



# ACUTE TRANSFUSION REACTIONS

SIGNS AND SYMPTOMS		ACTION	CAUSES AND INVESTIGATIONS	CLINICAL MANAGEMENT
 FEVER	MILD REACTION	  RECOGNISE REACT REPORT  1. <b>STOP TRANSFUSION</b> activate emergency procedures if required  2. <b>CHECK VITAL SIGNS</b> respiration, pulse, BP, temperature and urine output  3. <b>MAINTAIN IV ACCESS</b> but do not flush existing line  4. <b>REPEAT ALL CLERICAL AND IDENTITY CHECKS</b> of the patient and blood product  5. <b>NOTIFY</b> medical staff and transfusion laboratory  6. <b>COLLECT</b> blood and urine samples. Save blood pack and IV line for culture if required  7. <b>COMMENCE SPECIFIC CLINICAL MANAGEMENT</b>  8. <b>DOCUMENT</b> reaction in patient's chart and complete incident report as per institution policy	FNHTR	<b>FNHTR (febrile non-haemolytic transfusion reaction)</b> 1. Exclude serious or severe reaction 2. Give antipyretic and <b>restart transfusion slowly</b> if reaction subsides and product still viable 3. If no improvement or worsening of symptoms, <b>stop transfusion</b> and <b>do not restart transfusion</b> , and investigate for a severe reaction
	SEVERE REACTION		SEVERE FNHTR or TTBI or AHTR	<b>SEVERE FNHTR (febrile non-haemolytic transfusion reaction):</b> see above FNHTR  <b>TTBI (transfusion-transmitted bacterial infection)</b> 1. <b>Do not restart transfusion</b> 2. Take cultures and if TTBI suspected, start broad-spectrum IV antibiotics, IV fluids and inotropes to provide cardiovascular support and maintain urine output 3. Send implicated unit(s) to the transfusion laboratory for urgent culture and Gram stain; notify the Blood Service to ensure quarantine and testing of components from same donation(s)  <b>AHTR (acute haemolytic transfusion reaction)</b> 1. <b>Do not restart transfusion</b> 2. IV fluids and inotropes to maintain blood pressure and urine output. Induced diuresis is often needed 3. For further transfusions consider consultation with haematologist
ACUTE ONSET SHORTNESS OF BREATH (DYSPNOEA, DECREASED O <sub>2</sub> SATURATION)	TTBI or AHTR or ANAPHYLAXIS		<b>TTBI (transfusion-transmitted bacterial infection):</b> see above <b>AHTR (acute haemolytic transfusion reaction):</b> see above <b>ANAPHYLAXIS:</b> see below	
ACUTE ONSET SHORTNESS OF BREATH (DYSPNOEA, DECREASED O <sub>2</sub> SATURATION)	TACO		<b>TACO (transfusion associated circulatory overload)</b> 1. <b>Do not restart transfusion</b> 2. Give oxygen, diuretics and sit patient upright 3. Future transfusion in susceptible patients (i.e. paediatric or elderly patients, severely anaemic or CHD): infuse slowly and consider diuretic	
ACUTE ONSET SHORTNESS OF BREATH (DYSPNOEA, DECREASED O <sub>2</sub> SATURATION)	TRALI		<b>TRALI (transfusion-related acute lung injury)</b> 1. <b>Do not restart transfusion</b> 2. Provide cardiovascular and airway support; give oxygen and ventilation as necessary; diuretics are not beneficial and may worsen TRALI 3. Notify the Blood Service to ensure quarantine and testing of components from the same donor(s)	
< 2/3 BODY	MINOR ALLERGIC REACTION		<b>MINOR ALLERGIC REACTION</b> 1. Give antihistamine and <b>restart transfusion slowly</b> if reaction subsides and if product still viable 2. If no improvement or worsening of symptoms, <b>stop transfusion</b> and manage as a <b>severe allergic reaction</b> 3. Consider premedication with antihistamine for future transfusions if recurrent minor allergic reactions occur	
> 2/3 BODY	SEVERE ALLERGIC REACTION		<b>SEVERE ALLERGIC REACTION</b> 1. <b>Do not restart transfusion</b> 2. Give antihistamine and corticosteroid as required 3. If recurrent severe allergic reactions occur, consider premedication with antihistamine or transfusing with plasma-depleted or washed products	
URTICARIA OR RASH	ANAPHYLAXIS		<b>ANAPHYLAXIS</b> 1. <b>Do not restart transfusion</b> 2. Maintain airway and blood pressure. Resuscitate with IV fluids, oxygen, adrenaline, antihistamine and corticosteroid as required 3. To prevent recurrence, consider corticosteroid and antihistamine premedication. If IgA-deficiency with anti-IgA present, consider IgA-deficient or washed products 4. For further transfusions consider consultation with haematologist	