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In Vivo Hemolysis due to Patient Factors

Factors and Their Possible Consequences:

Metabolic disorders (e.g., Liver disease), chemical agents (e.g., Medication, depending on dosage), physical agents (e.g., Mechanical heart valves) and infectious agents (e.g., Bacteria) may increase the fragility of red blood cells (RBC) and cause RBC rupture.

DIC (Disseminated Intravascular Coagulation), burns, blood substitutes, and hemolytic anemia (sickle cell anemia) may also cause RBC rupture.

Corrective Actions

- Check patient's medical history and current status for possible cause.
- Know which analytes are sensitive to *in vivo* hemolysis (e.g., potassium, lactate dehydrogenase).

Reference:

1. Kazmierczak SC. Interferences of hemolysis, lipemia and high bilirubin on laboratory tests. In: Accurate Results in the Clinical Laboratory: A Guide to Error Detection and Correction. Dasgupta A, Sepulveda JL, eds. Cambridge, MA: Elsevier, 2019.