

ACTIVE LEARNING TEMPLATE: *Medication*

STUDENT NAME _____

MEDICATION Heparin

REVIEW MODULE CHAPTER 25

CATEGORY CLASS Medication affecting coagulation

PURPOSE OF MEDICATION

Expected Pharmacological Action

Heparin is a parenteral anticoagulant which prevents clotting by activating antithrombin, thus indirectly inactivating both thrombin and factor Xa. This inhibits fibrin formation.

Therapeutic Use

heparin is very crucial in Conditions necessitating prompt anticoagulant activity (evolving stroke, pulmonary embolism, massive deep-vein thrombosis). An adjunct for clients having open heart surgery or renal dialysis. Low-dose therapy for prophylaxis against postoperative venous thrombosis and Treatment of disseminated intravascular coagulopathy

Complications

Hemorrhage secondary to heparin overdose. Heparin induced thrombocytopenia. Hypersensitivity reactions (chills, fever, urticaria). Toxicity/overdose

Medication Administration

Heparin cannot be absorbed if administered orally thus must be given via subcutaneous injection or IV infusion

Contraindications/Precautions

Heparin as a parenteral anticoagulant which are contraindicated in patients with thrombocytopenia or a bleeding disorder. It also should not be used during or following surgeries of the eye(s), brain, or spinal cord; lumbar puncture; or regional anesthesia. It should be used with caution in patients who have hemophilia, increased capillary permeability, dissecting aneurysm, peptic ulcer disease, severe hypertension, hepatic or kidney disease and threatened abortion.

Nursing Interventions

Monitor vital signs, avoid concurrent use with other antiplatelet agents, Monitor platelet count periodically throughout treatment, Administer a small test dose prior to the administration of heparin.

Interactions

Heparin interacts with antiplatelet agents such as aspirin, non steroidal anti-inflammatory drugs (NSAIDs), and other anticoagulants can increase risk for bleeding.

Client Education

Instruct clients to monitor for indications of bleeding such as bruising, gums bleeding, abdominal pain, nose bleeds, coffee-ground emesis, and tarry stools. Instruct clients to avoid the use of over-the-counter (OTC) NSAIDs, aspirin, or medications containing salicylates. Advise clients to use an electric razor for shaving and to brush with a soft toothbrush

Evaluation of Medication Effectiveness

Depending on therapeutic intent, effectiveness can be evidenced by; Heparin aPTT levels of 60 to 80 seconds and no development of venous thrombi or emboli.