

Acute Transfusion Reactions

Signs and symptoms	Possible etiology	Action	Investigation
Dyspnoea, ↓O₂ saturation			
With/without hypertension, tachycardia, signs of fluid overload	TACO (transfusion associated circulatory overload)	Stop transfusion Sit patient upright Diuretics, O ₂	Reaction form and group and save (G&S) Chest X-ray may be helpful
With/without hypotension	TRALI (transfusion-related acute lung injury) ▲ May become a medical emergency	Stop transfusion Assess chest X-ray for infiltrates O ₂ , possible intubation, ventilation Notify lab and Lifeblood	Reaction form and G&S HLA & HNA antibodies and typing
	Bacterial contamination or acute haemolytic transfusion reaction ▲ May become a medical emergency	Stop transfusion 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
Fever ($\geq 38^{\circ}\text{C}$ and rise $\geq 1^{\circ}\text{C}$) and/or chills, rigors			
No other symptoms	Febrile non-haemolytic transfusion reaction	Stop transfusion Exclude serious adverse events Antipyretics Recommence if reaction subsides	Reaction form to transfusion lab
Other symptoms present (e.g. hypotension, tachycardia) or $\geq 39^{\circ}\text{C}$	Bacterial contamination or acute haemolytic transfusion reaction ▲ May become a medical emergency	Stop transfusion 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
Rash or urticaria (hives)			
< 2/3 body (no other symptoms)	Minor allergic	Stop transfusion Antihistamine Recommence if reaction subsides	None
> 2/3 body (no other symptoms)	Severe allergic	Stop transfusion Antihistamine +/- corticosteroid	Reaction form
With dyspnoea, airway obstruction, angioedema, hypotension ▲ This is a medical emergency	Anaphylaxis (consider IgA deficiency)	Stop transfusion Adrenaline Initiate basic life support	Reaction form Perform haptoglobin and IgA level and antibody