

# Ventricular Fibrillation Scenario

## Clinical Setting and History

Highly anxious patient has just arrived in the anaesthetic room prior to an ORIF of his fractured right ankle. He is 58yrs old with a 20 year history of hypertension, treated with ramipril and bendrofluazide. His pre-op ECG showed left sided strain with no acute changes and his biochemical profile suggested a degree of dehydration with an elevated urea but normal creatinine. As you prepare to establish IV access he collapses.

## Clinical course

- No breathing / circulation
- Initial rhythm is VF
- After 4<sup>th</sup> shock the rhythm should change to sinus rhythm
- Patient breathing and rousable

## Interventions

- Check patient (breathing / circulation)
- Start CPR (30:2)
- Establish BLS and ask ODP to get help and defibrillator
- Detail individuals to undertake CPR, airway management, IV access, drug preparation and other jobs when help arrives
- VF Check monitor/confirm rhythm (via hands free adhesive defibrillation pads)
- 1<sup>st</sup> shock (150J biphasic/360J monophasic)
- Establish definitive airway control/ventilation/oxygenation
- Establish IV access
- 2 min CPR
- VF Check monitor and confirm rhythm
- 2<sup>nd</sup> shock (150J biphasic/360J monophasic)
- 2 min CPR
- VF Check monitor and confirm rhythm
- 3<sup>rd</sup> shock (150J biphasic/360J monophasic)
- 2 min CPR
- Adrenaline 1 mg IV
- Amiodarone 300mg IV
- VF Check monitor and confirm rhythm
- 4<sup>th</sup> shock (150J biphasic/360J monophasic)

2 min CPR

**STach** Check monitor and confirm rhythm

Check patient (signs of life / pulse)

ABCDE assessment

Post arrest investigations

## Handover and Transfer

ICU/CCU

### During CPR

- Correct reversible causes – 4 Hs and 4 Ts (Hs = hypoxia, hypovolaemia, hypo/hyperkalaemia/metabolic, hypothermia)  
(Ts = tension pneumothorax, Tamponade - cardiac, toxins, thrombosis - coronary or pulmonary)
- Check electrode position and contact
- Attempt/verify: IV access, airway and oxygen
- Give uninterrupted compressions when airway secure
- Give adrenaline every 3 - 5 min
- Consider: amiodarone, atropine, magnesium

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### Equipment requirements

VF arrest: 'Skillsmaster', table, defib, green tubing, facemask, AMBU bag, BOC mask, intubation equipment, venflon, IV drugs (adrenaline/amiodarone/lignocaine).  
ALS algorithm on wall.