Table 3 Appropriate and inappropriate blood products transfused according to hospital guidelines for red blood cell transfusions and according to British Committee for Standards in Haematology (BCSH) guidelines for platelet and fresh frozen platelet (FFP) transfusions [6,7]

Indication	Appropriate episodes		Inappropriate episodes	
	No. (sum of units transfused)	Mean (SD) range	No. (sum of units transfused)	Mean (SD) range
Contributory indications for RBC according to hospital guidelines (WB, RBC) (n = 596)	503 (881)	1.8 (0.82) 1–7	93 (142)	1.5 (0.63) 1–4
Acute blood loss[a]	176 (337)	1.9 (0.78) 1–4	35 (55)	1.6 (0.60, 1–4
Anaemia in critical care (target values as for acute blood loss)	64 (107)	1.7 (1.10) 1–6	9 (12)	1.3 (1.0) 1–4
Peri-operative transfusion (to maintain Hb concentration > 10g/dL)	82 (128)	1.6 (0.65) 1–4	24 (35)	1.4 (0.52) 1–2
Anaemia[b]	145 (256)	1.7 (0.72) 1–4	11 (18)	1.6 (0.87) 1–4
Anaemia[c]	36 (53)	1.4 (0.51) 1–2	14 (22)	1.5 (0.75) 1–4
Contributory indications for platelets (n = 76)	45 (327)	7.4 (2.6) 2–10	31 (201)	6.4 (2.7) 2–10
Bone marrow failure[d]	27 (208)	8.0 (2.2) 3–10	6 (47)	7.8 (2.7) 4–10
Peri-operative or invasive procedure[e]	11 (69)	8.0 (2.2) 3–10	7 (41)	5.8 (2.0) 4–10
Massive haemorrhage/transfusion[f]	1 (10)	10.0[g]	5 (20)	4.0 (1.8) 2–6
Acute DIC in presence of bleeding & severe thrombocytopenia	1 (10)	10.0	2 (10)	5.0 (0.0) 5
Autoimmune thrombocytopenia in presence of major haemorrhage	5 (30)	6.0 (3.8) 2–10	11 (83)	7.5 (2.8) 3–10
Contributory indications for FFP (n = 91)	60 (172)	2.8 (1.4) 1–10	31 (71)	2.3 (1.7) 1–6
Single factor or coagulation inhibitor deficiency	5 (17)	3.4 (0.54) 3–4	–	–
Immediate reversal of warfarin effect in presence of life-threatening bleeding	10 (34)	3.4 (2.5) 1–10	9 (22)	2.4 (0.8) 1–4
Acute DIC in presence of bleeding and abnormal coagulation results	16 (53)	3.3 (1.4) 2–7	10 (21)	2.1 (1.2) 1–5
Liver disease	14 (31)	2.2 (0.80) 1–3	6 (18)	3.0 (2.0) 1–6
Active bleeding and PT > 1.5 × mean normal value	15 (37)	2.5 (0.64) 2–4	6 (10)	1.7 (0.51) 1–2

[a]To maintain circulating blood volume and Hb concentration > 8g/dL in otherwise fit patients and > 10g/dL in elderly patients and those with known cardiovascular and respiratory diseases.
[b]Hb concentration < 8g/dL in otherwise fit patients.
[c]Hb concentration < 10g/dL in patients over 65 years and patients with cardiovascular or respiratory disease.
[d]To prevent spontaneous bleeding when the platelet count < 10 × 10⁹/L or < 20 × 10⁹/L in the presence of additional risk factors for bleeding.
[e]Platelet count < 50 × 10⁹/L, or < 100 × 10⁹/L before surgery in critical sites such as brain or eyes.
[f]Platelet count < 50, or < 100 × 10⁹/L if micro-vascular oozing.
[g]There was only 1 episode of 10 units PLT transfusion, thus, there is no standard deviation or range.
WB = whole blood; RBC = red blood cells; SD = standard deviation; Hb = haemoglobin; PT = prothrombin time; DIC = disseminated intravascular coagulation.