

Transfusion Reactions

Type	Timing	Symptoms	Cause
Anaphylactic	Minutes-3hrs	Urticaria, wheeze, hypoT	Type 1 HSR against plasma proteins in transfused blood, IgA-deficient pts.
Acute hemolytic	<1 hr	Fever, hypoT , tachy, flank pain, jaundice, hemoglobinuria	Can be intra or extravascular hemolysis. ABO incompatibility is intravasc w/ hemoglobinuria, host atb against donor RBC atgs is extravasc w/ jaundice
Febrile nonhemolytic	1-6hrs	Fever , HA, chills, flushing	Host atbs against donor HLA/WBCs or cytokines from storing blood
TRALI	<6 hrs	Noncardiogenic pulm edema, SOB	Donor atbs again recipient's neutrophils and lung cells

Fever with hemodynamic changes = acute hemolytic

Fever while HDS = febrile nonhemolytic

Hemolytic Transfusion Reaction

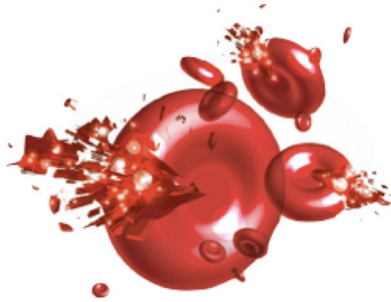
The most serious transfusion reaction

ABO Incompatibility

Lysis of
transfused RBCs

Hemoglobinemia
and Hemoglobinuria

Immediate fever and chills
Headache
Nausea/vomiting
Myalgias
Dark urine
Hypotension



Management

- 1 Stop the transfusion
- 2 Immediate vigorous crystalloid infusion
- 3 Diuretic therapy to maintain urine output 1 to 2 mL/kg/hr