

Appendix

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

Table S1A: **Volume of study fluid administered (mL) and proportion of patients receiving fluid.***

Fluid - mls	Plasma-Lyte 148 (n=35)	0.9% saline (n=34)
Proportion of patients receiving fluid		
Plasma-Lyte 148 (study fluid)		
Day 0 - median [IQR] no./total no. (%)	1000 [0-2000] 35/35 (100)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	220 [0-1080] 21/35 (60)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-500] 14/35 (40)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0 [0-0] 6/35 (17)	0[0-0] 0/34 (0)
Day 4 to 90 - median [IQR] no./total no. (%)	0 [0-1200] 12/35 (34)	0[0-0] 0/34 (0)
0.9% saline (study fluid)		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	1020 [0-2673] 34/34 (100)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	500 [0-1670] 22/34 (65)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-620] 13/34 (38)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0 [0-0] 5/34 (15)
Day 4 to 90 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0 [0-1000] 15/34 (44)

*There were no significant differences in between the groups for the volume of study fluid received. P value for comparison of volume of fluid administered by treatment group calculated using Wilcoxon Rank Sum test.

Table S1B. Non- Study fluids and blood products administered

	Plasma-Lyte 148 (n=35)	0.9% saline (n=34)
Plasma-Lyte 148 (open label)		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 2/35 (6)	0[0-0] 1/34 (3)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 2/34 (6)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 1/34 (3)
Day 4 to 90 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 2/34 (6)
0.9% saline (open label)		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 3/34 (9)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 2/35 (6)	0[0-0] 2/34 (6)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 4 to 90 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 2/34 (6)
5% Dextrose		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 4/35 (11)	0[0-0] (12)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 5/34 (15)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 5/35 (14)	0[0-0] 3/34 (9)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 2/35 (6)	0[0-0] 0/34 (0)
4% Albumin		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
20% Albumin		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 0/34 (0)
Gelofusine		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Voluven or Volulyte		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Other colloids		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Packed red blood cells		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 1/34 (3)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 6/35 (17)	0[0-0] 2/34 (6)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 2/34 (6)
Fresh frozen plasma		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 3/35 (9)	0[0-0] 2/34 (6)

Day 1 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 1/34 (3)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 1/34 (3)
Platelets		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 2/35 (6)	0[0-0] 1/34 (3)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 2/34 (6)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Cryoprecipitate		
Day 0 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 0/34 (0)
Day 1 - median [IQR] no./total no. (%)	0[0-0] 1/35 (3)	0[0-0] 0/34 (0)
Day 2 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)
Day 3 - median [IQR] no./total no. (%)	0[0-0] 0/35 (0)	0[0-0] 0/34 (0)

*There were no significant differences in between the groups for the volume of study fluid received. P value for comparison of volume of fluid administered by treatment group calculated using Wilcoxon Rank Sum test.

Table S2. **Unadjusted and adjusted analysis of the primary outcome and key secondary outcomes.**

Outcome	Plamsa-Lyte 148, n/N (%)	0.9% saline, n/N (%)	OR 95%CI (unadjusted)	P- value	OR 95%CI (adjusted)*	P- Value
Total number of patients with a GI complication	21/35 (60.0)	22/34 (64.7)	0.82 (0.31, 2.17)	0.69	1.00 (0.35, 2.89)	0.994
Patients with high GRV	4/35 (11.4)	11/34 (32.4)	0.27 (0.08, 0.96)	0.04	0.26 (0.07, 0.99)	0.049
Patients with vomiting	9/35 (25.7)	6/34 (17.6)	1.62 (0.51, 5.12)	0.42	2.92 (0.71, 12.09)	0.137
Patients with diarrhoea	16/35 (45.7)	15/34 (44.1)	1.07 (0.41, 2.76)	0.89	1.13 (0.41, 3.15)	0.811

* Adjusted analyses performed using logistic regression. Variables that were included are sex, trauma admission diagnosis and time until nasogastric feeding commencement.

Table S3. **Co-intervention use.**

Co-intervention	Plasma-Lyte 148	0.9% saline	P-value
Metoclopramide- no./total no. (%)	8/35 (22.9)	15/34 (44.1)	0.06
Erythromycin- no./total no. (%)	1/35 (2.9)	4/34 (11.8)	0.15
Opiates- no./total no. (%)	25/35 (100)	33/34 (97.1)	0.3
Catecholamines- no./total no. (%)	29/35 (82.9)	28/34 (82.4)	0.96

Table S4. **Daily total gastric residual volumes (mL) day 0 to day 7.**

Gastric residual volume	Plasma-Lyte 148	0.9% saline	P-Value
Day 0 - median [IQR] no./total no. (%)	140 [5 - 285] 35/35	68 [0 - 328] 34/34	0.48
Day 1 - median [IQR] no./total no. (%)	340 [41 - 530] 35/35	281 [83 - 1085] 34/34	0.27
Day 2 - median [IQR] no./total no. (%)	185 [49 - 500] 35/35	300 [59 - 564] 34/34	0.32
Day 3 - median [IQR] no./total no. (%)	100 [25 - 434] 34/35	167 [43 - 450] 31/34	0.57
Day 4 - median [IQR] no./total no. (%)	43 [14 - 268] 26/35	238 [28 - 603] 26/34	0.06
Day 5 - median [IQR] no./total no. (%)	43 [6 - 256] 20/35	138 [24 - 375] 24/34	0.36
Day 6 - median [IQR] no./total no. (%)	35 [11 - 188] 14/35	138 [19 - 315] 21/34	0.18
Day 7 - median [IQR] no./total no. (%)	15 [1 - 46] 12/35	50 [15 - 870] 21/34	0.049

Table S5. **Biochemical data from day 0 to day 3.**

	Plasma-Lyte 148	0.9% saline	P-value
Lowest bicarbonate			
• Day 0	21.9 (0.8)	21.0 (0.8)	0.40
• Day 1	22.6 (0.7)	22.1 (0.7)	0.64
• Day 2	24.2 (0.7)	24.6 (0.8)	0.71
• Day 3	24.66 (0.6)	24.3 (0.8)	0.73
Highest bicarbonate			
• Day 0	24.2 (0.8)	23.4 (0.8)	0.50
• Day 1	25.5 (0.5)	24.9 (0.7)	0.53
• Day 2	26.8 (0.7)	26.5 (0.7)	0.75
• Day 3	27.2 (0.7)	26.2 (0.7)	0.29
Lowest potassium			
• Day 0	3.7 (0.1)	3.8 (0.1)	0.75
• Day 1	3.7 (0.1)	3.7 (0.1)	0.60
• Day 2	3.7 (0.1)	3.7 (0.8)	0.66
• Day 3	3.7 (0.1)	3.6 (0.1)	0.47
Highest potassium			
• Day 0	4.3 (0.1)	4.4 (0.1)	0.57
• Day 1	4.6 (0.1)	4.4 (0.1)	0.40
• Day 2	4.3 (0.1)	4.2 (0.1)	0.64
• Day 3	4.2 (0.1)	4.1 (0.1)	0.48
Lowest sodium			
• Day 0	138.5 (1.0)	138.6 (0.7)	0.93
• Day 1	138.2 (0.9)	138.6 (0.6)	0.72
• Day 2	3.7 (0.1)	3.7 (0.1)	0.66
• Day 3	3.7 (0.1)	3.6 (0.1)	0.47
Highest sodium			
• Day 0	142.1 (1.1)	141.7 (0.7)	0.77
• Day 1	142.4 (0.9)	142.3 (0.6)	0.89
• Day 2	142.5 (0.8)	143.5 (0.9)	0.42
• Day 3	143.0 (0.9)	144.3 (1.1)	0.38
Lowest glucose			
• Day 0	7.4 (0.4)	7.2 (0.3)	0.66
• Day 1	7.2 (0.2)	6.9 (0.3)	0.40
• Day 2	7.3 (0.2)	7.4 (0.4)	0.90
• Day 3	7.3 (0.2)	7.0 (0.3)	0.36
Highest glucose			
• Day 0	9.7 (0.6)	9.4 (0.4)	0.62
• Day 1	10.6 (0.7)	9.1 (0.3)	0.07
• Day 2	10.0 (0.4)	9.2 (0.4)	0.14
• Day 3	9.7 (0.4)	9.1 (0.4)	0.32
Lowest pH			
• Day 0	7.31 (0.02)	7.31 (0.02)	0.94

• Day 1	7.34 (0.02)	7.35 (0.01)	0.60
• Day 2	7.37 (0.01)	7.38 (0.01)	0.25
• Day 3	7.41 (0.01)	7.39 (0.01)	0.24
Highest pH			
• Day 0	7.38 (0.02)	7.39 (0.01)	0.83
• Day 1	7.42 (0.01)	7.43 (0.01)	0.39
• Day 2	7.45 (0.01)	7.44 (0.01)	0.20
• Day 3	7.46 (0.01)	7.45 (0.01)	0.30
Lowest carbon dioxide			
• Day 0	49.1 (3.0)	46.5 (2.3)	0.50
• Day 1	45.7 (1.3)	43.9 (1.4)	0.34
• Day 2	46.0 (1.7)	43.0 (1.3)	0.17
• Day 3	42.6 (1.5)	42.7 (1.7)	0.97
Highest carbon dioxide			
• Day 0	38.5 (1.3)	37.5 (1.5)	0.61
• Day 1	37.0 (1.1)	34.8 (1.0)	0.12
• Day 2	37.2 (1.4)	36.7 (1.0)	0.78
• Day 3	36.5 (1.3)	36.2 (1.3)	0.87

Values followed by brackets are mean (Standard error).