

2020 Annual SHOT Report – Supplementary information

Chapter 20: Uncommon Complications of Transfusion (UCT) n=12

Table 20.1: Summary of cases other than those resulting in death or major morbidity reported under UCT category

Number	Case synopsis with underlying diagnosis	Imputability
2	SHOT case number 39107: A patient in his late 70s was critically unwell post hemicolectomy with acute kidney injury (AKI), hyponatraemia, multiorgan failure, on haemofiltration, had signs of sepsis; developed bradycardia, hypotension with just 5ml of platelets. Transfusion stopped, supportive treatment given and recovered	1-Possibly related to transfusion
3	SHOT case number 39185: A woman in her late 60s admitted with Aortic Stenosis was awaiting further investigations and valve replacement. Red Cell transfusion requested prior to Angiogram, had 10 minutes (30ml) of blood transfusion and began having chest pain, being clammy and short of breath. Heart rate 126 bpm, blood pressure (BP) 136/69, Respiratory Rate 28/min, Temp 36.7, Oxygen saturation 88% on 8 litres venturi. Raised jugular venous pressure and bilateral chest crackles. Blood transfusion stopped, reviewed by medical team. Immediate doses of 40mg IV furosemide, 100mg hydrocortisone, 10mg chlorphenamine, glyceryl trinitrate (GTN) spray and Diamorphine 2.5mg given. Patient recovered.	1-Possible
4	SHOT case number 40153: A 42-year-old fit and well patient underwent an urgent elective embolisation of a 7cm splenic artery aneurysm and splenectomy. Bled post operatively requiring a massive transfusion and several operations to control the bleeding. Red cells, platelets and plasma components given. Patient developed respiratory failure and the clinical status deteriorated markedly throughout the day resulting in multiorgan failure, pulseless electrical activity (PEA) arrests and the need for extracorporeal membrane oxygenation (ECMO). The clinical picture was not one of transfusion associated circulatory overload (TACO) and patient had no response to a large dose of frusemide and although a massive transfusion (~10 L) this was proportional to their bleeding. Of note the Rotational Thromboelastometry (ROTEM) was always on the lower end of normal and never hypercoagulable. The transfusion associated acute lung injury (TRALI) expert panel who reviewed this case agreed	1-Possible

	this was acute respiratory distress syndrome (ARDS) associated with major haemorrhage.	
5	<p>SHOT case number 40759:</p> <p>A patient in mid 50s admitted with bursitis and abscess in right hip + sepsis. Patient had a low haemoglobin (Hb) and started on 1 unit of blood pre-surgery. Soon after commencement of blood, patient became short of breath and blood pressure (BP) dropped (126/84 to 76/47) during transfusion. Transfusion was stopped and unit sent back to the lab for investigation. Pre and post transfusion samples had a positive direct antiglobulin test (DAT) (0.5 IgG only), the blood unit was incompatible (0.5). Antibody screen: negative. Patient had a positive DAT pre transfusion- this was not investigated pre transfusion and the unit of blood was electronically issued. Pre and post transfusion samples were sent to NHSBT. Possible auto anti-e detected by enzyme from the eluate and weak nonspecific reactions. These findings along with patient's underlying diagnosis may have caused the transfusion reaction.</p>	1-Possible
6	<p>SHOT case number 40860:</p> <p>Patient with metastatic cancer with and sepsis became tachycardic 20 mins into a red cell transfusion. Recovered, tachycardia was thought to be due to underlying sepsis. Patient had multiple medical conditions (metastatic cancer, AKI, raised D-Dimers, hyperkalaemia, raised troponin, and sepsis), and died a few days after transfusion, unrelated to the transfusion.</p>	1-Possible
7	<p>SHOT case number 40760:</p> <p>Elderly patient in 90s admitted with anaemia due to rectal bleeding (was on anticoagulant drugs), had multiple complex cardiac issues including pacemaker. Transfusion commenced, at 15-minute observations BP elevated (159/85mmhg Pre transfusion and 174/107mmhg at 15 minutes) and Respiratory rate increased slightly (from 17 up to 20 respirations/min). Also complained of stomach pains and some shortness of breath. Suspected red blood cell (RBC) transfusion reaction, Patient settled once transfusion stopped. Recovered</p>	1-Possible
8	<p>SHOT case number 39899:</p> <p>Patient in mid 70s, myelodysplastic syndrome (MDS), anaemia post Azacytidine, patient attended Haematology Day Unit for 2-unit red cell transfusion. Each unit transfused over 90-180 minutes. At the start of the second unit, the heart rate (HR) had increased and at the end of the second unit, HR had come down from 69 to 40 but BP was raised from 146/68 to 200/83. Patient treated with furosemide and amlodipine. TACO checklist done pre-transfusion; no risk factors identified for which mitigating actions were needed. Patient had no respiratory symptoms- no cough/chest pain/dyspnoea. Chest X-Ray (CXR) post reaction: Cardiomedastinal contours within normal limits. No focal</p>	<p>1-Possible</p> <p>(patient died subsequently unrelated to transfusion)</p>

	collapse or consolidation. No lung mass. No pulmonary oedema. No appreciable pleural collections. Electrocardiogram (ECG) showed sinus rhythm with frequent premature ventricular complexes in a pattern of bigeminy. Possible left atrial enlargement with ST & T wave abnormality consider anterior ischaemia. Patient given furosemide at 17:00 and amlodipine 5mg at 17:50. Patient was outpatient and was discharged with advice to continue to check BP and if systolic BP consistently above 200 or increase in shortness of breath to come back in. Predominantly cardiac symptoms likely primary cardiac cause (possible ischaemic ECG)	
9	SHOT case number 39295: Serious adverse event (SAE) no reaction in patient: COVID-19 patient – Haemofiltration tubes from Patient A was re attached to Patient B. A small amount (<50ml) of B +ve blood given to B neg recipient. Error picked up quickly by nurse looking after patient B. No check of the patient information on the machine was performed prior to attaching to the patient. The patient was very unstable, and the nurse felt very stressed and rushed to get the patient back on continuous veno-venous haemofiltration (CVVH) after proning. Patient A's machine was beeping as battery was low and was moved from the immediate vicinity to plug in leaving only 1 machine, that of Patient B in the vicinity. The nurse was working in full personal protective equipment (PPE) nearing end of 12-hour shift with last break 3 hours back. No reaction noted, patient died but death unrelated to transfusion. This case has been included to highlight the error in a dynamic high-pressure situation during the pandemic. Staff working in unfamiliar environments, high stress, dynamic situation, and staff carrying out unfamiliar practices eg proning working in full PPE were contributory. Local practices were updated with a need for patient sticker to be placed over the line after disconnection 2 people to check at reconnection.	
10	SHOT case number 40916 and 40917: A patient in mid 80s with recurrent acute myeloid leukaemia (AML), received irradiated apheresis platelets, had reactions on two consecutive days, both reactions were within half an hour of start of transfusion (the first one was within 15mins and the next day was between 15-30mins). After 5 minutes of transfusion, patient complained of abdominal pain radiating to back, lower back pain, Oxygen saturation reduced to 85% and patient became hypotensive. No stridor or wheeze reported. Pre 124/69 Reaction 97/46. Treated with Piriton and hydrocortisone. Transfusion stopped. Symptoms resolved within an hour. Two reports submitted related to the reaction on two separate occasions	3- Definite

