The presence of unfractionated and some low-molecular-weight heparin can cause prolongation of thrombin time.

The larger forms of heparin, which prolong thrombin time, can be neutralized by the addition of protamine sulphate (PS). Protamine sulphate is available from many hospital pharmacies, where it is used as a therapeutic agent for reversal of heparin effect.

The concentration of drug in therapeutic preparations is normally much higher than is useful for laboratory testing purposes. Therefore, if necessary, the drug should be diluted in saline to a concentration of 40 mg% as a working solution. A working solution of thrombin with PS is prepared by mixing nine parts of thrombin reagent with one part of 40 mg% PS. This is then used in place of the thrombin solution described in Section 15. A normal control should be analysed. If the thrombin time is prolonged but corrects to within two seconds of control result, the presence of heparin is confirmed.