

*62 year old Hugh Jembolus presented with pleuritic chest pain and 2 days calf swelling. He deteriorates quickly and becomes unstable before going into PEA cardiac arrest.*

November 2020

## Pulmonary embolism

A blood clot (embolus) in the pulmonary vasculature.

Can vary from minor symptoms to sub-massive and massive PE leading to cardiac arrest.

### Symptoms/signs

- Chest pain (pleuritic), shortness of breath, haemoptysis, clammy/sweaty.
- Tachycardia, hypoxia, tachypnoea, hypotension (later).
- Syncope

## Massive PE

Recognition

- **Haemodynamically UNSTABLE patient** - sustained SBP <90mmHg
- May be ECG changes (new RBBB, RAD, 'S<sub>1</sub>Q<sub>3</sub>T<sub>3</sub>')/ bedside ECHO (dilated RV)
- Peri-arrest/arrest
- IDEALLY CONFIRM WITH SCAN**
- CTPA

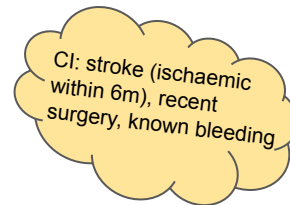
## Treatment of massive PE

Thrombolysis (usually 2 consultant decision) - **ALTEPLASE (tPA)**

**Cardiac arrest** = 50mg IV bolus

**Peri-arrest** = 10mg IV bolus

Followed by 90mg infusion over 2hr.



## Covid-19 arrest

- All arrests are **COVID ARRESTS**
- No CPR without PPE
- Allocate member of team to take patient to resus. Attach pads and assess rhythm, shock x3 if indicated, remainder of team to don PPE. Once rest of team in AGP PPE then take over.
- Early intubation if possible to reduce aerosol transmission.

## Non clinical Learning Points

**Early escalation** of unstable patient to senior clinician and nurse-in-charge

**Situational awareness** in PPE

**Closed loop communication**, important in leadership and followership  
*'Can you run this VBG and bring it back to me'*  
*"Here's the VBG"*

### Task allocation

Identify team member(s) accompanying arrested patient to resus, remainder to don PPE

## Resources

[EMbeds](#)

[BTS guidance](#)

[Covid ALS algorithm](#)