Personalised Thrombolysis for Acute PE in the ICU

Key takeaways from a single-centre randomised feasibility trial

Kallai et al., Intensive Care Medicine Experimental (2026)

1 Study at a glance

Standard care

- 100 mg rtPA over 2 h
- Fixed-dose systemic thrombolysis

ClotPro-guided approach

- Median 32 mg rtPA
- Median infusion 8.5 h
- Personalised low-dose, prolonged thrombolysis

Protocol adherence: **95%**

2 Why this matters for ICU patients

- Lower thrombolytic exposure
- Less thrombolysis-induced coagulopathy
- Preserved haemostatic reserve
- Real-time treatment adjustment using viscoelastometry + echo

Goal: effective reperfusion while reducing bleeding risk

3 Key results

Right ventricular recovery
RV dysfunction resolved in all ClotPro-guided patients; persisted in 2 control patients

Bleeding
Major bleeding: 1/12 in ClotPro-guided group vs 2/7 in control

Coagulation
Guided group showed no coagulopathy

Dose reduction
Substantially lower rtPA dose than standard therapy

4 Why ClotPro ECA and TPA tests matter

ECA test

- Most sensitive assay for detecting rtPA-related fibrinolytic activity
- Supports real-time rtPA dose titration
- Helps detect excessive or residual fibrinolysis

TPA test

- Assesses fibrinolytic responsiveness
- Helps exclude fibrinolysis resistance
- Adds confidence when interpreting treatment response

Bottom line: ClotPro-guided, individualised low-dose thrombolysis appears feasible and may offer a safer, more personalised option for high- and intermediate-high-risk PE in the ICU.

Feasibility study: promising findings, but larger multicentre trials are needed.

Haemoview Diagnostics
Redefining coagulation

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