

Management of Maternal Cardiac Arrest

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Key Amendments

Date	Amendments	Approved by

Introduction

Cardiac arrest in late pregnancy or during delivery is a rare event. Unfortunately, when it occurs, maternal survival is very low because the aetiology of the arrest is not often reversed and the physiologic changes present in late pregnancy often hamper effective cardiopulmonary resuscitative efforts.

Some causes of cardiac arrest in pregnancy include:

1. Cardiac disease
2. Haemorrhage
3. Hypertensive disorders of pregnancy
4. Pulmonary embolism
5. Amniotic fluid embolism

It is clear that in any emergency clear, precise procedures maximise efficiency in reaction and improve outcome.

The purpose of this guideline is to identify an agreed procedure to follow in the event of cardio respiratory arrest in any pregnant woman across all sites forming Worcestershire Acute Hospitals NHS Trust.

Details of Guideline

Cardiopulmonary resuscitation will follow the national guidelines published by the Resuscitation Council UK, October 2010.

These guidelines can be accessed via the Resuscitation council UK website : www.resus.org.uk

Reproduction of the entire guideline is not practicable for this document however a summary of the procedure (the resuscitation algorithm) is attached to this document as an appendix.

Initial management of the collapsed patient - Appendix 1

Adult advanced life support – Appendix 2

Resuscitation in Pregnancy – Key Points

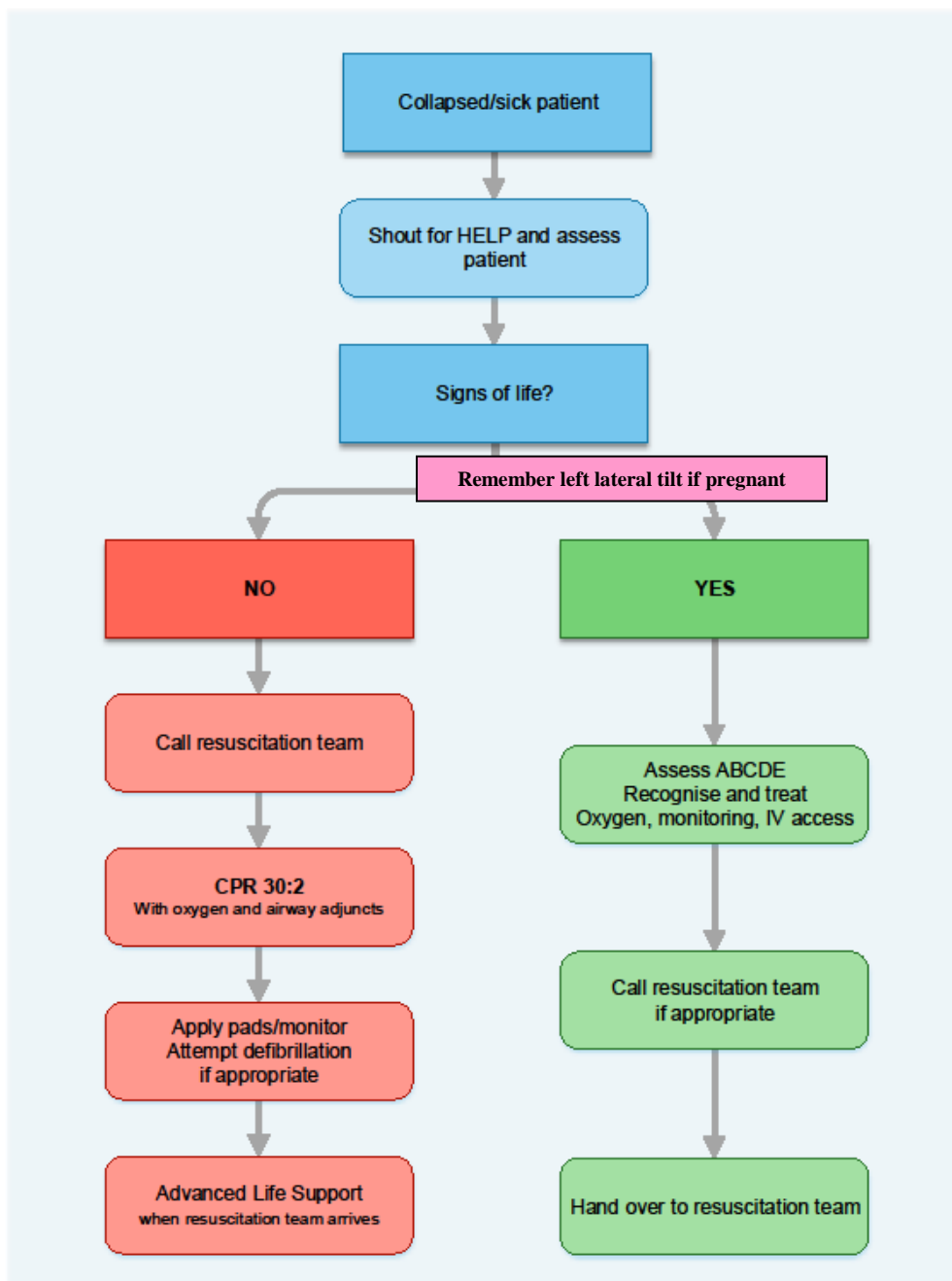
1. Two people to resuscitate – mum first!
2. Obstetric & paediatric help will be needed as well as the medical emergency team

Please note that the key documents are not designed to be printed, but to be used on-line. This is to ensure that the correct and most up-to-date version is being used. If, in exceptional circumstances, you need to print a copy, please note that the information will only be valid for 24 hours and should be read in conjunction with the key document supporting information and/or Key Document intranet page, which will provide approval and review information.

3. Normal principles of BLS & ALS apply, but :
- High risk of aspiration of gastric contents – cricoid pressure and expert intubation recommended
 - Higher ventilation pressures may be needed
 - Manually displace the uterus to the maternal left. This is the preferred technique to facilitate resuscitation by reducing supine hypotension and caval compression.
 - CPR possibly more difficult – aim for standard rates and depth
 - Arrhythmia management & defibrillation technique unchanged in pregnancy
 - Caesarean section after 5 minutes if no ROSC the woman comes first LSCS is performed to save the woman by enabling effective resuscitation

Appendix 1

Initial management of the collapsed patient



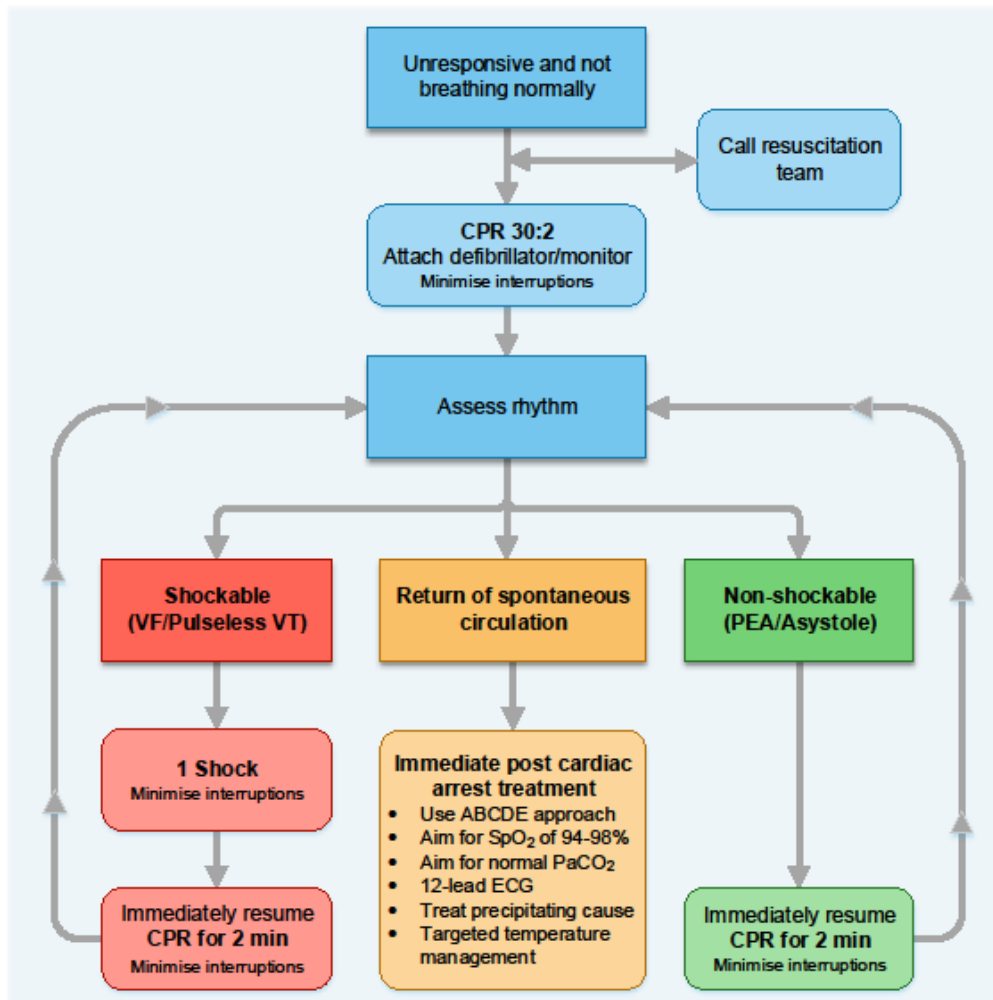
Appendix 2
Adult advanced life support



Resuscitation Council (UK)



Adult Advanced Life Support



- During CPR**
- Ensure high quality chest compressions
 - Minimise interruptions to compressions
 - Give oxygen
 - Use waveform capnography
 - Continuous compressions when advanced airway in place
 - Vascular access (intravenous or intraosseous)
 - Give adrenaline every 3-5 min
 - Give amiodarone after 3 shocks

- Treat Reversible Causes**
- Hypoxia
 - Hypovolaemia
 - Hypo-/hyperkalaemia/metabolic
 - Hypothermia
 - Thrombosis - coronary or pulmonary
 - Tension pneumothorax
 - Tamponade – cardiac
 - Toxins

- Consider**
- Ultrasound imaging
 - Mechanical chest compressions to facilitate transfer/treatment
 - Coronary angiography and percutaneous coronary intervention
 - Extracorporeal CPR

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