Article:

Table 1: Widely evaluated and commonly used Risk Assessment Models (RAMs) for prediction of VTE risk during emergency hospitalisation.

	UK DoH VTE Risk Assessment Tool	Caprini score for VTE	Padua Prediction Score	IMPROVE Predictive score	IMPROVE Associative score	Geneva Risk Score	Kucher Score
RAM Characteristics							
Author and Year	NICE 2018[1]	Caprini 2005[2]	Barbar 2010[3]	Tapson 2007[4]	Spyropoulos 2011[5]	Chopard 2006[6]	Kucher 2005[7]
Applicable cohort	Surgical and medical	Surgical and medical	Medical	Medical	Medical	Medical	Surgical and medical
Design	Dichotomous variables and threshold	Ordinal variables with cumulative score	Dichotomous variables with cumulative score	Dichotomous variables with cumulative score	Dichotomous variables with cumulative score	Dichotomous variables with cumulative score	Dichotomous variables with cumulative score
Number of VTE risk variables	19	39	11	4	7	19	8
C-Statistic (range)	0.66 (1 study)	0.53 - 0.87 (11 studies)	0.594 - 0.716 (4 studies)	0.57 – 0.65 (2 studies)	0.66 – 0.7731 (3 studies)	0.61 (1 study)	0.563-0.756 (4 studies)
When is pharmacological thromboprophylaxis recommended (high risk identified)?	Any thrombosis risk factor identified[A]	Score $\geq$5	Score $\geq$4	Score $\geq$1	Score $\geq$3	Score $\geq$3	Score $\geq$4
What proportion of patients are likely to be classified as high risk?[8-10]	80%	82%	48%	67%	32%	65%	NR
Clinical Variables							
Patient related							
Active Cancer	Yes	Yes	Yes	Yes	Yes	Yes	Yes (Major risk)

[A] In medically ill patients, this score is only applied for people with significantly reduced mobility.

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Age	Yes (≥60)	Yes	Yes (≥70)	Yes (≥60)	Yes (≥60)	Yes (≥60)	Yes (≥70 Minor risk)
Dehydration	Yes	No	No	No	No	Yes	No
Thrombophilia	Yes (generic)	Yes (generic and named conditions)	Yes (generic)	Yes (generic)	Yes (generic)	Yes (generic)	Yes (Major risk)
Obesity	Yes (≥30kg/m²)	Yes (≥25kg/m²)	Yes (≥30kg/m²)	No	No	Yes (≥30kg/m²)	Yes (≥30kg/m² Minor risk)
Comorbidity	Yes (one or more)	Yes (1 to 5 points for individual comorbidities)	Yes (1 point each for several individual comorbidities)	No	No	Yes (2 points each for several individual comorbidities)	No
Prior VTE	Yes	Yes	Yes	Yes	Yes	Yes	Yes (Major risk)
Family history of VTE	Yes (first degree relative)	Yes	No	No	No	No	No
Use of HRT	Yes	Yes	Yes	No	No	Yes	Yes (Minor risk)
Use of oestrogen containing contraceptive therapy	Yes	Yes	Yes	No	No	Yes	Yes (Minor risk)
Varicose veins	Yes (with phlebitis)	Yes	No	No	No	No	No
Pregnancy or postpartum period	Yes	No	No	No	No	Yes	No
Unexplained stillbirth or spontaneous abortions	No	Yes (≥3 spontaneous abortions)	No	No	No	No	No
Current swollen legs	No	Yes	No	No	No	Yes	No
Current central venous access	No	Yes	No	No	No	No	No
Recent major surgery	No	Yes (<1 month)	Yes (<1 month)	No	No	No	No
Recent use of plaster cast immobilisation	No	Yes (<1 month)	No	No	No	No	No

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Lower limb paralysis	No	Yes	No	No	Yes	No	No
Travel related	No	No	No	No	No	Yes (>6hours)	No
Admission related							
Reduced mobility	Yes (≥3 days)	Yes (variable points)	Yes	No	Yes (≥7days)	Yes (≥3 days)	Yes (Minor risk)
Arthroplasty surgery	Yes	Yes	No	No	No	No	No
Hip Fracture	Yes	Yes	No	No	No	No	No
Pelvic or lower limb surgery	Yes (total anaesthetic and surgical time >60 mins)	Yes (arthroscopic)	No	No	No	No	No
Total anaesthetic and surgical time	Yes (≥90mins)	Yes (≥45mins)	No	No	No	No	Yes (≥60mins intermediate risk)
Acute surgical admission	Yes (Inflammatory or intra-abdominal condition)	No	No	No	No	No	No
Acute infection	Yes (within comorbidities)	No	Yes	No	No	Yes	No
Acute rheumatologic disorder	Yes (within comorbidities)	No	Yes	No	No	Yes	No
Critical Care admission	Yes	No	No	No	Yes	No	No
Surgery leading to reduced mobility	Yes	Yes	No	No	No	No	No
'Other risk factors'	No	Yes	No	No	No	No	No

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