

Supplemental Table 1: Patient characteristics for the four anemia cohorts and “High” discharge Hb versus “Low” discharge Hb cohorts

(Subgroup of older patients – age ≥ 65 years)

Parameter	Anemia Hb Cohorts					“Low” vs. “High” Hb Cohorts		
	“Severe”	“Moderate”	“Mild”	“No”	P-value	“Low”	“High”	P-Value
	< 8 g/dL (n=58)	8-9.9 g/dL (n=523)	10-11.9 g/dL (n=207)	≥ 12 g/dL (n=12)		(<9.4 g/dL) (n=410)	(≥9.4 g/dL) (n=390)	
Age (years)	72 ± 6	73 ± 6	73 ± 6	73 ± 6	0.35	73 ± 6	73 ± 6	0.39
Sex (% Male)	45 (77.6)	383 (73.2)	141 (68.1)	9 (75.0)	0.42	213 (76.1)	266 (68.2)	0.01
CCI	2 (1 – 3)	2 (1 – 4)	2 (1 – 4)	2 (0.25 – 3)	0.61	2 (1 – 4)	2 (1 – 4)	0.48
ASA Score	3 (3 – 4)	3 (3 – 4)	3 (3 – 4)	3 (3 – 3)	0.10	3 (3 – 4)	3 (3 – 4)	0.27
% Redo Sternotomy	7 (12.1)	11 (2.1)	8 (3.9)	0 (0.0)	0.005	14 (3.4)	12 (3.1)	0.79
Initial Hb (g/dL)	13.1 ± 1.9	12.9 ± 1.8	13.2 ± 2.0	14.6 ± 1.1	0.004	12.8 ± 1.9	13.2 ± 1.9	0.002
Trigger Hb (g/dL)^a	7.3 ± 0.4	7.7 ± 0.7	7.9 ± 1.0	9.3 ± 0.9	<0.0001	7.6 ± 0.7	7.9 ± 0.9	0.0002
Discharge Hb (g/dL)	7.6 ± 0.2	9.0 ± 0.6	10.6 ± 0.5	12.8 ± 0.5	<0.0001	8.5 ± 0.5	10.3 ± 0.8	<0.0001
Comorbidities:								
CHF	13 (22.4)	122 (23.3)	57 (27.5)	2 (16.7)	0.63	94 (22.9)	100 (25.6)	0.37

Hypertension	47 (81.0)	433 (82.8)	176 (85.0)	10 (83.3)	0.84	340 (82.9)	326 (83.6)	0.80
PVD	13 (22.4)	93 (17.8)	42 (20.3)	2 (16.7)	0.71	74 (18.1)	76 (19.5)	0.60
Pulmonary Disease	5 (8.6)	99 (18.9)	36 (17.4)	5 (41.7)	0.04	73 (17.8)	72 (18.5)	0.81
Diabetes	19 (32.8)	145 (27.7)	66 (31.9)	2 (16.7)	0.49	115 (28.1)	117 (30.0)	0.54
Renal Disease	12 (20.7)	111 (21.2)	44 (21.3)	0 (0.0)	0.37	83 (20.2)	84 (21.5)	0.65

CCI – Charlson Comorbidity Index, Hb – Hemoglobin, CHF – Congestive heart failure, PVD – Peripheral vascular disease

a – Only patients who were transfused were included.

Values are reported as Mean ± SD, No. (%), or Median (IQR) as appropriate.

Supplemental Table 2: Patient characteristics for the four anemia cohorts and “High” discharge Hb versus “Low” discharge Hb cohorts

(Subgroup of younger patients – age < 65 years)

Parameter	Anemia Hb Cohorts				P-value	“Low” vs. “High” Hb Cohorts		
	“Severe” < 8 g/dL (n=71)	“Moderate” 8-9.9 g/dL (n=453)	“Mild” 10-11.9 g/dL (n=191)	“No” ≥ 12 g/dL (n=37)		“Low” (<9.4 g/dL) (n=396)	“High” (≥9.4 g/dL) (n=356)	P-Value
Age (years)	55 ± 7	57 ± 6	56 ± 7	57 ± 6	0.38	56 ± 6	56 ± 7	0.89
Sex (% Male)	54 (76.1)	356 (78.6)	153 (80.1)	34 (91.9)	0.22	311 (78.5)	286 (80.3)	0.54
CCI	2 (1 – 3)	2 (1 – 4)	2 (1 – 3)	2 (1 – 3)	0.88	2 (1 – 3.75)	2 (1 – 3)	0.64
ASA Score	3 (3 – 4)	3 (3 – 4)	3 (3 – 4)	3 (3 – 4)	0.80	3 (3 – 4)	3 (3 – 4)	0.03
% Redo Sternotomy	2 (2.8)	7 (1.6)	4 (2.1)	0 (0.0)	0.69	7 (1.8)	6 (1.7)	0.93
Initial Hb (g/dL)	12.8 ± 1.9	13.1 ± 2.0	13.6 ± 2.0	14.9 ± 1.9	<0.0001	12.9 ± 1.9	13.7 ± 2.0	<0.0001
Trigger Hb (g/dL) ^a	7.2 ± 0.5	7.5 ± 0.8	7.9 ± 1.0	7.9 ± 1.2	<0.0001	7.5 ± 0.7	7.7 ± 1.0	0.003
Discharge Hb (g/dL)	7.6 ± 0.3	9.0 ± 0.5	10.7 ± 0.5	12.6 ± 0.8	<0.0001	8.5 ± 0.6	10.5 ± 1.0	<0.001
Comorbidities:								
CHF	15 (21.1)	95 (21.0)	36 (18.9)	6 (16.2)	0.85	92 (23.2)	60 (16.8)	0.03

Hypertension	57 (80.3)	345 (76.2)	146 (76.4)	25 (67.6)	0.55	302 (76.0)	271 (76.1)	0.96
PVD	11 (15.5)	57 (12.6)	22 (11.5)	2 (5.4)	0.50	51 (12.9)	41 (11.5)	0.57
Pulmonary Disease	7 (9.9)	69 (15.2)	31 (16.2)	7 (18.9)	0.52	60 (15.2)	54 (15.2)	0.99
Diabetes	30 (42.3)	117 (25.8)	61 (31.9)	11 (29.7)	0.03	119 (30.1)	100 (28.1)	0.55
Renal Disease	14 (19.7)	84 (18.5)	23 (12.0)	1 (2.7)	0.01	78 (19.7)	44 (12.4)	0.006

CCI – Charlson Comorbidity Index, Hb – Hemoglobin, CHF – Congestive heart failure, PVD – Peripheral vascular disease

a – Only patients who were transfused were included.

Values are reported as Mean ± SD, No. (%), or Median (IQR) as appropriate.

Supplemental Table 3: Clinical outcomes for the four anemia cohorts and “High” discharge Hb versus “Low” discharge Hb cohorts

(Subgroup of older patients – age ≥ 65 years)

Parameter	Anemia Hb Cohorts				P-value	“Low” vs. “High” Hb Cohorts		
	“Severe”	“Moderate”	“Mild”	“No”		“Low”	“High”	P-Value
	< 8 g/dL (n=58)	8-9.9 g/dL (n=523)	10-11.9 g/dL (n=207)	≥ 12 g/dL (n=12)		(<9.4 g/dL) (n=410)	(≥9.4 g/dL) (n=390)	
% Tx RBC (WH)	36 (62.1)	394 (75.3)	146 (70.5)	3 (25.0)	0.0005	306 (74.6)	273 (70.0)	0.14
RBC unit/Pt (WH)	3.2 ± 6.7	3.3 ± 3.6	4.5 ± 6.3	0.7 ± 1.7	0.0016	3.2 ± 4.3	3.9 ± 5.2	0.04
% Tx Platelets	29 (50.0)	289 (55.3)	106 (51.2)	4 (33.3)	0.35	219 (53.4)	209 (53.6)	0.96
% Tx Plasma	33 (56.9)	275 (52.6)	96 (46.4)	3 (25.0)	0.10	188 (45.9)	205 (52.6)	0.06
% Tx RBC (Intraop)	34 (58.6)	316 (60.4)	109 (52.3)	1 (8.3)	0.001	247 (60.2)	213 (54.6)	0.11
RBC unit/Pt (Intraop)	1.2 ± 1.8	1.4 ± 1.8	1.5 ± 2.3	0.3 ± 0.9	0.15	1.35 ± 1.76	1.45 ± 2.07	0.49
LOS (days)	8 (6 – 11.3)	10 (7 – 14)	9 (7 – 15)	6.5 (5.3 – 10)	0.02	9 (7 – 13)	10 (7 – 15)	0.005
Morbidity	21 (36.2)	243 (46.5)	101 (48.8)	4 (33.3)	0.30	172 (42.0)	197 (50.5)	0.015
30-Day Readmission	11 (19.0)	56 (10.7)	18 (8.7)	0 (0.0)	0.12	47 (11.5)	38 (9.7)	0.43

Time to Readmission (days) – Median	10 (4 – 12)	12 (5 – 18)	17.5 (8.3 – 22.3)	—	0.08	12 (5 – 18)	11.5 (6 – 19)	0.66
Time to Readmission (days) – Mean	9.1 ± 5.2	12.4 ± 7.6	15.4 ± 7.5	—	0.08	12.2 ± 7.2	13.1 ± 7.8	0.60
% of Readmissions to Same Hospital	6 (54.6)	24 (42.9)	6 (33.3)	—	0.54	22 (46.8)	14 (36.8)	0.35

Tx – Transfusion, WH – Whole hospital stay, Pt – Patient, LOS – Length of stay (median)

Values are reported as Mean ± SD, No. (%), or Median (IQR) as appropriate.

Supplemental Table 4: Clinical outcomes for the four anemia cohorts and “High” discharge Hb versus “Low” discharge Hb cohorts

(Subgroup of younger patients – age < 65 years)

Parameter	Anemia Hb Cohorts					“Low” vs. “High” Hb Cohorts		
	“Severe”	“Moderate”	“Mild”	“No”	P-value	“Low”	“High”	P-Value
	< 8 g/dL (n=71)	8-9.9 g/dL (n=453)	10-11.9 g/dL (n=191)	≥ 12 g/dL (n=37)		(<9.4 g/dL) (n=396)	(≥9.4 g/dL) (n=356)	
% Tx RBC (WH)	41 (57.8)	288 (63.6)	110 (57.6)	11 (29.7)	0.0007	248 (62.6)	202 (56.7)	0.10
RBC unit/Pt (WH)	2.7 ± 6.0	2.7 ± 4.5	3.8 ± 7.8	1.3 ± 2.5	0.03	2.8 ± 5.02	3.1 ± 6.2	0.39
% Tx Platelets	38 (53.5)	234 (51.7)	93 (48.7)	8 (21.6)	0.004	208 (52.5)	165 (46.4)	0.09
% Tx Plasma	33 (46.5)	256 (56.5)	106 (55.5)	30 (81.1)	0.02	217 (54.8)	213 (59.8)	0.16
% Tx RBC (Intraop)	23 (32.4)	206 (45.5)	84 (44.0)	7 (18.9)	0.003	174 (43.9)	146 (41.0)	0.42
RBC unit/Pt (Intraop)	0.7 ± 1.5	0.9 ± 1.6	1.0 ± 1.6	0.3 ± 1.0	0.12	0.82 ± 1.57	0.88 ± 1.61	0.62
LOS (days)	7 (6 – 13)	8 (6 – 13)	9 (7 – 13)	8 (6 – 10.5)	0.07	8 (6 – 13)	9 (6 – 13)	0.18
Morbidity	28 (39.4)	224 (49.5)	109 (57.1)	16 (43.2)	0.05	181 (45.7)	196 (55.1)	0.01
30-Day Readmission	11 (15.5)	53 (11.7)	21 (11.0)	3 (8.1)	0.70	50 (12.6)	38 (10.7)	0.41

Time to Readmission (days) – Median	4 (2 – 13)	10 (6.5 – 17)	13 (6.5 – 19)	19 (7 – 30)	0.13	10 (5 – 16.3)	12.5 (6.8 – 21)	0.20
Time to Readmission (days) – Mean	9.5 ± 10.0	12.3 ± 7.9	14.0 ± 7.5	18.7 ± 11.5	0.28	11.5 ± 7.9	13.9 ± 8.5	0.19
% of Readmissions to Same Hospital	8 (72.7)	26 (49.1)	10 (47.6)	1 (33.3)	0.50	29 (58.0)	16 (42.1)	0.14

Tx – Transfusion, WH – Whole hospital stay, Pt – Patient, LOS – Length of stay (median)

Values are reported as Mean ± SD, No. (%), or Median (IQR) as appropriate.