

IPEX Questions



Blood and Transplant

Lot Number N083 3148	Expiry Date 2026.11.19
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Patient X is a 35-year-old female scheduled for knee surgery, she has previously been transfused and had 2 pregnancies.

Patient Y is an 80-year-old female with a low body weight (49kg). She was asymptomatic and haemodynamically stable with severe microcytic hypochromic anaemia (Hb 44g/L) with no clinical signs of pulmonary oedema on a chest x-ray or clinical examination.

Three units of red cells were transfused over a period of 15 hours, the doctor was aiming for a post-transfusion Hb of 70-90g/L.

Following transfusion, patient Y developed respiratory compromise with dyspnoea, wheezing and tachypnoea and oxygen saturation reduced to 71%. There were also cardiovascular changes including tachycardia and hypertension.

Fluid balance was not clearly documented. A diuretic was given but the patient deteriorated.

The post transfusion Hb was 111g/L, and a post transfusion x-ray showed pulmonary oedema.

Patient Y has had no previous transfusions.

Patient Z is a 42-year-old male admitted with gastro-intestinal bleeding, he has been transfused previously.

Questions:

1. Comment on the clinical significance of any antibodies found in samples X, Y and Z.
2. What post transfusion complication is the likely cause of the symptoms shown in patient Y following the transfusion of 3 units of red cells.
3. Were there any pre-existing factors that might have indicated patient Y was at risk of this complication? And how might the complication have been avoided?
4. If required, what blood should be selected for these patients?