What was reported and reviewed

- Notifications from 33 health services
- Withdrawn reports: duplicates, not in scope, investigation form not completed
- Expert reviews, with an additional 38 secondary reviews
- Reports recategorised following expert review
- Reports excluded following expert review
- Validated transfusion adverse events

Estimated risk of transfusion-transmissible infection calculated on Blood Service data (2016) and risk of major morbidity or death (all causes) from transfusion based on SHOT data for 2015

<table>
<thead>
<tr>
<th>Estimate of residual risk ‘per unit’</th>
<th>HIV</th>
<th>Hepatitis C</th>
<th>Hepatitis B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated risk of serious harm from transfusion issued (SHOT 2015)</td>
<td>Less than 1 in 1 million</td>
<td>Less than 1 in 1 million</td>
<td>Less than 1 in 1 million</td>
</tr>
<tr>
<td>Death</td>
<td>1 in 100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death from error</td>
<td>1 in 320,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major morbidity</td>
<td>1 in 15,500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of validated clinical and procedural reports and health services reporting to STIR by financial year

Severity ratings for clinical reactions and incorrect blood component transfused by financial year
Validated clinical reactions: FY2015

Clinical recommendations:
Slow infusion rates, where appropriate, should be used for all blood products to minimise risk of TACO and allergic reactions.
Use of pre-transfusion risk assessment tools for TACO to reduce the likelihood of TACO occurring. See Blood Matters website
Development of regional/national database of antibodies, may prevent re-exposure to antigen-positive units and the consequences of some DHTRs.

Validated procedural events: FY2015

Procedural recommendations:
Patient identification is critical: confirmation of full name, date of birth and hospital number is required for all requests, communications and checks.

Clear, unambiguous orders for blood products are required. Prescriptions must be consistently written in units, doses or bags to prevent confusion over what is being ordered and dose required.

For Rh(D) Ig, ensure mother and baby blood groups are accessible to, and understood by all. In shared care arrangements, a validated report must be made available (not a transcribed result).

Use of alerts within the laboratory information system to highlight when a blood group being issued is different to the patient’s own group. This should be in place for ABO and Rh(D) discrepancies to avoid inappropriate crossing of blood groups.

For more information on the Serious Transfusion Incident Reporting system (STIR) go to: https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/speciality-diagnostics-therapeutics/blood-matters/serious-transfusion-incidents including how to report an incident and full reports.