Supplemental tables

Table S1 – Sensitivity analysis A: patients weighing < 50 kg that received enoxaparin 30 mg BID (n=64) or 40 mg BID (n=4) are included in the WB cohort.

	VTE	**DVT**	**PE**
Model diagnostics			
Observations (n)	4272	4272	4230
AUC	0.809	0.807	0.848
Hosmer-Lemeshow GOF	0.256	0.656	0.357
Variables: aOR (95% CI)			
Weight-based dosing	0.82 (0.42, 1.59)	0.93 (0.41, 2.13)	0.76 (0.38, 1.51)
Age	**1.03 (1.01, 1.05)**	**1.03 (1.01, 1.06)**	--
Obesity	1.58 (0.99, 2.49)	1.56 (0.92, 2.67)	1.84 (0.81, 4.18)
ISS	**1.02 (1.01, 1.04)**	1.02 (0.99, 1.03)	**1.03 (1.00, 1.05)**
Other race	0.69 (0.41, 1.15)	0.68 (0.39, 1.16)	--
Medicare/Medicaid	--	--	0.54 (0.27, 1.06)
Self-pay, uninsured	--	--	1.65 (0.94, 2.90)
Early prophylaxis (≤ 24 hours)	**0.46 (0.29, 0.74)**	**0.41 (0.24, 0.68)**	--
RBC transfusions	**1.06 (1.02, 1.11)**	**1.06 (1.03, 1.10)**	**1.06 (1.01, 1.12)**
Penetrating mechanism	1.48 (0.94, 2.35)	1.39 (0.88, 2.19)	1.82 (0.88, 3.75)
TXA	--	1.65 (0.99, 2.76)	--
VTE risk factors			
Head AIS ≥ 3	--	1.36 (0.91, 2.02)	0.50 (0.24, 1.07)
Chest AIS ≥ 3	1.50 (0.96, 2.34)	**1.64 (1.07, 2.51)**	--
Shock on admission	--	0.66 (0.43, 1.01)	--

Lower extremity long bone fracture	1.34 (0.94, 1.92)	--	1.69 (0.88, 3.23)
Spinal cord injury	1.72 (0.96, 3.07)	--	**2.21 (1.11, 4.41)**
Central venous catheter	**2.61 (1.38, 4.95)**	**2.43 (1.05, 5.60)**	**2.99 (1.29, 6.92)**
Femoral catheter	**2.08 (1.08, 4.00)**	2.02 (0.98, 4.18)	1.56 (0.89, 2.74)
Prolonged mechanical ventilation (≥ 4 days)	--	--	2.12 (0.97, 4.64)

Table S2 – Sensitivity analysis B: patients weighing ≥ 70 kg (n=277) that received enoxaparin 40 mg BID are included in the WB cohort.

	VTE	DVT	PE
Model diagnostics			
Observations (n)	4538	4538	4495
AUC	0.808	0.800	0.856
Hosmer-Lemeshow GOF	0.104	0.280	0.260
Variables: aOR (95% CI)			
Weight-based dosing	0.68 (0.38, 1.20)	0.72 (0.36, 1.46)	0.69 (0.44, 1.09)
Age	**1.03 (1.01, 1.05)**	1.03 (0.99, 1.06)	--
Obesity	**1.48 (1.05, 2.07)**	1.39 (0.96, 2.00)	1.75 (0.85, 3.59)
ISS	**1.03 (1.01, 1.04)**	**1.02 (1.00, 1.04)**	**1.03 (1.01, 1.05)**
Medicare/Medicaid	--	--	0.55 (0.28, 1.09)
Self-pay, uninsured			**1.67 (1.04, 2.70)**
Race, other	--	**0.71 (0.46, 1.11)**	--
Early prophylaxis (≤24 hours)	**0.53 (0.35, 0.81)**	**0.45 (0.30, 0.67)**	--
RBC transfusions	**1.06 (1.02, 1.09)**	**1.05 (1.02, 1.08)**	**1.07 (1.03, 1.12)**
Penetrating mechanism	1.44 (0.98, 2.12)	--	**1.85 (1.01, 3.40)**
TXA	--	1.51 (0.92, 2.47)	--
VTE risk factors			
Chest AIS ≥ 3	1.38 (0.93, 2.07)	1.38 (0.93, 2.06)	--
Lower extremity long bone fracture	1.32 (0.97, 1.80)	--	1.56 (0.91, 2.70)
Spinal cord injury	**1.73 (1.01, 2.98)**	--	**2.60 (1.31, 5.15)**
Central venous catheter	**2.94 (1.61, 5.38)**	**2.61 (1.27, 5.36)**	**5.05 (2.55, 10.00)**
Femoral catheter	**1.65 (0.83, 3.31)**	1.81 (0.83, 3.93	--

Table S3 – Sensitivity analysis C: subgroup analysis of obese patients (BMI ≥ 30) that received either SFD (n = 1002) or WB (n = 36) enoxaparin dosing for VTE prophylaxis. Analysis for PE risk was not completed due to the very low number of events.

	VTE	**DVT**
Model diagnostics		
Observations (n)	1227	1227
AUC	0.816	0.797
Hosmer-Lemeshow GOF	0.913	0.745
Variables: aOR (95% CI)		
Weight-based dosing	0.70 (0.27, 1.78)	0.84 (0.25, 2.76)
Age	--	--
ISS	**1.04 (1.02, .106)**	**1.03 (0.99, 1.07)**
Personal history of VTE		**3.76 (1.08, 13.02)**
Early prophylaxis (≤ 48 days)	0.64 (0.39, 1.06)	--
Penetrating mechanism	**2.10 (1.22, 3.61)**	--
TXA	2.07 (0.97, 4.42)	**3.23 (1.66, 6.29)**
VTE risk factors		
Shock	**2.82 (1.54, 5.17)**	--
Chest AIS ≥ 3	--	**1.92 (1.25, 2.96)**
Abdomen AIS ≥ 3	--	1.68 (0.79, 3.57)
Lower extremity long bone fracture	1.85 (0.97, 3.50)	--
Spinal cord injury	**2.24 (1.16, 4.31)**	--
Central venous catheter	**2.87 (1.31, 6.30)**	2.33 (0.93, 5.84)

Table S4 – Power calculations to determine the number of observations needed in WB and SFD arms to detect a statistically significant difference of treatment effect for a VTE incidence of 4-30% among the SFD cohort. Alpha = 0.05. Beta = 0.80. Assuming 1:3 ratio of WB to SFD patients. Shaded squares indicate conditions under which this analysis would be adequately powered.

	% reduction in VTE incidence among WB cohort		
	15%	30%	50%
VTE incidence in SFD cohort			
4%	WB: 10,489 SFD: 31,789	WB: 2458 SFD: 7447	WB: 803 SFD: 2434
7%	WB: 5818 SFD: 17,630	WB: 1366 SFD: 4138	WB: 447 SFD: 1355
12%	WB: 3222 SFD: 9765	WB: 759 SFD: 2299	WB: 249 SFD: 756
20%	WB: 1769 SFD: 5361	WB: 419 SFD: 1270	WB: 139 SFD: 420
30%	WB: 1042 SFD: 3159	WB: 755 SFD: 249	WB: 80 SFD: 252

Table S5 – STROBE checklist for cohort study

	Item No	Completed?	Recommendation	Page number
Title and abstract	1	☑	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Title page
		☑	(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract
			Introduction	
Background/rationale	2	☑	Explain the scientific background and rationale for the investigation being reported	1
Objectives	3	☑	State specific objectives, including any prespecified hypotheses	2
			Methods	
Study design	4	☑	Present key elements of study design early in the paper	2-7
Setting	5	☑	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2-3
Participants	6	☑	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	2-4
		n/a	(*b*) For matched studies, give matching criteria and number of exposed and unexposed	n/a
Variables	7	☑	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	3-4
Data sources/ measurement	8*	☑	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	2-3
Bias	9	☑	Describe any efforts to address potential sources of bias	4-6
Study size	10	☑	Explain how the study size was arrived at	4-5 Figure 1
Quantitative variables	11	☑	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	4-7
Statistical methods	12	☑	(*a*) Describe all statistical methods, including those used to control for confounding	4-7
		☑	(*b*) Describe any methods used to examine subgroups and interactions	4-7 Supplement
		☑	(*c*) Explain how missing data were addressed	4 Figure 1
		n/a	(*d*) If applicable, explain how loss to follow-up was addressed	n/a
		☑	(*e*) Describe any sensitivity analyses	5-6 Supplement
			Results	
Participants	13*	☑	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined	4-8 Figure 1

			for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	
		☑	(b) Give reasons for non-participation at each stage	4-8 Figure 1
		☑	(c) Consider use of a flow diagram	Figure 1
Descriptive data	14*	☑	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Table 1, 2
		☑	(b) Indicate number of participants with missing data for each variable of interest	Table 1
		n/a	(c) Summarise follow-up time (eg, average and total amount)	n/a
Outcome data	15*	☑	Report numbers of outcome events or summary measures over time	8-9 Supplement
Main results	16	☑	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	9-10 Table 3 Supplement
		☑	(*b*) Report category boundaries when continuous variables were categorized	4
			(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	
Other analyses	17	☑	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	5-7 9-10 Supplement
			Discussion	
Key results	18	☑	Summarise key results with reference to study objectives	10-11
Limitations	19	☑	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	13
Interpretation	20	☑	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	12-14
Generalisability	21	☑	Discuss the generalisability (external validity) of the study results	12-14
			Other information	
Funding	22	☑	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	7

*Give information separately for exposed and unexposed groups.

Table S6 – Unadjusted primary and secondary outcomes for the full cohort, the early prophylaxis (≤ 24 hours) subgroup, and obese subgroup (BMI ≥ 30 kg/m^2)

Full cohort	**Weight-based n = 1065**	**Standard n = 3295**	**p-value**
Primary outcome			
VTE	3.1%	3.9%	0.221
Secondary outcomes			
DVT	2.5%	2.9%	0.486
PE	1.0%	1.3%	0.531
Complications			
Any complication	0.9%	1.0%	0.856*
Solid organ bleed	0.2%	0.1%	0.252*
GI bleed	0.1%	0.2%	0.688*
Intracranial bleed	0.1%	0.2%	1.000*
Early prophylaxis cohort	**Weight-based n = 567**	**Standard n = 1777**	**p-value**
Primary outcome			
VTE	1.4%	2.1%	0.311
Secondary outcomes			
DVT	1.4%	2.0%	0.333
PE	0.9%	1.2%	0.551*
Complications			
Any complication	0.6%	1.0%	0.306*
Solid organ bleed	0.2%	0.1%	0.246*
GI bleed	0.1%	0.3%	0.890*
Intracranial bleed	0%	0.1%	1.000*
Obese cohort	**Weight-based**	**Standard**	**p-value**

	n = 36	**n = 1002**	
Primary outcome			
VTE	11.1%	4.2%	0.070*
Secondary outcomes			
DVT	11.1%	3.0%	0.027*
PE	2.8%	1.5%	0.434*
Complications			
Any complication	2.8%	1.1%	0.347*
Solid organ bleed	0%	0%	n/a
GI bleed	0%	0.1%	1.000*
Intracranial bleed	0%	0.2%	1.000*

* Fisher's exact test