

Nonimmune hemolytic transfusion reactions are due to red cell destruction by transfusing PRBCs at the same time as hypertonic or hypotonic IV fluids or medications, by thermal damage 152 Vignettes in Patient Safety – Volume 1 from warmers or freezers or mechanical damage from cardiopulmonary bypass pumps, extracorporeal membranous oxygenation pumps, or continuous renal replacement therapy [9]. Other considerations regarding adverse blood transfusion reactions include hypothermia, electrolyte abnormalities, and infectious diseases. Trauma patients or patients who are already hypothermic prior to transfusion should ideally receive blood via a warmer. Patients with renal disease or preexisting electrolyte abnormalities should be closely monitored for signs of hyperkalemia or hypocalcemia, including cardiac monitoring during and after transfusion. Although rare, bacterial, or viral contamination of blood products can occur. Proper collection, storage, and administration of blood products are keys in limiting bacterial contamination. All blood products undergo vigorous screening for viral diseases including hepatitis B and C, cytomegalovirus (CMV) and human T-cell lymphotropic virus type 1 (HTLV-1) prior to administration. The overall incidence of blood-borne pathogen transmission during transfusion is low [9].