

SUPPLEMENTAL MATERIAL

Supplemental table 1: Demographics, injury, physiology and total transfusion requirements before haemostasis for patient cohort by CCT and VHA trial arms.

	CCT ¹	VHA ¹
n	58	75
Demographics		
Age	38 (27, 55)	34 (22, 51)
Female	6 (12%)	14 (21%)
Injury Characteristics		
Penetrating injury	22 (42%)	25 (37%)
ISS	25 (18, 41)	29 (17, 43)
TBI (AIS Head 4+)	8 (16%)	17 (26%)
Admission Physiology		
Heart Rate	116 (90, 123)	117 (97, 131)
Systolic BP (mmHg)	82 (69, 104)	91 (74, 124)
GCS	14 (4, 14)	14 (6, 15)
Lactate (mmol/l)	4.6 (3.6, 7.8)	4.4 (2.9, 8.1)
Base deficit (mmol/l)	10 (6, 14)	9 (5, 16)
Admission Coagulation		
EXTEM A5 (mm)	35 (29, 41)	36 (29, 41)
FIBTEM A5 (mm)	8.0 (5.5, 9.5)	9.0 (5.5, 11.5)
PLTTEM A5 (mm)	27 (24, 32)	26 (22, 30)
EXTEM LI30 (%)	100 (100, 100)	100 (100, 100)
PTr	1.20 (1.10, 1.30)	1.20 (1.10, 1.40)
Fibrinogen (g/l)	1.70 (1.29, 2.00)	1.75 (1.16, 2.21)
Platelets (x10 ⁹ /l)	174 (145, 237)	204 (155, 241)
Transfusion Requirements		
RBC units	6 (4, 13)	6 (4, 8)
FFP/Octaplasma	6 (4, 12)	5 (4, 8)
Fibrinogen (g)	4 (0, 8)	4 (0, 8)
Platelet (pools)	1 (0, 2)	2 (1, 2)
Tranexamic acid	50 (86%)	63 (84%)

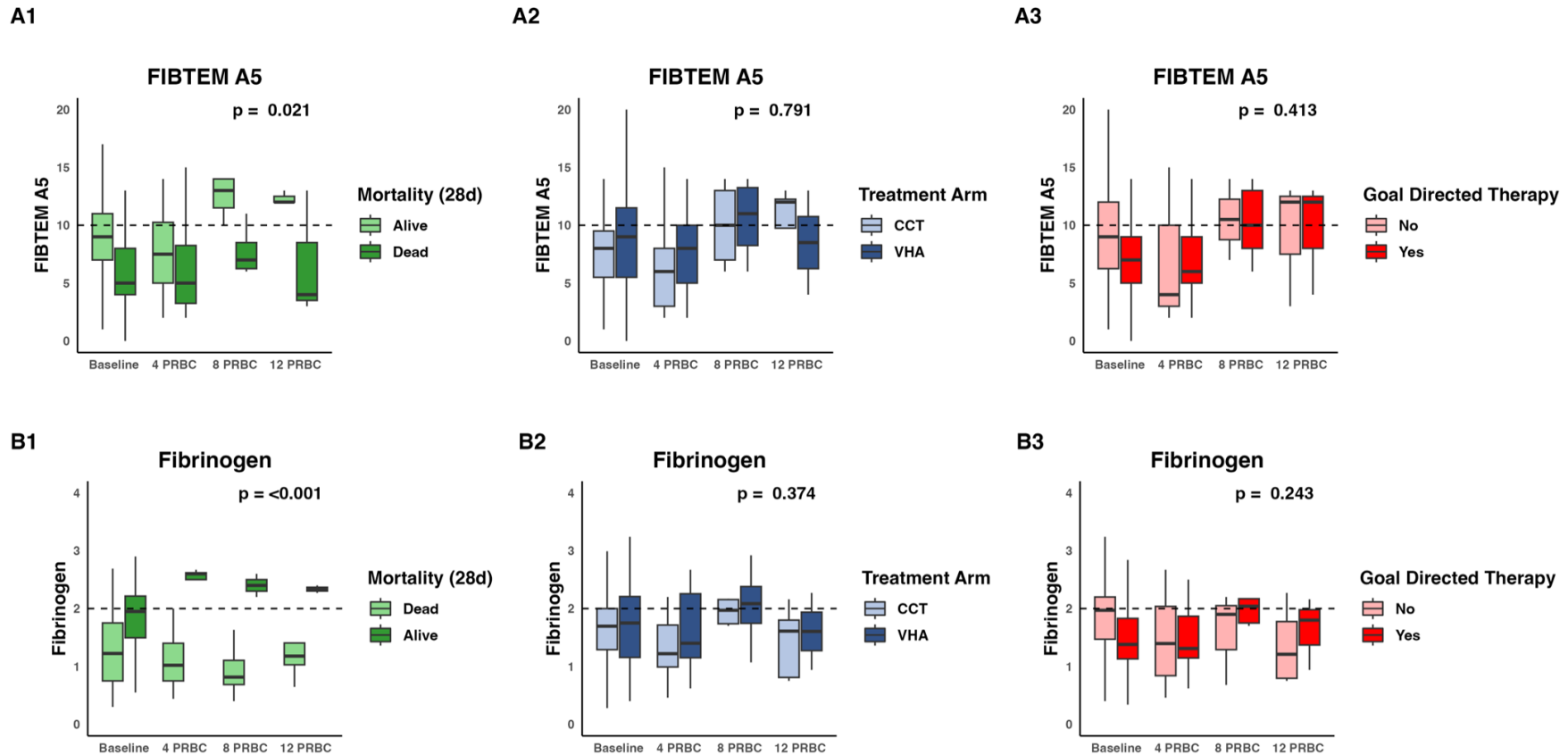
¹ n; Median (IQR); n (%)

Supplemental Table 2: Mortality in patients presenting with admission coagulopathies by ITACTIC arm.

Trigger	CCT		VHA		Odds Ratio ¹ OR (95% CI)
	n	Mortality n(%)	n	Mortality n(%)	
PTr >1.2	21	10 (48%)	23	10 (44%)	0.85 (0.25 – 2.86)
Fibrinogen <2g/L	41	15 (37%)	42	14 (33%)	0.87 (0.35 – 2.17)
Platelet count <100x10 ⁹ /L	11	5 (46%)	3	1 (33.3%)	0.65 (0.02 – 10.38)
EXTEM A5 <40mm	41	16 (39%)	56	17 (30%)	0.68 (0.29 – 1.61)
FIBTEM A5 <10mm	45	16 (36%)	46	15 (33%)	0.88 (0.36 – 2.11)
PLTTEM A5 <30mm	42	17 (41%)	57	18 (32%)	0.68 (0.29 – 1.58)
Any trigger	49	16 (33%)	64	19 (30%)	0.87 (0.39 – 1.97)

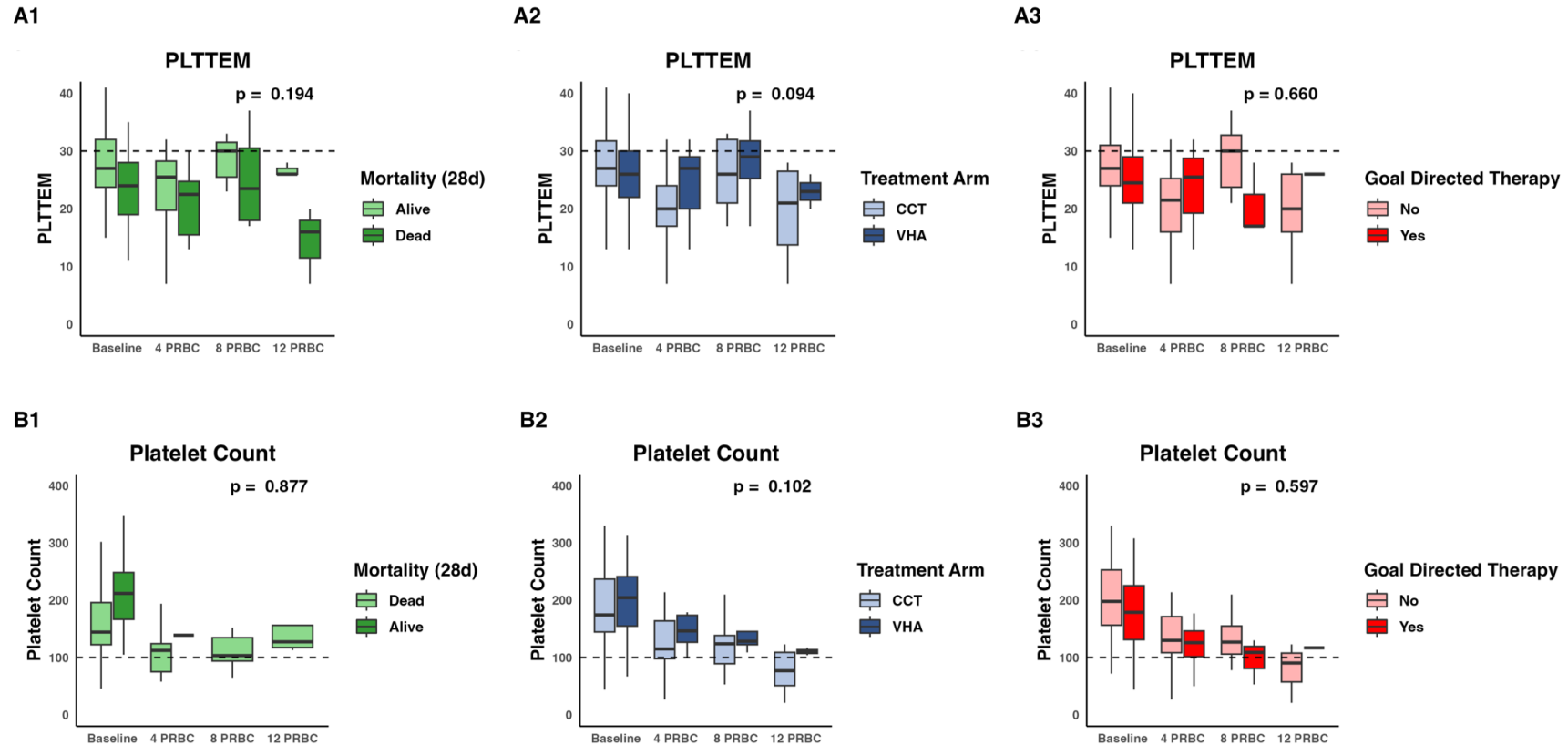
¹ odds of mortality for viscoelastic guided goal-directed therapy for individuals triggering for targeted therapy on each test

Supplemental figure 1: FIBTEM and Fibrinogen levels during transfusion



Boxplots showing changes in FIBTEM (A1-3) and fibrinogen (B1-3) at baseline and after 4, 8 and 12 units of PRBC. Green: Survivors vs non survivors. Blue: CCT vs VHA arms. Red: Targeted treatment vs no targeted treatment. The dotted lines represent the laboratory coagulation test thresholds for fibrinogen (<2g/L) and FIBTEM (<10mm) for administration of targeted treatments according to the ITACTIC algorithm. Differences in coagulation parameters between groups during transfusion were analysed with two-way ANOVA.

Supplemental figure 2: PLTTEM and Platelet counts during transfusion



Boxplots showing changes in PLTTEM (A1-3) and Platelet Count (B1-3) at baseline and after 4, 8 and 12 units of PRBC. Green: Survivors vs non survivors. Blue: CCT vs VHA arms. Red: Targeted treatment vs no targeted treatment. The dotted lines represent the coagulation test thresholds for PLTTEM (<30mm) and platelet count $100 \times 10^9/L$ for administration of targeted treatments according to the ITACTIC algorithm. Differences in coagulation parameters between groups during transfusion were analysed with two-way ANOVA.