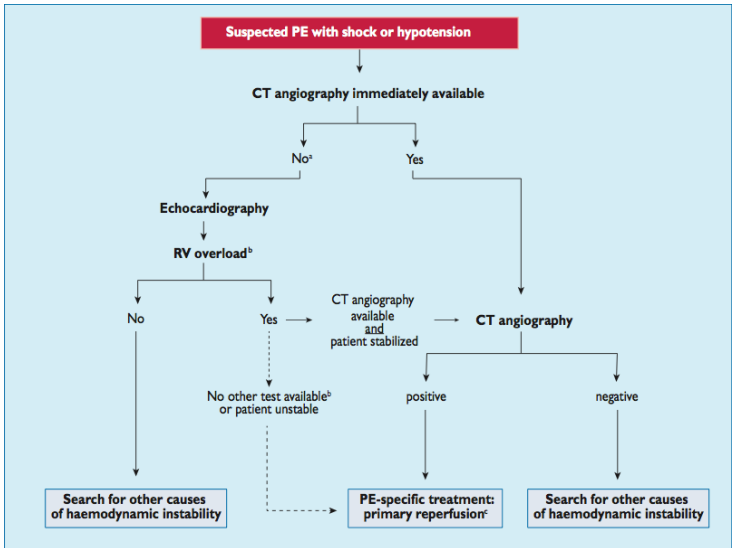
PULMONARY EMBOLISM

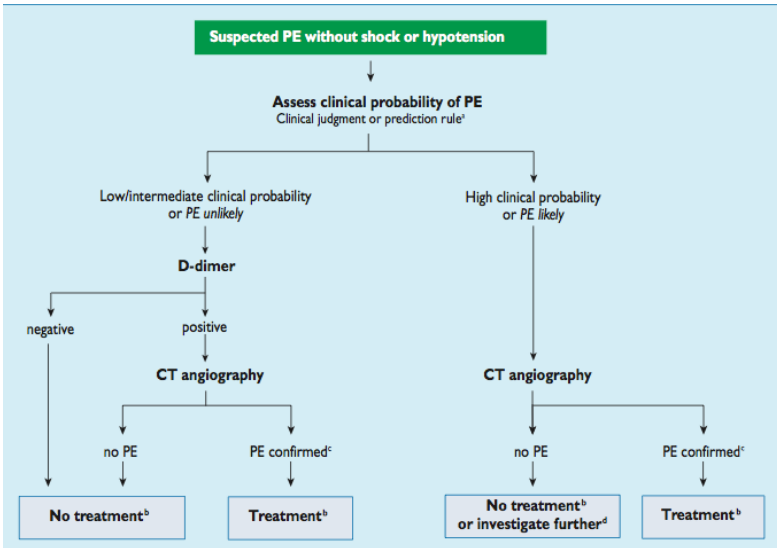
2014 ESC Guidelines on the diagnosis and management of acute pulmonary embolism

Early mortality risk		Shock or hypotension	sPESI ≥ 1	RV dysfunktion (Echo / CT)	Biomarkers (Troponin, BNP)
High		**+**	**(+)**	**+**	**(+)**
Intermediate	Intermed.-high	**-**	**+**	Both positive	
	Intermed.-low	**-**	**+**	Either one (or none) positive	
Low		**-**	**-**	Assessment optional, both neg.	

sPESI (simplified PE severity index)	
Age >80	1 point
History of Cancer	1 point
History chronic cardiopulmonary disease	1 point
heart rate >110 / min	1 point
BP (syst.) <100 mmHg	1 point
SpO2 (art.) < 90%	1 point

ICU / IMC:
High risk + Intermediate-high risk





HIGH RISK

Anticoagulation: Heparin
Catecholamines: start with Noradrenaline
Ventilation: VT 6/kg, low PEEP, (Pplat <30)

Thrombolysis

Alteplase (Actilyse): 100mg / 2h OR
0,6mg/kg / 15min (max 50mg)
(unter continuous heparin)

Consider

Dobutamine or Epinephrine, Levosimendan
VA-ECMO

Intermediate-High risk

Anticoagulation + close (ICU/IMC monitoring)

Consider Half dosage thrombolysis

Anticoagulation

Min. 3 months (consider 6 mon with low bleeding risk)
Consider longer with cancer
Lifelong after 2nd unprovoked PE

Low / Intermed. Risk: primarily LMWH or Fondaparinux
then
Coumarins / Rivaroxaban / Dabigatran / Apixaban
all equal (with good renal function)

Specials

Pregnancy: D-Dimer controversial
Typ. symptoms + TVT = PE
CXR + Perfusion-Scinti
Primarily LMWH
Worst Case: Thrombolysis

Cancer: D-Dimer often elevated
low-risk PE -> LMWH / Coumar.