Immediate Reactions		
Hemolytic reactions Most severe type but rare Incompatible blood Incompatibility in multiple transfusions	Sudden, severe headache Chills Shaking Fever Pain at needle site and along venous tract Nausea and vomiting Sensation of tightness in chest Red or black urine Flank pain Progressive signs of shock or renal failure	Identify donor and recipient blood types and groups before transfusion is begun; verify with another nurse or practitioner. Transfuse blood slowly for the first 15 to 20 minutes or initial 20% of blood volume; remain with patient. Stop transfusion immediately in event signs or symptoms occur, maintain patent IV line, and notify practitioner. Save donor blood to recrossmatch with patient's blood. Monitor for evidence of shock. Insert urinary catheter and monitor hourly outputs. Send samples of patient's blood and urine to laboratory for presence of hemoglobin (indicates intravascular hemolysis). Observe for signs of hemorrhage resulting from DIC. Support medical therapies to reverse shock.
Febrile reactions Leukocyte or platelet antibodies Plasma protein antibodies	Fever Chills	May give acetaminophen for prophylaxis. Leukocyte-poor RBCs are less likely to cause reaction. Stop transfusion immediately; report to practitioner for evaluation.
Allergic reactions Recipient reaction to allergens in donor's blood	Urticaria Pruritus Flushing Asthmatic wheezing Laryngeal edema	Give antihistamines for prophylaxis to children with tendency to allergic reactions. Stop transfusion immediately. Administer epinephrine for wheezing or anaphylactic reaction.
Circulatory overload Too rapid transfusion (even a small quantity) Transfusion of excessive quantity of blood (even slowly)	Precordial pain Dyspnea Rales Cyanosis Dry cough Distended neck veins Hypertension	Transfuse blood slowly. Prevent overload by using packed RBCs or administering divided amounts of blood. Use infusion pump to regulate and maintain flow rate. Stop transfusion immediately if there are signs of overload. Place child upright with feet in dependent position to increase venous resistance.
Air emboli May occur when blood is transfused under pressure	Sudden difficulty in breathing Sharp pain in chest Apprehension	Normalize pressure before container is empty when infusing blood under pressure. Clear tubing of air by aspirating air with syringe at nearest Y connector if air is observed in tubing; disconnect tubing and allow blood to flow until air has escaped only if a Y connector is not available.
Hypothermia	Chills Low temperature Irregular heart rate Possible cardiac arrest	Allow blood to warm at room temperature (<1 hour). Use approved mechanical blood warmer or electric warming coil to warm blood rapidly; never use microwave oven. Take temperature if patient complains of chills; if subnormal, stop transfusion.
Electrolyte disturbances Hyperkalemia (in	Nausea, diarrhea Muscular weakness	Use washed RBCs or fresh blood if patient is at risk.