

Heparin Indications

Heparin is an anticoagulant medication, which is a cofactor for antithrombin, working to inactivate the coagulation factors IIa (Thrombin) and Xa. It is indicated for use in acute coronary syndrome, atrial fibrillation, pulmonary embolisms, and prophylaxis in hypercoagulable states. Heparin does not cross the placenta, posing no risk to the fetus, and is commonly used for anticoagulation in pregnant patients.



PLAY PICMONIC

Indications

Acute Coronary Syndrome (ACS)

Acute-angle Heart

Acute coronary syndrome refers to symptoms induced by obstruction of coronary arteries. Etiologies of ACS include unstable angina, STEMI or NSTEMI. Heparin is indicated to help break clots (thrombolysis) in cases of non-ST elevation MI (NSTEMI).

Prophylaxis

Purple-axes

Heparin is used as a prophylactic agent against thrombosis or clots in cases where patients are immobile, hypercoagulable or susceptible to serious complications of thrombosis. Examples of this include patients with risk of or previous DVTs, patients undergoing surgery, and immobile patients.

Pulmonary Embolism

Lungs Elmo

Though thrombolysis is a goal of treatment in pulmonary embolism, another acute method of stabilizing patients is to keep the thrombi from getting bigger. Heparin is used to prevent expansion of these thrombi.

Atrial Fibrillation

Atria-heart Alarm-clock

In atrial fibrillation, patients are overwhelmed by disorganized electrical impulses, leading to an arrhythmia and an increased risk of hematologic stasis. Patients who are at an increased risk for stroke and embolism are often anticoagulated with heparin.

Used during Pregnancy

Pregnant-woman

Physiologically, pregnant patients may become hypercoagulable, as a physiologic mechanism to prevent post-partum hemorrhage. Heparin does not cross the placenta, and is safe in the developing fetus. Heparin is used as antithrombotic treatment both before and during pregnancy, in patients who are hypercoagulable or need prophylaxis.