



# Dutch COVID & Thrombosis Coalition

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# DISCLOSURES

<b>Research Support/P.I.</b>	<b>No relevant conflicts of interest to declare</b>
<b>Employee</b>	<b>No relevant conflicts of interest to declare</b>
<b>Consultant</b>	<b>No relevant conflicts of interest to declare</b>
<b>Major Stockholder</b>	<b>No relevant conflicts of interest to declare</b>
<b>Speakers Bureau</b>	<b>No relevant conflicts of interest to declare</b>
<b>Honoraria</b>	<b>No relevant conflicts of interest to declare</b>
<b>Scientific Advisory Board</b>	<b>No relevant conflicts of interest to declare</b>



= Understand and prevent COVID-19 associated thrombosis



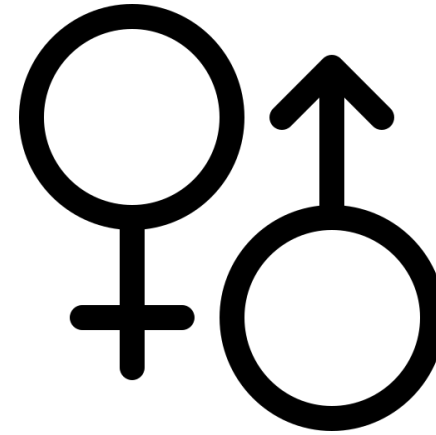
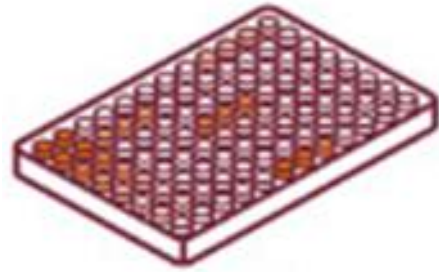
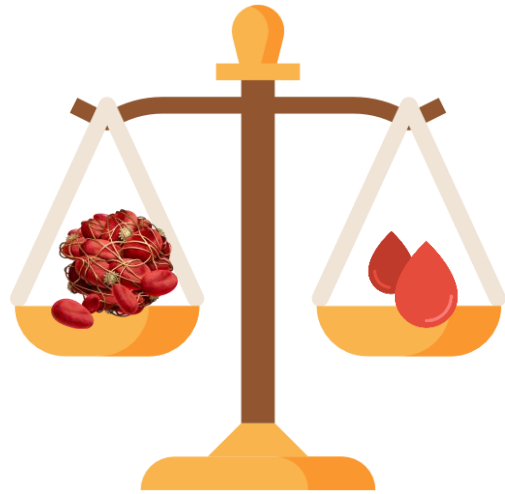
1. Underlying pathogenic mechanisms of COVID-19 associated thrombosis
2. Interaction between SARS-CoV-2, anticoagulation and thrombosis



3. Optimal thrombosis prophylaxis and treatment
4. Identification of riskfactors associated with thrombosis
5. Long-term consequences of COVID-19 associated thrombosis

# WP3

## Optimal prophylaxis and treatment



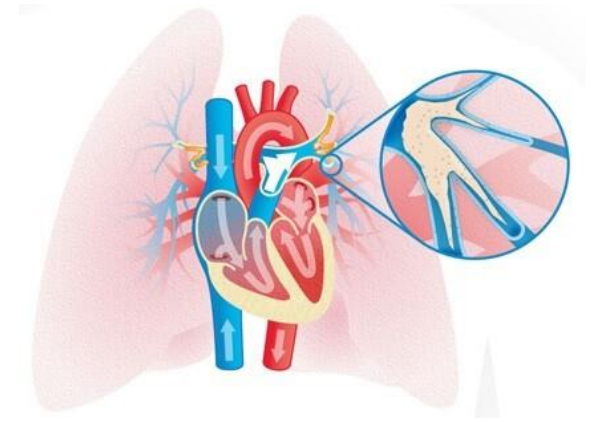
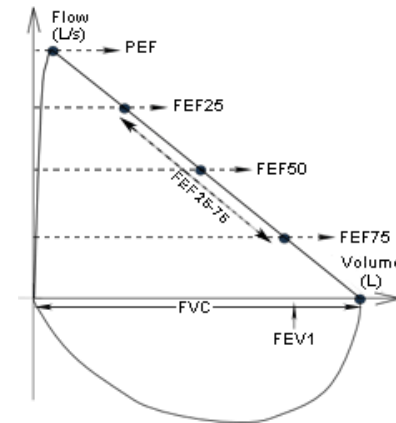
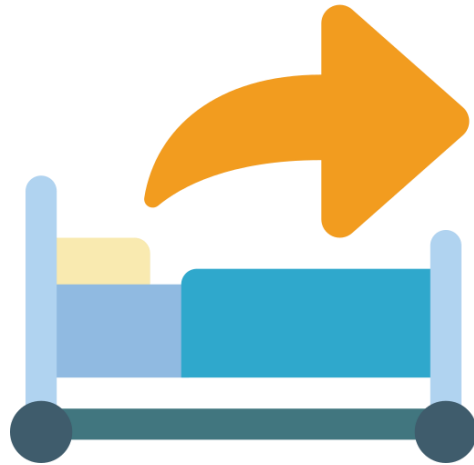
# WP4

Predict the risk of VTE in admitted patients with COVID-19



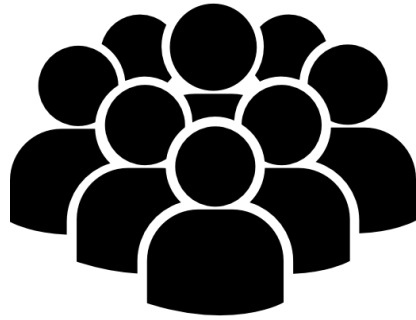
# WP5

## Long term consequences of VTE



# DATA

## Database



Hospitalized COVID-19 patients

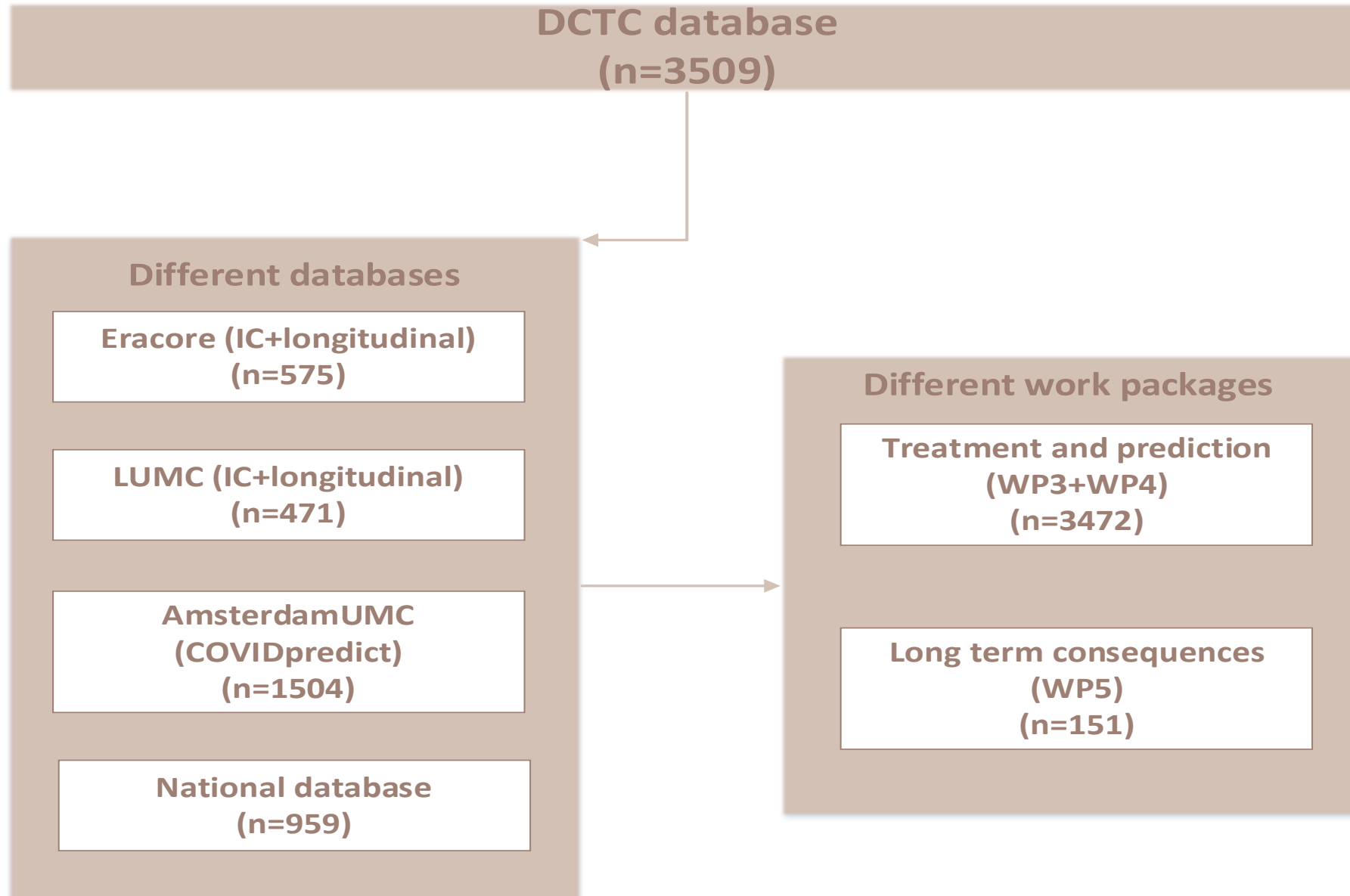


National database  
LUMC database  
Eracore database  
MUMC database



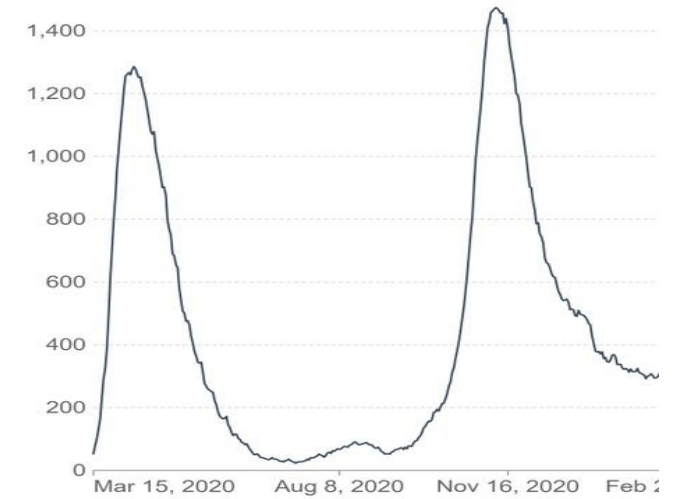
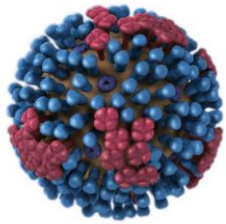
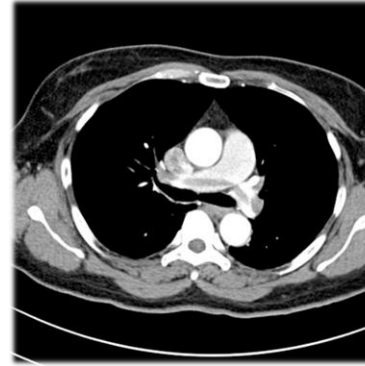
Demographic & health data  
Thrombosis & bleeding  
Longitudinal data  
ISARIC + ISTH

# INCLUSIONS





# PUBLICATIONS



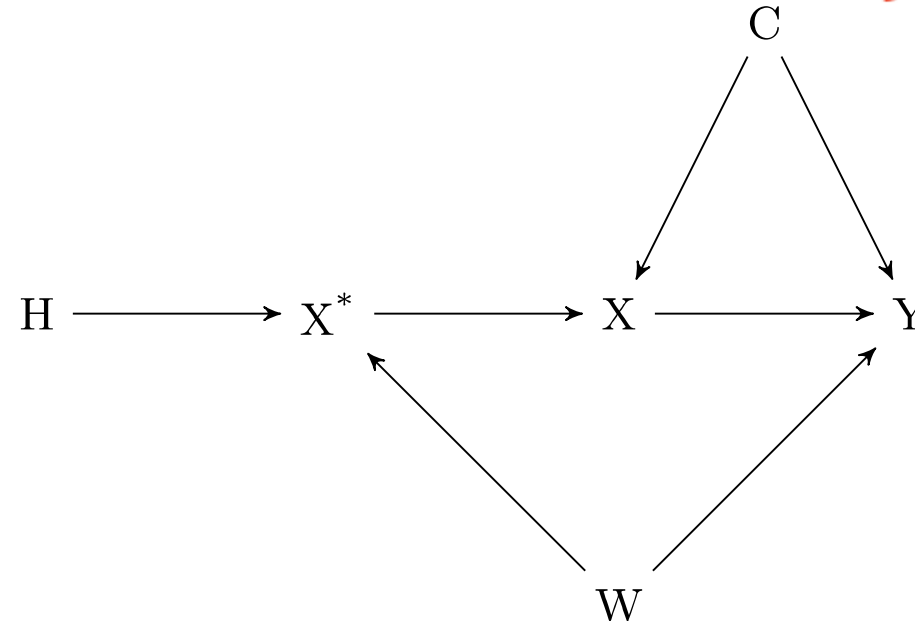
Source: Official data collated by Our World in Data

# CAPACITY

Protocolized LMWH dose



CAPACITY



Assumptions:

1. Relationship between protocolized LMWH – actual LMWH
2. Relationship between protocolized LMWH and outcome should not be disturbed by confounding
3. Protocolized LMWH should only affect the outcome through LMWH dose

# PATIENT CHARACTERISTICS

**Table 1. Clinical characteristics of the patients at hospital admission, per tertile of protocolised LMWH dose (IE anti-Xa)**

	<b>2500-3800</b>	<b>3800-5700</b>	<b>5700-18000</b>	Missing (%)
Number of patients	312	283	344	
<b>Demographics</b>				
Female (%)	94 (30.1)	83 (29.3)	80 (23.3)	0
Weight (mean (SD))	86.6 (16.9)	85.2 (15.3)	91.0 (18.5)	6.9
Age (median [IQR])	65.0 [57.0, 72.0]	65.0 [60.0, 72.0]	64.0 [54.0, 71.0]	0
<b>Clinical characteristics</b>				
Temperature (mean (SD)) (degree Celsius)	37.8 (1.1)	38.1 (1.0)	37.9 (1.1)	16.3
Heart rate (mean (SD)) (beats per minute)	88.0 (17.8)	90.7 (16.9)	91.8 (20.0)	13.2
Systolic blood pressure (mean (SD)) (mmHg)	130.0 (22.9)	133.7 (22.8)	134.3 (22.2)	14.8
Diastolic blood pressure (mean (SD)) (mmHg)	71.0 (14.6)	74.6 (15.6)	74.7 (15.5)	14.8
Respiratory rate (median [IQR]) (breaths per minute)	22.0 [18.0, 27.0]	24.0 [20.0, 30.0]	24.0 [19.0, 28.0]	20.8
D-dimer (median [IQR]) (mg/L)	1.3 [0.7, 3.1]	1.5 [1.0, 4.0]	1.5 [0.8, 3.8]	72.5
<b>Comorbidities</b>				
Diabetes mellitus (%)	72 (23.6)	65 (23.0)	80 (23.6)	1.4
Lipidaemia (%)	71 (24.4)	92 (33.8)	78 (25.7)	7.7
Hypertension (%)	118 (38.8)	112 (40.1)	125 (37.5)	2.4
Chronic kidney disease (%)	20 ( 6.4)	21 ( 7.4)	19 ( 5.5)	0
Chronic obstructive pulmonary disease (%)	26 ( 8.4)	22 ( 7.8)	28 ( 8.2)	0.3
Cardiac diagnosis (%)	52 (16.7)	60 (21.3)	84 (24.5)	0.2
<b>Hospital stay</b>				
Transferred from another hospital (%)	107 (34.3)	86 (30.4)	127 (36.9)	0

# CUMULATIVE INCIDENCE PE

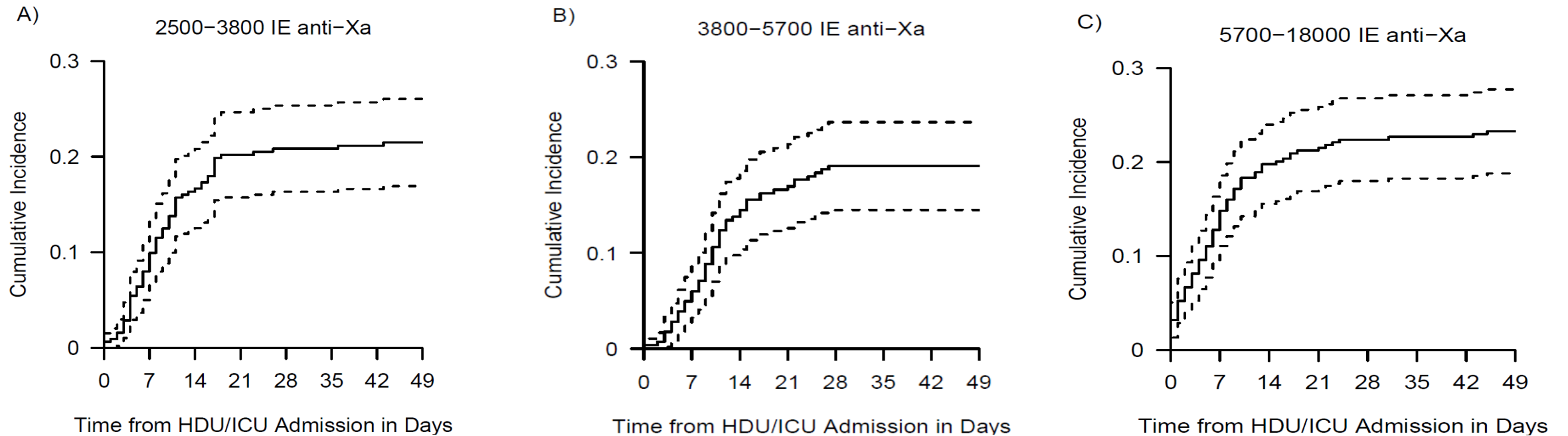


Figure 1. Cumulative incidence for pulmonary embolism in a competing risk analysis

# CUMULATIVE INCIDENCE MORTALITY

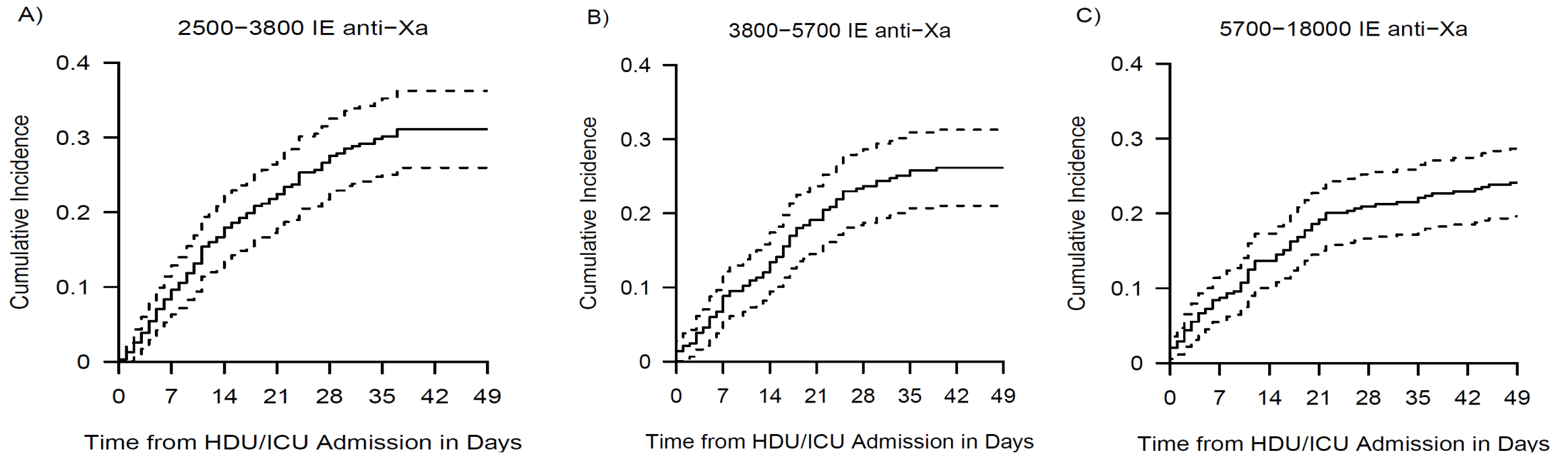


Figure 2. Cumulative incidence for mortality in a competing risk analysis

# RELATIONSHIP LMWH

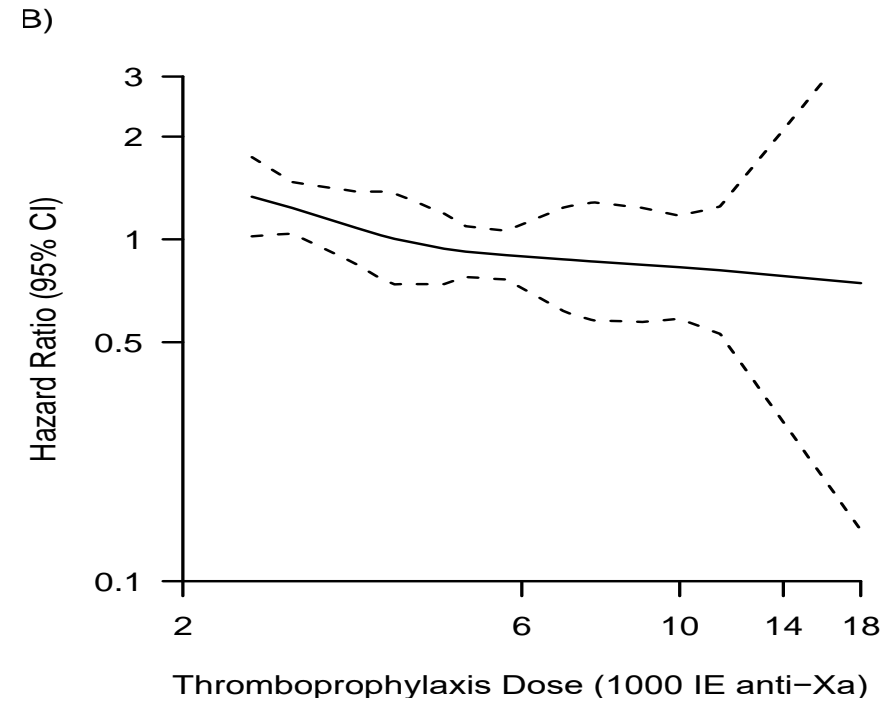
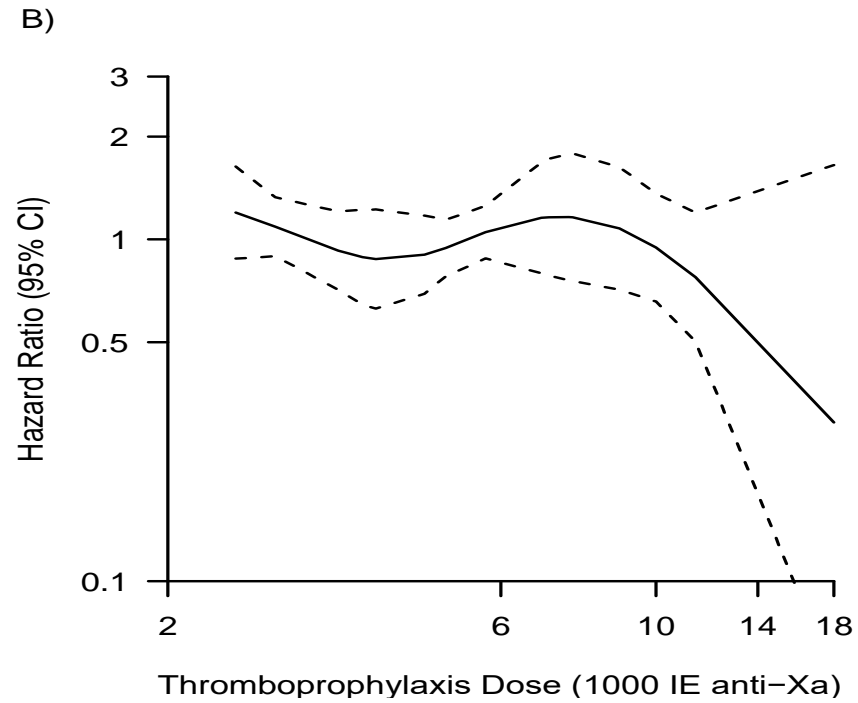
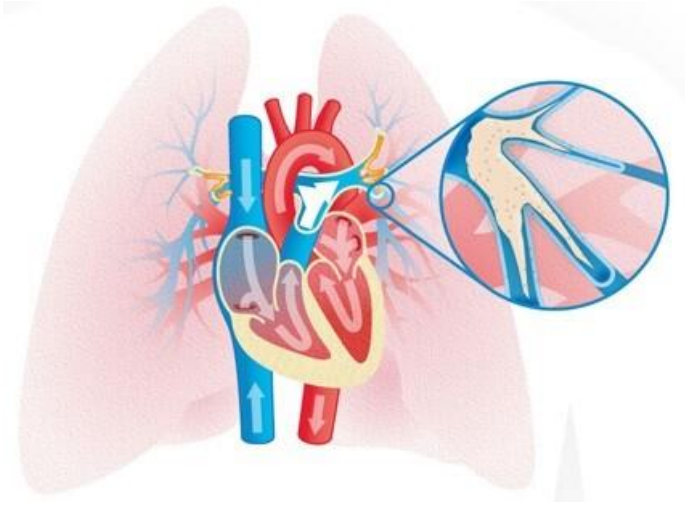


Figure 3. Relationship between LMWH dose and pulmonary embolism (right) & mortality (left)

# CONCLUSIONS



# LIMITATIONS

