

MANAGEMENT OF ACUTE TRANSFUSION REACTION

A

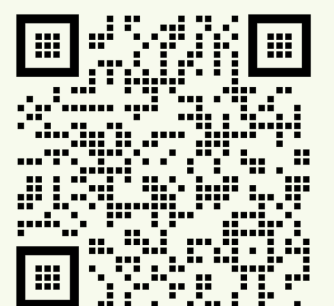
FLOWCHART

Symptoms & Signs of Acute Transfusion Reaction

Fever | Chills | Rigor | Rash | Urticaria | Pruritus | Flushing | Restlessness | Localized Oedema | Nausea | Vomiting | SOB | Wheeze | Cyanosis | Chest pain | Abdominal pain
 Bone pain | Muscle pain | Pain at infusion site | Feeling of impending doom
 Hypotension | Hypertension | Respiratory distress | Dark coloured urine

- 1 Stop transfusion & inform Doctor
- 2 Record vital signs & Asses Severity
- 3 Keep IV line open with normal saline
- 4 Tally info
 - i - Patient
 - ii - Blood bag
 - iii - Blood Card
- 5 Visual inspection of blood bag
 - i - Clot
 - ii - Discolouration
 - iii - Haemolysis

FOR MORE INFO ON 5 SCAN BELOW!



MILD

- Isolated temperature $<39^{\circ}\text{C}$ OR Rise $<2^{\circ}\text{C}$
- Pruritus +/- Urticaria

- 1 Stop transfusion temporarily
- 2 Symptomatic management (Refer Part B)
- 3 Observe for 30 minutes

Symptom resolved

Symptom not resolved

- 1 Resume transfusion
- 2 Close vital signs monitoring

Symptom resolved

Symptom reappears

- 1 Finish Transfusion
- 2 Inform Transfusion Medicine MO
- 3 Send transfusion reaction workup (Refer Part C)

MODERATE/SEVERE/INFORMATION NOT TALLY / ABNORMAL VISUAL INSPECTION OF BLOOD PRODUCT

- 1 DISCONTINUE transfusion
- 2 Symptomatic management (Refer Part B). Resuscitate if needed
- 3 Inform Transfusion Medicine MO/Specialist
- 4 Send samples for transfusion reaction workup (Refer Part C)
- 5 Send FBC, RP, LFT, UFEME



B SYMPTOMATIC MANAGEMENT

1 Febrile Non Haemolytic Transfusion Reaction (FNHTR)

- Temperature rise \geq to 1 degree C but temperature $<$ 39 degree C
- 1. Antipyretic
- 2. Slow transfusion

2 Mild Allergy

- Rash/ urticaria/pruritus / flushing without other sign
- 1. Antihistamine
- 2. Slow transfusion

3 Moderate Allergy

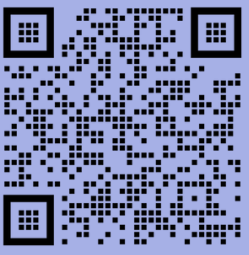
- Mild + wheeze/angioedema without Respiratory compromise/Hypotension
- 1. Antihistamine
- 2. +/- Hydrocortisone
- 3. Oxygen supplementation
- 4. Neb bronchodilator (If wheeze)

4 Severe Anaphylaxis

- Moderate + Respiratory/ Cardiovascular compromise
- 1. Adrenaline
- 2. Antihistamine
- 3. Hydrocortisone
- 4. Neb bronchodilator (if wheeze)
- 5. +/- H2 Blocker
- 6. Send additional investigation:

i. Blood gas
ii. Chest X-Ray
iii. Serum IgA level

Anaphylaxis Management Flowchart



5 Bacterial Contamination

- Temperature rise \geq to 2 degree C or temperature \geq to 39 degree C, discolouration of blood bag
- 1. Change blood administration set
- 2. Ensure adequate hydration
- 3. Broad spectrum antibiotic
- 4. Treat DIC with appropriate blood component
- 5. Send additional investigation: Blood C+S

6 Haemolytic Transfusion Reaction

- Information discrepancy, clot in blood bag, Feeling of impending doom, Abdomen/chest/muscle pain, dark coloured urine, fever, hypotension
- 1. Ensure adequate hydration
- 2. +/- Fluid challenge/ Diuretic to maintain good urine flow
- 3. Obtain expert (Nephrologist) advice if AKI is likely
- 4. IV adrenaline (according to clinical response)
- 5. IV hydrocortisone
- 6. Treat DIC with appropriate blood components
- 7. Send following samples:
 - Immediate post transfusion (Sample 1)
 - If needed only, 24 hours post-transfusion (sample 2)

i. 10ml of blood in EDTA to transfusion medicine lab	ii. FBC, RP, LFT, UFEME	iii. Peripheral Blood Film	iv. Coagulation profile
	v. Serum LDH	vi. Reticulocyte count	

8 Transfusion Related Acute Lung Injury (TRALI)

- SOB, Hypotension, fever
- 1. Oxygen supplementation
- 2. Treat hypotension with fluid administration & inotrope if necessary
- 3. Send additional investigation

i. Blood Gas
ii. Chest X-Ray
iii. TRALI investigation:



7 Transfusion Associated Circulatory Overload (TACO)

- SOB, Hypertension, Overload symptom
- 1. Upright position
- 2. Oxygen supplementation
- 3. Diuretic
- 4. Send additional Investigation:

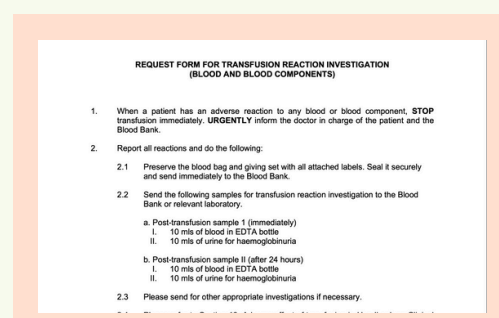
i. Blood Gas
ii. Chest X-Ray

6 Transfusion Associated Dyspnea (TAD)

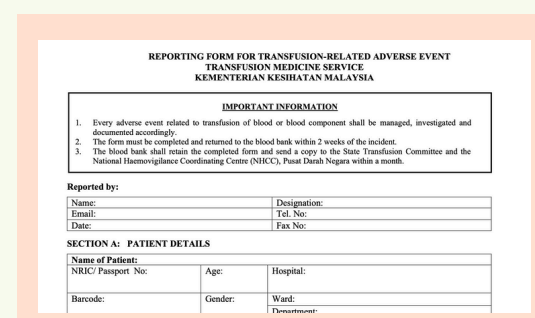
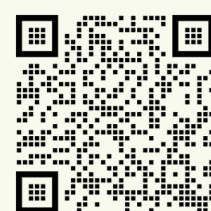
- SOB
- 1. Oxygen supplementation
- 2. Send additional investigation:

i. Blood Gas
ii. Chest X-Ray

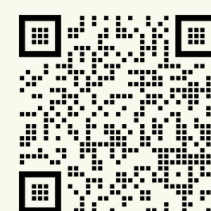
C TRANSFUSION REACTION WORKUP



1. Request Form for Transfusion Reaction Investigation



2. Reporting Form for Transfusion Related Adverse Event



3. 10mL of blood in EDTA tube



4. Return sealed blood bag with all attached labels to Transfusion Medicine Laboratory

For further info, please scan the following QR code:

