HEMOLYSIS - QUALITY CONTROL PARAMETER FOR BLOOD PRODUCTS ERYTHROCYTE.

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Background:
Hemolysis test is an important parameter of quality control for whole blood and red cell concentrates.
It performs storage at the end of the above products.
Testing is done through the HemoCue Plasma / Low Hb.
The results demonstrate the connection between hemolysis and observing the storage of blood products.
Materials, methods, results:
To test for hemolysis use two devices - a haematological automatic analyzer – Nikohn and a HemoCue microcuvettes analyzer Plasma / Low Hb.
At first analyzer measurements are made in total blood sample or red cells. The sample is harvested respecting the conditions of sampling, the blood component bag tested.
It will work: hemoleucogram retaining our study of hemoglobin and hematocrit value, on haematological automatic analyzer – Nikohn.
The HemoCue Analyzer, determining free Hb from a sample of plasma. The sample is harvested in the same bag the blood component (in the same conditions) is centrifuged (15 minutes at 1500 rpm), and the determination of the free hemoglobin will be obtained in g / dl.
Hemolysis is calculated using the formula: plasma Hb x (100 - Ht) / Hb
Control will be accepted value $\leq 0.8\%$ of hemolysis red blood cells.
Conclusions:
This control parameter, hemolysis, depends of the intensity red cell metabolism during storage. In particular metabolism is influenced by the temperature of storage of the blood component.
Red cell concentrates, whole blood must be kept at a controlled temperature between + 2 ° C and + 6 ° C. The storage time depends on the solution of anticoagulant / preservative used.
For example, the shelf life in CPDA-1 is 35 days and anticoagulant system / additive storage time may be extended to 42 days.