinical Problem-solving Process (Nursing Process)
    Reference: p. 464, Ongoing Assessment

22. The nurse is conducting the ongoing assessment on a client who is prescribed an anticoagulant. The nurse will alert the health care provider if which finding(s) is noted on the assessment? Select all that apply.
    A) PT exceeds 1.5 times the control value.
    B) PT is less than 1.5 times the control value.
    C) There is evidence of bleeding.
    D) INR is less than 3.0.
    E) INR is greater than 3.0.

    Answer: A, C, E

Rationale: The nurse should withhold the drug and contact the health care provider if any of the following occur: the PT exceeds 1.5 times the control value, there is evidence of bleeding, or the INR is greater than 3.0.
Question format: Multiple Select
Chapter: 36
Learning Objective: 3
Cognitive Level: Apply
Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 464, Ongoing Assessment

23. The nurse is teaching a client and caregiver about the warfarin that has been prescribed to continue at home. The nurse determines the teaching session is successful when the client and caregiver correctly choose which instruction(s) to follow? Select all that apply.
A) Be consistent with your intake of foods containing vitamin K.
B) Do not change brands of warfarin without consulting the health care provider.
C) Take the drug at the same time every evening.
D) Do not take or stop taking other medications except on the advice of the health care provider.
E) Use prescribed antibiotics to prevent infection.

Answer: A, B, C, D

Rationale: Instructions would include being consistent with intake of foods containing vitamin K, not changing brands of the drug, taking the drug at the same time each evening, and not taking or stopping other medications. Individuals taking anticoagulants are at a greater risk of infection during the first 3 months of treatment; however, the use of prophylactic antibiotics is not recommended.
Question format: Multiple Select
Chapter: 36
Learning Objective: 5
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Teaching/Learning
Reference: p. 468, Educating the Client and Family

24. The nurse is teaching a client, who has been prescribed warfarin, about maintaining a consistent intake of foods with vitamin K. The nurse determines the client is prepared after correctly choosing which food(s) as high in vitamin K? Select all that apply.
A) Broccoli
B) Cauliflower
C) Fish
D) Yogurt
E) Chicken

Answer: A, B, C, D

Rationale: Foods high in vitamin K include leafy green vegetables, beans, broccoli, cabbage, cauliflower, cheese, fish, and yogurt. Chicken is not high in vitamin K.
Question format: Multiple Select
Chapter: 36
Learning Objective: 5
Cognitive Level: Analyze
Client Needs: Physiological Integrity: Reduction of Risk Potential
Integrated Process: Teaching/Learning
Reference: p. 468, Educating the Client and Family

25. The nurse is preparing to administer warfarin to a female client, who also uses oral contraceptives. Which assessment finding(s) should the nurse **prioritize**? Select all that apply.
    A) Bruising
    B) Blood in the stool
    C) Subtherapeutic INR
    D) Supratherapeutic INR
    E) Calf pain and warmth

    Answer: C, E

    Rationale: Coadministration of warfarin and oral contraceptives can result in a decreased anticoagulant effect, leading to subtherapeutic INR and increased chance of clotting (signs and symptoms of DVT or PE). Bruising, melena, and supratherapeutic INR are adverse reactions to anticoagulants.
    Question format: Multiple Select
    Chapter: 36
    Learning Objective: 2
    Cognitive Level: Apply
    Client Needs: Physiological Integrity: Reduction of Risk Potential
    Integrated Process: Clinical Problem-solving Process (Nursing Process)
    Reference: p. 461, Precautions

26. A nurse is examining a journal article about antiplatelet agents. Which drug(s) would the nurse expect to be evaluated? Select all that apply.
    A) Heparin
    B) Warfarin
    C) Abciximab
    D) Anagrelide
    E) Dipyridamole

    Answer: C, D, E

    Rationale: Abciximab, anagrelide, cilostazol, clopidogrel, eptifibatide, prasugrel, ticagrelor, ticlopidine, tirofiban, vorapaxar, and dipyridamole are antiplatelet agents. Heparin and warfarin are anticoagulants.
    Question format: Multiple Select

Chapter: 36
Learning Objective: 2
Cognitive Level: Understand
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 469, Summary Drug Table

27. The nurse is assessing the medical record of a client who is prescribed warfarin. After the client reports occasionally using herbal supplements, which herb(s) should the nurse caution the client to avoid? Select all that apply.
A) Aloe vera
B) St. John's wort
C) Ginkgo biloba
D) Ginger
E) Arnica

Answer: B, C, D

Rationale: Warfarin, a drug with a narrow therapeutic index, has the potential to interact with many herbal remedies. For example, warfarin should not be combined with any of the following substances because they may have additive or synergistic activity and increase the risk for bleeding: celery, chamomile, clove, dong quai, feverfew, garlic, ginger, ginkgo biloba, ginseng, green tea, onion, passionflower, red clover, St. John's wort, and turmeric. Aloe vera is often used to treat burns. Arnica is often used to sprains and bruising.
Question format: Multiple Select
Chapter: 36
Learning Objective: 2
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 462, Herbal Considerations

28. The nurse is caring for a postoperative client receiving dalteparin prophylactically to prevent deep vein thrombosis. The nurse should perform which ongoing assessment(s) for safe administration of the drug? Select all that apply.
A) Presence of dark tarry stools, or melena
B) Presence of pain, edema, redness in leg
C) Nasogastric drainage for presence of blood
D) Presence of dry mucous membranes
E) Ability to transfer from bed to chair

Answer: A, B, C

Rationale: The nurse assesses for any signs or symptoms of bleeding when safely administering an anticoagulant. The nurse would assess nasogastric secretions for the presence of blood, which could be coffee grounds, or bright red bloody drainage. The nurse would also assess for bowel movements that would suggest bleeding, including dark tarry stools, or melena. The nurse should assess for signs and symptoms of a deep vein thrombosis, which is a sudden onset of pain, redness, and edema in a leg. Assessing the client for dry mucous membranes or the ability to transfer from bed to chair is an important action postoperatively, but unrelated to the safe administration of the low–molecular-weight heparin, dalteparin.
Question format: Multiple Select
Chapter: 36
Learning Objective: 3
Cognitive Level: Apply
Client Needs: Physiological Integrity: Pharmacological Therapies
Integrated Process: Clinical Problem-solving Process (Nursing Process)
Reference: p. 464, Ongoing Assessment