# Acute Transfusion Reaction (ATR) - Notification to Blood Bank

## Transfusion Details

<table>
<thead>
<tr>
<th>Date / time transfusion started:</th>
<th>Volume transfused (mL or units)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date / time transfusion reaction detected:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Donation/unit number(s) on the implicated blood component(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which blood component(s) were administered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Cells</td>
</tr>
</tbody>
</table>

*If the reaction was to a fractionated plasma product (e.g. IVIg), use the form 111F003 available from Blood Bank or www.nzblood.co.nz

## Clinical History

### Patient's diagnosis and reason for transfusion:

Will further blood component support be required in the next 24 hours?  
- [ ] Yes
- [ ] No
- [ ] Unknown

## Patient Vital Signs/Observations

### Baseline (pre starting unit)  
- RR:  
- SpO₂:  
- R/A or % or L
- HR:  
- BP:  
- Temp: °C

### At time of reaction  
- RR:  
- SpO₂:  
- R/A or % or L
- HR:  
- BP:  
- Temp: °C

## Signs and Symptoms - tick all that apply.

- Temperature > 38°C and < 1.5°C from baseline with no other symptoms  
- Localised rash with no other symptoms

Select only one box above

If additional symptoms are present you must complete the moderate/severe reaction section

After medical review: Send this form to Blood Bank. No blood tests are required.

- Pyrexia/fever
- Rigors / Chills
- Tachycardia
- Bradycardia
- Hypertension
- Hypotension
- Hypoxia
- Cough
- Restless/Angiostenosis
- Tachypnoea
- Dyspnoea
- Anoedema
- Wheeze +/- Stridor
- Extensive rash or urticaria
- Angioedema
- Chest and /or Loin Pain
- Extensive flushing
- Elevated JVP
- Pulmonary oedema
- LOC change
- Red/black urine
- Abnormal bleeding
- Pain at IV site
- Jaundice
- Abnormal bleeding
- Diarrhoea
- Nausea
- Vomiting

## Clinical interventions/medications to manage reaction?

Send Standard ATR Investigations:

- TO BLOOD BANK: implicated unit/IV set, hand-labelled pink top sample & this form. Include a completed NZBS request form if further transfusion is likely.
- TO PATHOLOGY: FBC, blood film & UE
- WARD urinalysis

## Additional Investigations?

- Haptoglobin, LDH, coagulation screen (if evidence of haemolysis)
- CXR, ABGs, BNP (if respiratory distress)
- Serum tryptase +/- anti-IgA antibodies (if severe allergy/anaphylaxis)
- Blood cultures (if sepsis / shock possible or present)
ACUTE TRANSFUSION REACTIONS


PATIENT HAS SIGNS AND SYMPTOMS SUGGESTIVE OF POTENTIAL TRANSFUSION REACTION

STOP
the transfusion immediately

Assess: rapid clinical assessment
Check: confirm patient ID band matches blood swing label details
Inspect: visual check of unit for turbidity, clots or abnormal appearance
Talk with the Patient: establish status, inform and comfort

Are symptoms LIFE THREATENING? Airway/Breathing/Circulation? OR Wrong Blood Given? OR Evidence of Abnormal Unit?

INFORM medical staff – seek PROMPT clinical review

Severe or Life Threatening Events
✓ CALL for urgent medical help and review
✓ INITIATE Resuscitation: ABC
✓ DISCONNECT IV infusion set/unit – do NOT discard/restart
✓ MAINTAIN venous access with saline via NEW infusion set
✓ ADMINISTER IV fluids/O$_2$ if clinically indicated
✓ MONITOR TPR/BP/SpO$_2$/urine output (q5-15 min)
✓ TREAT according to clinical status/symptoms, noting:
  ➜ anaphylaxis/severe allergy: use NZRC Anaphylaxis Guide
  ➜ septic shock: use DHB Sepsis Guidelines
  ➜ acute haemolysis: maintain BP, force diuresis, alkalinise urine
  ➜ circulatory overload: diuretics, O$_2$, positive airway pressure
  ➜ TRALI: respiratory support, ask NZBS to start donor review

ALERT: Is haemorrhage a possible cause of the hypotension? Resuscitate with fluids and consider further transfusion

INFORM your local clinical haematologist or TMS via Blood Bank ASAP or, contact directly if treatment advice needed

Moderate Events
✓ All symptoms that are not classified as mild, severe or life threatening
✓ Disconnect IV infusion set/unit – do NOT discard set/unit
✓ Replace IV infusion set
✓ Maintain venous access with saline
✓ Treat according to clinical status
✓ Do NOT restart transfusion

Mild Events
✓ Fever > 38°C and < 1.5°C above baseline with no other symptoms
✓ Localised rash with no other symptoms

Medical Review
? If fever – consider antipyrexial
? If localised rash – consider antihistamine

Management
✓ Consider restarting transfusion at slower rate. Directly observe for first 15 minutes
✓ Increase frequency of monitoring vital signs (TPR/BP/SpO$_2$) thereafter

Reporting
✓ Document in clinical notes
✓ Send NZBS ATR Notification Form (111F009) to Blood Bank
✓ No blood tests required

Investigations and Reporting
✓ DO – ‘Standard ATR Investigations’ and undertake ‘Additional Investigations’ as needed
✓ COMPLETE – NZBS ATR Notification Form (111F009)
✓ SEND – blood unit/IV set, ATR Notification Form and EDTA (pink) sample to BB and other samples to Pathology
✓ RECORD – in clinical notes

If symptoms worsen?
STOP transfusion and manage as per a moderate or severe event