

# Acute Transfusion Reactions

Signs and symptoms	Possible etiology	Action	Investigation
<b>Dyspnoea, ↓O<sub>2</sub> saturation</b>			
<b>With/without hypertension, tachycardia, signs of fluid overload</b>	TACO (transfusion associated circulatory overload)	<b>Stop transfusion</b> Sit patient upright Diuretics, O <sub>2</sub>	Reaction form and group and save (G&S) Chest X-ray may be helpful
<b>With/without hypotension</b>	TRALI (transfusion-related acute lung injury) <b>▲ May become a medical emergency</b>	<b>Stop transfusion</b> Assess chest X-ray for infiltrates O <sub>2</sub> , possible intubation, ventilation Notify lab and Lifeblood	Reaction form and G&S HLA & HNA antibodies and typing
	Bacterial contamination or acute haemolytic transfusion reaction <b>▲ May become a medical emergency</b>	<b>Stop transfusion</b> Check patient ID with label IV antibiotics if sepsis Maintain good urine output Notify lab and Lifeblood for bacterial contamination	Culture patient and product Reaction form, G&S and DAT If haemolysis suspected – FBE, LDH, bilirubin, haptoglobin, coags, electrolytes, urinalysis

# Acute Transfusion Reactions

Signs and symptoms	Possible etiology	Action	Investigation
<b>Fever (<math>\geq 38^{\circ}\text{C}</math> and rise <math>\geq 1^{\circ}\text{C}</math>) and/or chills, rigors</b>			
<b>No other symptoms</b>	Febrile non-haemolytic transfusion reaction	<b>Stop transfusion</b> Exclude serious adverse events Antipyretics Recommence if reaction subsides	Reaction form to transfusion lab
<b>Other symptoms present (e.g. hypotension, tachycardia)</b> or <b><math>\geq 39^{\circ}\text{C}</math></b>	Bacterial contamination or acute haemolytic transfusion reaction <b>▲ May become a medical emergency</b>	<b>Stop transfusion</b> Check patient ID with label Initiate basic life support IV antibiotics if sepsis Notify lab and Lifeblood for bacterial contamination	Culture patient and product Reaction form, G&S and DAT If haemolysis suspected – FBE, LDH, bilirubin, haptoglobin, coags, electrolytes, urinalysis
<b>Rash or urticaria (hives)</b>			
<b>&lt; 2/3 body (no other symptoms)</b>	Minor allergic	<b>Stop transfusion</b> Antihistamine Recommence if reaction subsides	None
<b>&gt; 2/3 body (no other symptoms)</b>	Severe allergic	<b>Stop transfusion</b> Antihistamine +/- corticosteroid	Reaction form
<b>With dyspnoea, airway obstruction, angioedema, hypotension</b> <b>▲ This is a medical emergency</b>	Anaphylaxis (consider IgA deficiency)	<b>Stop transfusion</b> Adrenaline Initiate basic life support	Reaction form Perform haptoglobin and IgA level and antibody