

Table 3 2007	TREATMENT				TRALI INVESTIGATION RESULTS				
TRALI Case number	Treatment	ITU admission	Ventilation (number of days)	Outcome (imputibility)	Donors	Patient	White Cell cross match	Reason given by reporter for suspecting TRALI	Likelihood of Case being TRALI
01	Oxygen CPAP	Yes	No	Died likely/ probably related (2)	1 female plasma and bc donor had HLA-DR11 antibodies, another bc donor had multiple HLA class I and II antibodies	Negative for cognate HLA class I donor antibodies but could not be HLA Class II typed. Patient had 100% HLA Class I antibodies	ND	ARDS type picture, ? TRALI because short interval after transfusion.	Probable
02	Steroids, oxygen, iv fluids	Yes	Yes (3)	Full recovery	Female plt donor had multiple HLA class II antibodies including specific for DR13, DR17 and DR52	Positive for HLA-DR13,15 and 52 Negative for HLA and HNA antibodies	ND	TRALI was not considered at the time	Highly likely
03	Steroids, diuretics, oxygen,CPAP, iv fluids	Yes	No	Full recovery	Female donor had multiple HLA Class I and HLA Class II antibodies including antibodies to HLA-A2 and HLA-DR4	HLA-A2 and HLA-DR4 positive Negative for HLA and HNA antibodies	ND	None given	Highly likely

04	Steroids, oxygen (CPAP), iv fluids	No	No	Full recovery	1 female buffy coat donor had HNA-3a antibodies	HNA-3a positive Negative for HLA and HNA antibodies	NK	Well before transfusion, no risk factors for ALI.	Highly likely
05	Oxygen, diuretics, iv fluids	Yes	Yes (NK)	Full recovery	Only 1 donor tested, RBC transfused at time. Negative for HLA and HNA antibodies	NK	ND	Patient unable to retain fluid, so no overload observed. No underlying risk factor for ALI	Possible
06	Oxygen, diuretics, iv fluids	Yes	Yes (7)	Full recovery	1 female donor had HLA Class I and II antibodies did not match patient	Negative for HLA and HNA antibodies	ND	Signs and symptoms developed in theatre where fluids closely managed	Unlikely
07	Oxygen, diuretics, steroids	Yes (was on HDU)	Yes (NK)	Full recovery	1 female donor had HNA-3a antibodies 2nd female donor had HLA Class I antibodies but cognate antigens not in patient	Positive for HNA-3a Negative for HLA and HNA antibodies	ND	Reporter had included TRALI in differential diagnosis but thought other causes of ARDS more likely at the time	Probable
08	Oxygen, diuretics, iv fluids	Yes	Yes (9)	Died unrelated (0)	1 female buffy coat donor had HLA Class II antibodies including anti-DR17	Positive for HLA-DR17 Positive for HLA Class I and Class II antibodies matched recipient	ND	Onset after transfusion	Probable
09	Oxygen, diuretics, iv fluids	Yes-already on ITU	Yes (6) started before reaction	Full recovery	1 female buffy coat donor had HLA Class I and II antibodies	Positive for HLA-A2 and DR4 Negative for	ND	Sudden deterioration during transfusion	Highly likely

					including HLA-A2 and DR4	HLA and HNA antibodies			
10	Oxygen	Yes	Yes (1)	Full recovery	I female donor had HLA class I antibodies which didn't match patient, other female donor no HLA or HNA antibodies	Negative for cognate HLA antigens Patient negative for HLA and HNA antibodies	ND	No other plausible reason for respiratory collapse	Possible
11	Steroids, oxygen, diuretics iv fluids	Yes	Yes (1)	Full recovery	I female bc donor had HLA Class I antibodies which did not match patient	Negative for cognate HLA antigens. Patient had HLA class I and II antibodies matching donor	ND	Proximity to transfusion	Unlikely
12	Steroids, oxygen, furosemide 40mg	No	No	Full recovery	Residual ivig tested. No HLA Class I or Class II antibodies found. Non specific binding ivig with patient and control granulocytes.	HLA Class I and II antibody negative. Direct GIFT positive, persisted for 11 weeks. Indirect GIFT negative	ivig pos in granulocyte X match with patient and 8 healthy donors (non-specific)	Because they reported no clinical signs of heart failure and was not fluid overloaded	Possible
13	oxygen, diuretics, iv fluids, salbutamol	Yes	Yes (2)	Full recovery	Female donor negative for HLA and granulocyte antibodies	HLA class I and II antibodies. HLA Class I antibodies matched donor	ND	Not recorded	Unlikely

14	Oxygen, CPAP, diuretics, iv fluids	Yes	No	Full recovery	Female buffy coat donor had anti HLA-A2, another female donor had anti-HNA-1a	HLA-A2 positive. HNA-1a positive. Anti HLA -B45, 9 of 10 donors tested and negative for HLA-B45	ND	Patient known to have HLA antibodies and respiratory symptoms began within 3 hours of commencing buffy coat transfusion.	Probable
15	Oxygen, iv fluids	No	No	Full recovery	Female RBC donor had multiple HLA Class I and II antibodies including specific for HLA-B39, DR8, DR13, DQ4	Positive for HLA-B39, DR8, DR13, DQ4 Negative for HLA and HNA antibodies	ND	Temporal relationship with less than 200mls of fluid/blood transfused. CXR infiltrates that resolved spontaneously without diuretics or antibiotics	Highly likely
16	Oxygen, diuretics	Yes	No	Full recovery	Female RBC donor had HNA-1a antibodies	HNA-1a positive. Patient negative for HLA and HNA antibodies	ND	Awareness of the differential diagnosis	Highly likely
17	Steroids, oxygen, diuretics, iv fluids	NK	No	Full recovery	1 male donor negative for HLA and HNA antibodies	Anti HLA class II, matched donor	ND	Recent transfusion	Unlikely
18	Not reported	Yes	No	Full recovery	1 female RBC donor multiple HLA Class I and Class II antibodies including HLA-	Positive for cognate antigens HLA-B27,-DR51, -DQ6 Negative for	ND	Fluid overload and sepsis excluded	Highly likely

					B27, -DR51, -DQ6	HLA and HNA antibodies			
19	Oxygen and diuretics	No	No	Full recovery	Not investigated	Not investigated	ND	TACO considered unlikely because Left ventricular ejection fraction only reduced to 40%	Unlikely
20	Diuretics, iv fluids	No	No	Died underlying disease (0)	Not investigated	Not investigated	ND	Suggested because increased rate of deterioration after infusion FFP	Unlikely
21	Steroids, oxygen, diuretics, iv fluids	Yes-already on ITU	Already on ventilator (1 day)	Died (0)	Negative for HLA and HNA antibodies	HLA antibodies Class and whether matched donors not reported	ND	ARDS possibly more likely	Unlikely
22	Oxygen	no	no	Full recovery	Female buffy coat donor had multiple HLA Class I and II antibodies including DR6	DR6 positive. Patient anti HLA negative	ND	X ray result and proximity to transfusion	Highly Likely
23	Steroids, oxygen, iv fluids	no	no	Full recovery	Not investigated (expert panel thought sepsis more likely)	Not investigated	ND	Consultant haematologist unsure of specific diagnosis	Unlikely
24	Oxygen, diuretics, iv fluids	No	No	Full recovery	Not investigated (expert panel thought sepsis/ LVF more likely)	Not investigated	ND	Timing related to FFP and reasonable LV function	Unlikely