

Supplementary material

Table S1. ORBIT, HAEMORR²HAGES, ATRIA, HAS-BLED, VTE-BLEED, and RIETE scores, and staging systems for risk of major bleeding complications [1-5].

ORBIT score	Points
Age > 74 years	+1
Bleeding history (i.e. Any history of GI bleeding, intracranial bleeding, or hemorrhagic stroke)	+2
GFR <60 mL/min/1.73 m ²	+1
Treatment with antiplatelet agents	+1
HEMORR²HAGES score	points
Hepatic or Renal Disease	+1
Ethanol (Alcohol) Abuse	+1
Age > 75 years	+1
Reduced Platelet Count or Function	
Includes aspirin use, any thrombocytopenia or blood dyscrasia, like hemophilia	+1
History of past bleeding	+2
Hypertension (uncontrolled)	+1
Anemia	
Hb <13 g/dL for Men; Hb <12 g/dL for Women	+1
Genetic Factors	
CYP 2C9 single-nucleotide polymorphisms	+1
Excessive fall risk	+1
Stroke history	+1
ATRIA score	Points
Anemia	
Hb <13 g/dL (Male), <12 g/dL (Female)	+3
Severe Renal Disease	
Glomerular filtration rate <30 mL/min or dialysis-dependent	+3
Age > 74 years	+2
Any Prior Hemorrhage Diagnosis (e.g. GI bleed, intracranial hemorrhage)	+1
Hypertension history	+1
HAS-BLED score	Points
Hypertension	
Uncontrolled, >160 mmHg systolic	+1
Renal disease	
Dialysis, transplant, Cr >2.26 mg/dL or >200 µmol/L	+1
Liver disease	
Cirrhosis or bilirubin >2x normal with AST/ALT >3x normal	+1
Stroke history	+1
Prior major bleeding or predisposition to bleeding	+1

Labile INR	
Unstable/high INRs, time in therapeutic range <60%	+1
Age > 65 years	+1
Medication usage predisposing to bleeding Aspirin, clopidogrel, NSAIDs	+1
Alcohol use ≥8 drinks/week	+1
VTE-BLEED score	Points
Active cancer	+ 2
Male Patient with Uncontrolled Hypertension [Systolic BP ≥140mm Hg]	+1
Anemia [Hb <130g/L Men. Hb <120g/L Women]	+ 1.5
History of Bleeding [Major or non-major clinically relevant bleeding]	+ 1.5
Renal Dysfunction [CrCl 30-60 ml/min]	+ 1.5
Age ≥60 years	+ 1.5
RIETE score	Points
Recent Major Bleeding	+ 2
Malignancy	+ 1
Anaemia [Hb <130g/L Men. Hb <120g/L Women]	+ 1.5
Renal Dysfunction [Creatinine <1.2 mg/dL]	+ 1.5
Clinically overt PE	+1
Age >75 yrs	+ 1

ORBIT score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (ORBIT score; range, 0-7). ORBIT risk staging increased with point totals: low-risk (< 2 points), intermediate-risk (3 point), and high-risk (4-7 points). HEMORR²HAGES score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (HEMORR²HAGES score; range, 0-12). ORBIT risk staging increased with point totals: low-risk (< 2 points), intermediate-risk (3 point), and high-risk (4-7 points). Atria score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (Atria score; range, 0-10). Atria risk staging increased with point totals: low-risk (< 4 points), intermediate-risk (4 point), and high-risk (> 4 points). HAS-BLED score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (HAS-BLED score; range, 0-9). HAS-BLED risk staging increased with point totals: relatively low-risk (0-1 points), intermediate-risk (3 point), and high-risk (> 3 points). VTEBLEED score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (VTE-BLEED score; range, 0-9). VTE-BLEED risk staging increased with point totals: low-risk (0-1points), intermediate-risk (2, 3 points) or high-risk (≥ 3 points). RIETE score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (RIETE risk score; range, 0-8). RIETE risk staging increased with point totals: low-risk (0 points), intermediate-risk (1-4 points), or high-risk (>4 points). Abbreviations: GI, gastro-intestinal; Hb, hemoglobin; CR, creatinine; AST, Aspartate aminotransférase ; ALT, Alanine aminotransférase ; INR, international

normalized ratio; NSAIDs, Non-steroidal anti-inflammatory drugs ; CrCl, creatinine clearance; PE, pulmonary embolism.

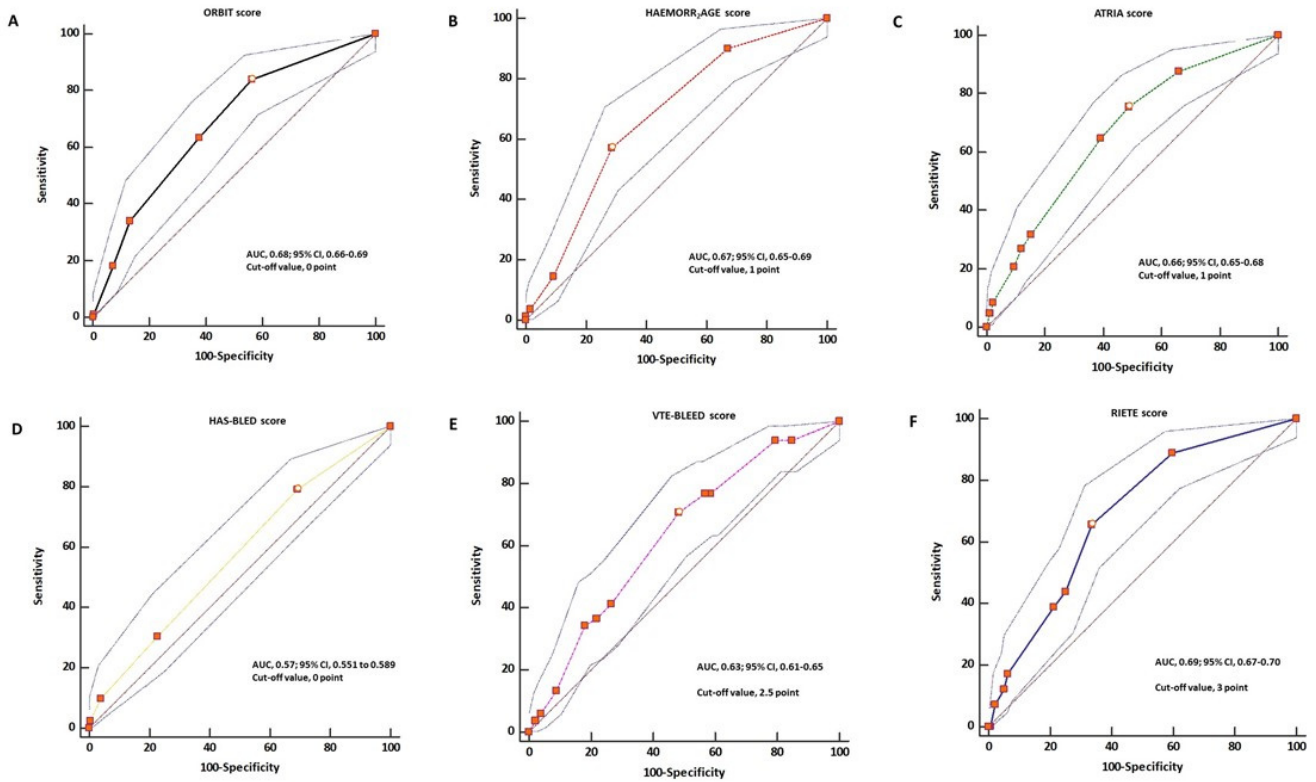


Figure S1: Receiving operative curve assessment for dichotomy isolation of the bleeding risk scores (A, ORBIT score; B, HAEMORR₂AGE score; C, ATRIA score; D, HAS-BLED score; E, VTE-BLEED score, and F, RIETE score). ORBIT score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (ORBIT score; range, 0-7). ORBIT risk staging increased with point totals: low-risk (< 2 points), intermediate-risk (3 point), and high-risk (4-7 points). HEMORR₂HAGES score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (HEMORR₂HAGES score; range, 0-12). ORBIT risk staging increased with point totals: low-risk (< 2 points), intermediate-risk (3 point), and high-risk (4-7 points). Atria score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (Atria score; range, 0-10). Atria risk staging increased with point totals: low-risk (< 4 points), intermediate-risk (4 point), and high-risk (> 4 points). HAS-BLED score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (HAS-BLED score; range, 0-9). HAS-BLED risk staging increased with point totals: relatively low-risk (0-1 points), intermediate-risk (3 point), and high-risk (> 3 points). VTEBLEED score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (VTE-BLEED score; range, 0-9). VTE-BLEED risk staging increased with point totals: low-risk (0-1points), intermediate-risk (2, 3 points) or high-risk (≥ 3 points). RIETE score: Points are assigned for the presence of each variable. The sum of the variable points produces the total point score (RIETE risk score; range, 0-8). RIETE risk staging increased with point totals: low-risk (0 points), intermediate-risk (1-4 points), or high-risk (>4 points).

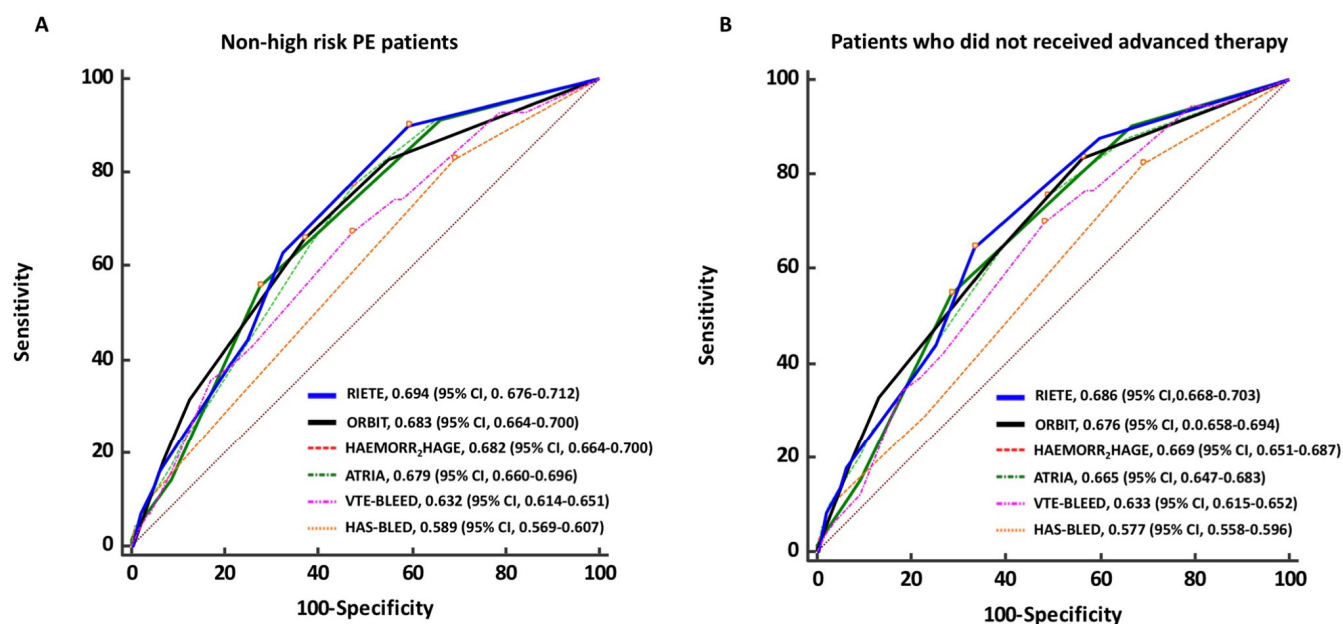


Figure S2. Sensitivity analysis with receiving operative curves, and the corresponding C-indices of bleeding risk scores (i.e. ORBIT, HAEMORR₂AGE, ATRIA, HAS-BLED, VTE-BLEED, and RIETE scores) in non-high-risk PE patients ($n = 2,621$) (A) and in patient who did not received advanced therapy ($n=2,634$) (B). PE: pulmonary embolism.

References

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