**TABLE 7: DELAYED HEMOLYTIC TRANSFUSION REACTION**

ALL PATIENTS SHOULD RECEIVE INFORMATION ON POTENTIAL TRANSFUSION REACTIONS AND HOW TO REPORT A SUSPECTED TRANSFUSION REACTION

---

### Signs & Symptoms

<table>
<thead>
<tr>
<th>Clinical Presentation</th>
<th>Possible Etiology</th>
<th>Suggested Treatment &amp; Actions</th>
<th>Suggested Laboratory Investigations</th>
</tr>
</thead>
</table>
| Fever and/or chills, Jaundice, Pain, Dyspnea, Unexplained fatigue, Low hemoglobin, or lower than predicted HgB post transfusion, High bilirubin, Reticulocytosis, Spherocytosis, High LDH, Positive antibody screen, Positive direct anti-globulin test | ▪ Results from the formation of antibodies by the patient against a red cell antigen to previously transfused red cell alloantigens or from RBC antigen exposure during a prior pregnancy. Over time, the titer of this antibody decreases to undetectable levels, so the antibody screen performed prior to the current transfusion does not detect the antibody. Administration of antigen-positive blood presents a second challenge to the immune system and provokes a subsequent anamnestic response.  
▪ Commonly implicated antigens are E, Jka, c, Fya, K.  
▪ Hemolysis is usually extravascular; however, it may be intravascular. | ▪ Consult Physician  
▪ Implement therapeutic interventions as ordered by physician  
▪ Monitor renal function  
▪ Comfort measures as applicable  
▪ Document event in patient records  
▪ Complete Transfusion Reaction Report Form**  
▪ 1 EDTA tube to TML  
▪ Urine sample to Chemistry  
▪ 1 EDTA tube to Hematology for Complete blood count  
▪ Document in patient record  
▪ Detailed patient history clinical & transfusion  
▪ 1 EDTA tube  
▪ Clerical check  
▪ DAT  
▪ Inspection of patient plasma for hemolysis  
▪ ABO / Rh type and antibody screen on patient pre & post transfusion blood samples  
▪ Full crossmatch on patient pre & post transfusion blood samples  
▪ Elution and antibody investigation if there is:  
  ▪ evidence of unexplained hemolysis  
  ▪ post-transfusion DAT is positive, or  
  ▪ post-transfusion DAT gives a grade 2 or greater reaction than the pre-transfusion DAT  
  ▪ post-transfusion urinalysis confirms hemoglobinuria if “red/brown urine” is reported  
  ▪ Routine urinalysis  
▪ Monitor patient hemoglobin and chemistry (LDH & bilirubin) results for signs of hemolysis and diminished renal function | |

### Usual Timing

3 to 14 days post transfusion

---

### Future transfusion management

▪ For future elective transfusions, components negative for implicated antigen must be issued.  
▪ Please allow sufficient time for the laboratory to locate suitable product for this patient when planning future transfusions.

---

*Delayed transfusion reactions may occur while patient is in hospital or after the patient has been discharged. The patient may be readmitted to hospital at a later date due to a delayed reaction.

**All suspected transfusion reactions (including delayed transfusion reactions) should be reported to Transfusion Medicine Laboratory using a Transfusion Reaction Report Form 00055606 Sept 2012.