RESPIRATORY
PE SCORING SYSTEMS

Validated clinical prediction rules should be used to estimate pretest probability of pulmonary embolism and to interpret test results. The 2 scoring systems available to stratify the patient's risk of PE are:

- Well's score
- Modified Geneva score

Well's score

Clinical Characteristic	Score
Previous PE or DVT	+ 1.5
Heart rate >100 bpm	+ 1.5
Immobilization>3 days or major surgery within last 1 month	+ 1.5
Clinical signs & symptoms of DVT	+ 3
Alternative diagnosis less likely than PE	+ 3
Haemoptysis	+ 1
Active cancer	+ 1
Clinical Probability of Pulmonary Embolism	**Score**
Low	0-1
Intermediate	2-6
High	≥6

Modified Geneva score

Risk Factors	Points
Age > 65 yrs	1
Previous DVT or PE	3
Surgery under GA or fracture of the lower limbs within 1 month	2
Active malignant condition (solid or haematological, currently active or considered cured < 1 yr)	2
Symptoms	
Unilateral lower limb pain	3
Haemoptysis	2
Clinical Signs	
Heart rate 75-94 bpm	3
Heart rate ≥95 bpm	5
Pain on lower limb deep venous palpation and unilateral oedema	4
Clinical Probability	**Score**
Low	0-3
Intermediate	4-10
High	≥11

Clinical probabilities

Low – 8%

Intermediate – 28%

High – 74%

PERC

= Pulmonary **E**mbolism **R**ule Out **C**riteria

This includes 8 variables to rule out pulmonary embolism when pre-test probability for having a PE is low.

Pulmonary Embolism Rule out Criteria (PERC) are as follows:

- Age < 50 years
- HR < 100 bpm
- SaO2 on room air > 94%
- No history of venous thromboembolism
- No recent (<4 wks) trauma or surgery
- No unilateral leg swelling
- No haemoptysis
- No exogenous oestrogen

There is no need for further investigation of PE with a d-dimer or CTPA if:

1. None of the above eight variables are positive
2. There is a low pretest probability that the patient has pulmonary embolism.

In this case, the risks of testing are greater than the risk of PE and no further investigation is required.

Patients at intermediate risk, or for those at low risk who do not meet all of the rule-out criteria, require a high-sensitivity D-dimer test initially. An elevated d-dimer then requires further investigation with a CTPA.

Patients at high risk should proceed straight to imaging with CTPA. A negative D-dimer test will not eliminate the need for imaging in these patients.