



Risk Stratification Tool for Acute Pulmonary Embolism

(Assessment of Risk of In-Hospital and 30-day Mortality with Acute Pulmonary Embolism)

	Hemodynamic Instability*	PESI Class III-V or sPESI >1**	RV Dysfunction*	Elevated Cardiac Troponin Levels
High Risk	+	+	+	+
Intermediate High Risk	-	+	+	+
Intermediate Low Risk	-	+	One or none positive	
Low Risk	-	-	-	-

*Hemodynamic instability includes cardiac arrest, persistent systolic BP < than 90 mmHg, requirement of vasopressors to maintain systolic BP > 90 mmHg in combination with signs of end-organ hypoperfusion, or persistent systolic blood pressure > than 40 mmHG lower than a patient's norm for > than 15 minutes, not due to new onset arrhythmia, hypovolemia, or sepsis.

**Hemodynamic instability, combined with PE confirmation on CTPA and/or evidence of RV dysfunction on TTE, is sufficient to classify a patient into the high-risk PE category. In these cases, neither calculation of the PESI nor measurement of troponins or other cardiac biomarkers is necessary.

+Imaging signs of RV dysfunction include: RV:LV ratio > than 1.0 on CTPA and/or TTE, McConnell sign, decreased peak systolic velocity of tricuspid annulus (S) < 9.5 cm/s, tricuspid annular plane systolic excursion (TAPSE) < 16 mm, and/or presence of right heart clot-in-transit.

Reference: Konstantinides SV, Meyer G, Becattini C, et al. 2019 ESC Guidelines for the diagnosis and management of acute pulmonary embolism developed in collaboration with the European Respiratory Society (ERS) Eur Heart J, 2020; 41(4):543-603.

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