0.3 to 0.7 anti-Xa U/mL typically correspond to aPTT values between 1.8 and 2.5 times greater than the patient's baseline PTT (before starting heparin) or the mean PTT of a control population.

Most of the commonly used laboratory tests of soluble coagulation measure the kinetics of the initiation phase only. The PT and PTT have as their end points the first appearance of fibrin gel, which occurs when less than 5% of the total reaction has been completed and when only minimal levels of prothrombin have been activated. The PT and PTT are very sensitive for detecting congenital abnormalities associated with severe factor deficits (e.g., hemophilia) and for guiding heparin and warfarin therapy. However, these tests fail to give information relevant to thrombin generation during the propagation phase, which determines whether a persistent clot forms or the endogenous anticoagulants and fibrinolytic regulators constrain it from excess growth.

In surgical settings and in intensive care units, there is a need for immediate turnaround in coagulation testing. One specific point-of-care test used for coagulation testing is thromboelastometry (TEG). TEG uses whole blood to detect hyperfibrinolysis and can also assess for platelet dysfunction. As the whole blood begins to solidify in the presence of a prothrombotic agent (e.g., kaolin) a detector collects information about the speed and strength of clot formation.

SUGGESTED READINGS

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