



Assessment the Quality of Cryoprecipitate in Blood Transfusion Center, Khon Kaen University

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Background and Objective: Cryoprecipitate is the plasma-derived product that contains the highest concentration of fibrinogen, factor VIII, von Willebrand factor, factor XIII and fibronectin. Cryoprecipitate is indicated for the treatment of specific factor deficiencies (eg. Factor VIII for Hemophilia A). The clotting factors in cryoprecipitate are labile very easy. A good manufacture and storage of cryoprecipitate is necessary. The aim of this study was to evaluate the quality of cryoprecipitate that produced in the Blood Transfusion Center, Faculty of Medicine, Khon Kaen University.

Method: Four cryoprecipitates from the same blood group were pooled, approximately 4 pools per month. Quantitative determination of Factor VIII activity was based on activated partial thromboplastin time and used the Clauss method to detect fibrinogen. The data were collected from January 2014 to July 2014.

Result: Totally, 32 pooled of cryoprecipitates consisted of 8 pooled in each group were included. The mean of factor VIII in group A, B, O and AB cryoprecipitates were 109.3, 121.5, 109.8 and 132.4 IU/unit, respectively. The mean of fibrinogen in group A, B, O and AB cryoprecipitates were 244.4, 270.4, 286.9 and 293.1 mg/unit, respectively. Factor VIII and fibrinogen in blood group AB showed highest concentration compare to other groups.

Conclusion: Requirement for cryoprecipitate by the Food and Drug Administration (FDA) the products should contain ≥ 80 IU for factor VIII and ≥ 150 mg for fibrinogen per unit. Based on the result, the cryoprecipitates in our Blood Center are qualified as standard FDA. Ensuring that this product can be taken to treat the patients effectively.

Key words : Cryoprecipitate, Factor VIII, Fibrinogen

