

## Plasma lactate concentration monitoring in blood transfusion requiring anemic patients

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Transfusion therapy in anemic patients is frequently applicable method. But transfusion indicator is incomplete. Previous established indices are RBC, HCT and clinical signs of anemia. If a patient suffers from anemia, the body produces compensatory response. For example, splenic contraction causes a blood to normocytic-normochromic status. Therefore these indices are inaccurate. For that reason, we must have accurate index for hypoxia in anemic patients. Lactate level increase in anaerobic metabolism in tissue hypoxia. It is important that transfusion therapy should be at an appropriate time and accurate RBC contents. Lactate is assayed in lithium heparin tube plasma within 30 minutes blood collection. Twenty three anemic patients with lactate monitoring apply transfusion in Royal Animal Medical Center. There are primary or secondary immune mediated hemolytic anemia of fourteen cases, oxidative injuries of five cases and bone marrow disease of two cases including idiopathic erythroid or megakaryocytic aplasia/hypoplasia. Elevation of lactate concentration indicates accurate transfusion time. So minimal efficient transfusion carry into effect compare with before. In result, lactate concentration measurement is considered to be an easily applicable and useful method for determining transfusion time.

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