



CLINICAL PRACTICE GUIDELINE

# Acute deterioration (adult): Resuscitation and life support

This document should be read in conjunction with the [Disclaimer](#)

## Contents

<b>Key points .....</b>	<b>2</b>
Responding to clinical deterioration .....	2
Code blue calling criteria.....	2
<b>Assessment of the deteriorating patient.....</b>	<b>3</b>
<b>Basic life support – Adult.....</b>	<b>4</b>
Principles of basic life support.....	5
<b>Advanced life support .....</b>	<b>9</b>
Background information .....	9
Key points .....	9
Principles of advanced life support .....	9
Defibrillation .....	10
Reversible causes of cardiac arrest .....	11
Medication and fluids .....	12
Post resuscitation care.....	13
<b>Resuscitation of the pregnant woman .....</b>	<b>14</b>
Background.....	14
Perimortem caesarean section .....	14
Maternal positioning.....	15
Maternal oxygenation.....	15
Reversible causes of cardiac arrest .....	16
<b>References and resources .....</b>	<b>17</b>

## Aim

To provide guidance for staff at KEMH on basic life support, advanced life support and resuscitation in the pregnant woman.

## Key points

1. The management of adult basic and advanced life support in this document follows the guidelines of the Australian Resuscitation Council (ARC).
2. Refer to WNHS Policy: [Recognising and Responding to Acute Physiological \(Clinical\) Deterioration](#) for information on frequency and recording of vital signs and recognising deterioration.
3. For postoperative observations, see also: Obstetrics & Gynaecology: [Perioperative Preparation and Management](#)
4. A manual blood pressure reading should be obtained if an automated blood pressure reading is outside of the patient's normal range (high or low), or if the patient has an irregular heart rate.
  - Automated BP readings may only be considered once the BP is stable. For obstetric patients, see also Hypertension in Pregnancy guideline
  - A patient with a new irregular heart rate should also have a 12 lead ECG

## Responding to clinical deterioration

Refer to WNHS Policy: [Recognising and Responding to Acute Physiological \(Clinical\) Deterioration](#)

## Code blue calling criteria

- **Adult and neonate**- refer to WNHS Policy: [Recognising and Responding to Acute Physiological \(Clinical\) Deterioration](#)
- **Fetal**: Abnormalities of CTG trace warranting immediate birth such as a prolonged bradycardia, or sinusoidal trace. Cord prolapse, antepartum or intrapartum haemorrhage, you are worried. See also KEMH O&G Clinical Guideline: Fetal Surveillance: [Fetal Heart Rate Monitoring](#): 'Escalation'
- **Observations**: Observations that fall within the purple category of the relevant Observation and Response Chart (ORC)

# Assessment of the deteriorating patient

The airway, breathing, circulation, disability, exposure (ABCDE) approach is a systematic process that can be applied to the immediate assessment of a patient who **HAS** signs of life, but requires urgent medical team review, or Code Blue call. The ABCDE approach follows the following format:

## Airway

- Is the patient talking?
- Are there abnormal airway sounds e.g. wheeze or stridor
- Is the patient able to maintain their own airway, or are airway adjuncts/manoeuvres required
  - Consider suctioning, head tilt, chin lift, nasopharyngeal airway

## Breathing

- Assess respiratory rate, oxygen saturations, chest movement and work of breathing, auscultate lung fields.
  - Consider oxygen therapy, CXR, arterial blood gas, nebulizer.

## Circulation

- Assess heart rate and rhythm, blood pressure, patient colour, peripheral perfusion
  - Consider observing for blood or fluid losses, IV access, ECG, medication, capillary refill, urine output, JVP.

## Disability

- Assess level of consciousness using the AVPU (Awake, Voice, Pain, Unconscious) scale and determine which level the patient is responding to. Otherwise, if relevant perform a set of neurological observations, and check pupillary response.
- Check blood glucose level
- Review documentation such as medication chart, IV fluids, patient notes to determine any relevant clinical history.

## Exposure

- Assess skin, wounds, temperature, IV sites, any blood loss per vagina / per rectum and IDC to determine if infection is likely.
  - Consider prescribing antibiotics and checking a lactate level
  - Urinalysis may also be indicated as per the patient condition

## Basic life support – Adult

### Aim

- To increase the likelihood of return of spontaneous circulation and successful defibrillation if required.

### Background information

Adult resuscitation steps should be followed according to the [Basic Life Support \(BLS\) Algorithm](#) developed by the Australian Resuscitation Council.

Survival from cardiac arrest is optimised by a sequence of interventions referred to as the “Chain of survival”. The concept includes:

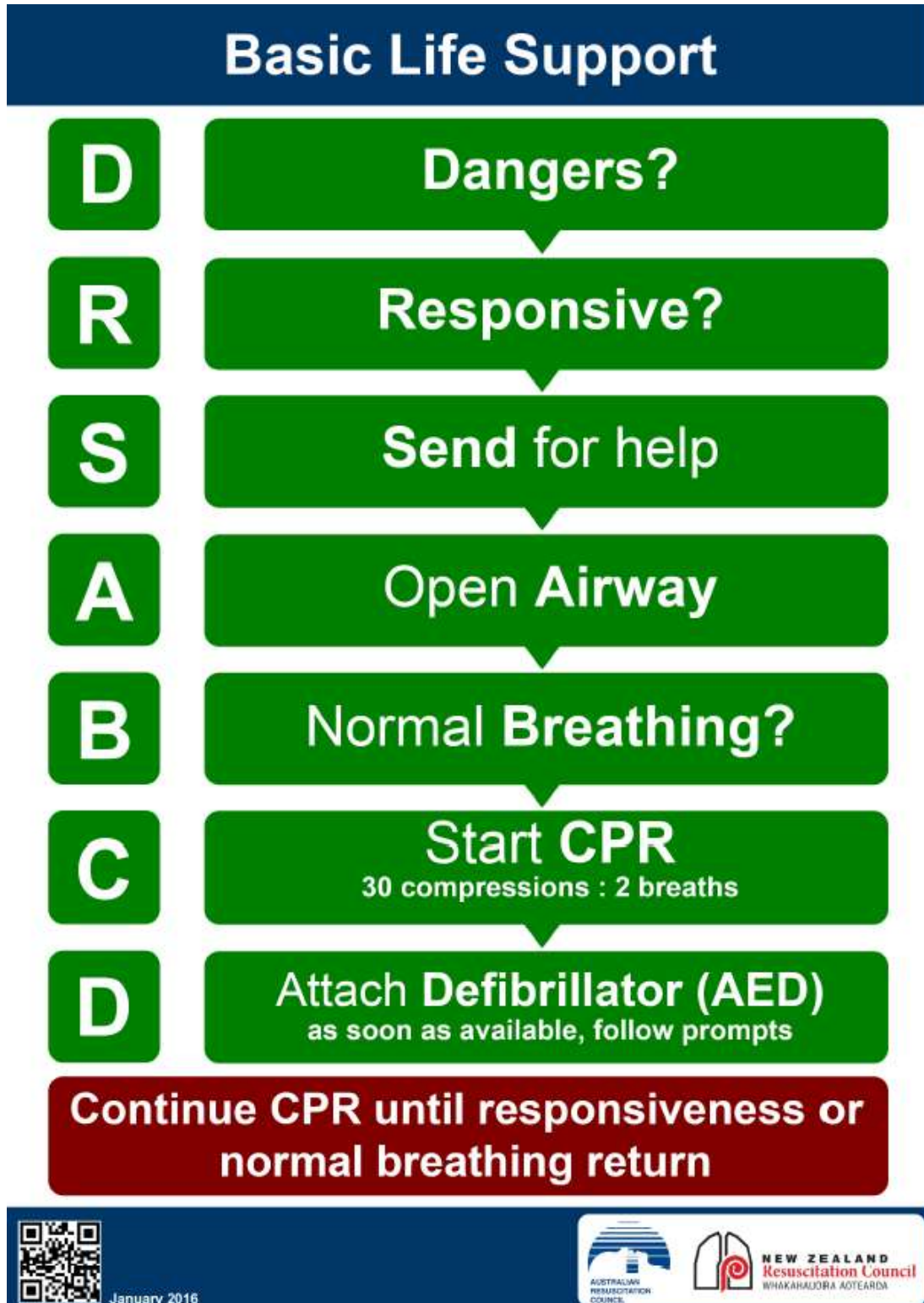
1. Early recognition and calling for help to prevent arrest – up to 80% of patients have been shown to show signs of physiological deterioration prior to cardiac arrest.
2. Early Cardiopulmonary resuscitation – buys time to slow the rate of deterioration of the brain and heart.
3. Early defibrillation - Studies have repeatedly shown the importance of immediate bystander CPR plus defibrillation within 3–5 minutes of collapse to improve survival from sudden VF cardiac arrest. (AHA)
4. Post resuscitation care – targets preserving function, particularly of the heart and brain, and restoring the patient’s quality of life.



**Note-** For COVID positive (or suspected) patients, see also [WNHS BLS First Responder Modifications for Patients Being Treated for Droplet Precautions Including COVID +ve \(or Suspected\) Patients](#) (available to WA Health employees through Healthpoint)

## Principles of basic life support

The basic life support algorithm (DR S ABCD) should be followed to preserve / restore life by establishing a clear airway, breathing and circulation in a collapsed patient.



**Acknowledgement:** Australian Resuscitation Council & New Zealand Resuscitation Council

## **Applying the DR S ABCD algorithm**

### **D – Assess for danger**

Assess the area for danger. Danger can include hazards such as electrical cables, furniture, equipment, water, body fluids, and sharps.

### **R – Check for response**

Check the patient for a response. Squeeze the patient's shoulders firmly and call their name to elicit a response. If the patient is unresponsive, press the emergency bell to summon help.

### **S – Send for help**

Send for help by pressing the emergency bell. Once help arrives, ask your colleague to call a Code Blue while you attend to the patient.

### **A – Airway**

Ensure that the patient is lying on their back. Take adequate precautions in pregnant patients to ensure that aorto-caval compression does not occur by manually displacing the uterus in a left lateral position if you have the personnel to do this. Assess the airway by opening the patient's mouth to check for obstruction. Suction the airway with a yankeur suction device if required being careful to suction only within the mouth (under direct vision). Perform a head tilt and chin lift to open the airway. If there is a suspected spinal injury, use a jaw thrust to open the airway instead. If an oropharyngeal airway is available consider inserting it at this point to maintain a patent airway. Ensure that the oropharyngeal airway is sized correctly by checking the length from the level of the incisor to the angle of the jaw.

### **B – Breathing**

Look, listen, and feel for normal breathing. This should take < 10 seconds. Ignore agonal gasps, this is not normal breathing. Do not check for a pulse, progress to the next step and commence chest compressions if the patient is not breathing normally and is unresponsive. Later in the resuscitation once there are more responders available, breathing should be provided using a bag and mask, with oxygen flow at 15L / minute. Breathing should be co-ordinated with CPR at a ratio of 30 compressions to 2 breaths. Compressions should be paused for breaths to allow for adequate air entry during BLS. Ideally, one person should hold the mask in place and obtain an adequate seal, while the other ventilates the patient. This would depend on the number of staff available to assist. Observe for rise and fall of the chest to ensure effective ventilations.

### **C- Circulation**

Commence CPR unless a "Not for CPR order" is in place. Perform external cardiac compressions at a rate of 100 – 120 compressions / minute. If you are a single rescuer, continue CPR until the emergency team arrives. Do not perform mouth to

mouth resuscitation or use a pocket mask in the hospital setting. Once help arrives, continue CPR at a ratio of 30 compressions to 2 breaths using a bag and mask. Hands should be positioned in the lower third of the sternum to provide CPR. Use the heel of the hand to compress the chest, elbows should be straight, and the CPR provider should be leaning over the patient. Compress the chest 5-6 cms or 1/3 of the A-P diameter. Ensure that adequate time is allowed for the chest to recoil in between compressions. Change providers every 2 minutes, or if fatigued to ensure effective CPR is provided. Ensure there are minimal interruptions to chest compressions. Reassess patient for signs of returned circulation in 2 minutely intervals.

**Pregnant women:**

- Ensure that aorto-caval compression is relieved in pregnant patients. This may be achieved by manually displacing the uterus into a left lateral position. See section Resuscitation of the Pregnant Woman: [Maternal Positioning](#)

**D – Defibrillation**

The WNHS uses automatic, semi-automatic and manual defibrillators. It is important to familiarise yourself with the type of defibrillator used in your clinical area. Basic life support involves the provision of defibrillation using an automatic external defibrillator (AED) or a semi-automatic external defibrillator (SAED) in automatic mode. Rhythm recognition, analysis and manual defibrillation fall within the advanced life support algorithm and are discussed there. All nurses, midwives and medical staff within the WNHS are able to defibrillate a patient using an AED, and for those trained adequately, a SAED. All nursing, midwifery and medical staff must demonstrate competency in basic life support annually. A record of competency is kept on Alesco or Lattice. Manual defibrillation is not within the scope of practice for nurses, midwives or medical staff working outside of the discipline of anaesthesia within WNHS, regardless of previous expertise or skills. Defibrillation provides the best possible chance of survival in patients with pulseless ventricular tachycardia and ventricular fibrillation; therefore defibrillation should occur without delay.

Attach defibrillator pads to patient's chest as soon as possible. Take care to avoid the nipple, pacemakers, medication patches, ECG cables, dressings, CVC's and to remove jewellery where possible. Dry the patient's chest if wet or very sweaty before applying pads. Excessive hair can be removed by applying one set of pads, and removing them quickly. Apply a clean set to the smooth skin. Ensure CPR continues while pads are being applied. "Roll" pads smoothly onto the skin, ensuring no air is trapped between the skin and the gel pad. See below diagrams for defibrillator pad placement. The cable for the gel pads can be plugged into any defibrillator machine at KEMH. There is no need to remove the pads if changing to a manual machine.

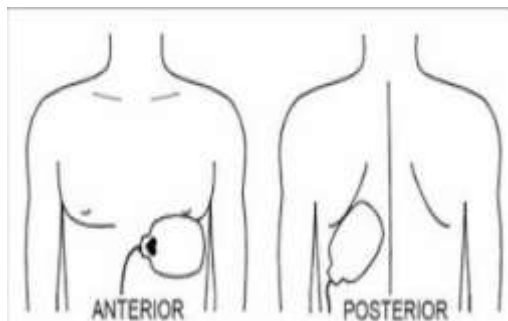
### Antero-lateral pad placement

Position anterior pad underneath the right clavicle, along the sternal border. Position apex/lateral pad at 4<sup>th</sup> intercostal space, midaxillary line.



### Anterior posterior pad placement

Position anterior pad as for apex pad in antero-lateral diagram. Position posterior pad underneath the scapula on the left side.



### Lateral lateral pad placement

Position the middle of the pad at the 4<sup>th</sup> intercostal space, midaxillary line



Switch defibrillator on. Follow machine prompts. Ensure safety of resuscitation team by instructing staff to “stand clear”, and checking for hazards by performing a “visual sweep” prior to delivering a shock. Oxygen should be kept at least 30 cm away from the patient during defibrillation. The patient should display a physical response such as a “jerking movement” during defibrillation which confirms a shock has been delivered. Once the shock has been delivered, immediately resume CPR as per ALS algorithm or until there are signs of life.



# Advanced life support

## Aim

- To guide adult resuscitation management in a consistent way by following the Australian Resuscitation Council Advanced Life Support Algorithm.

## Definition

Advanced life support is basic life support with the inclusion of manual defibrillation, advanced airway management, the administration of intravenous fluids and medications as well as a systematic approach to resolving reversible causes of cardiac arrest.

## Background information

Defibrillation remains the primary treatment for:

- Ventricular fibrillation and
- Pulseless ventricular tachycardia

CPR and supportive measures are the main treatment for asystole, and pulseless electrical activity.

## Key points

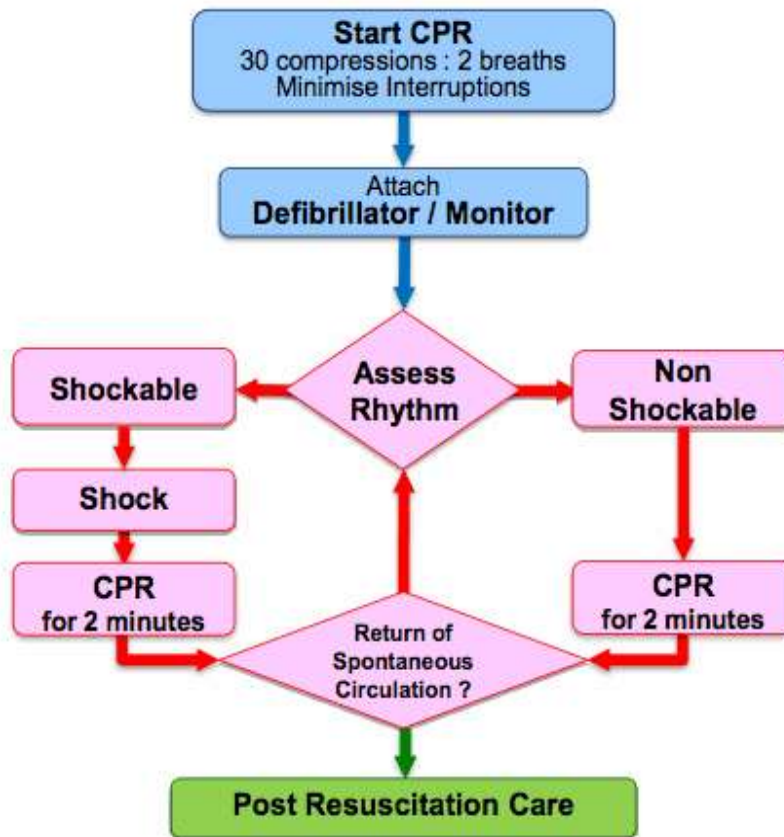
1. Single shocks should be provided to allow CPR to continue in between shocks. Effective CPR raises coronary perfusion pressure and increases the likelihood of successful defibrillation.
2. Chances of successful defibrillation diminish over time.
3. Default energy level for biphasic defibrillators in 200J.
4. Ensure reversible causes of cardiac arrest (4 Hs and 4Ts) are treated and addressed sufficiently during the resuscitation
5. Document resuscitation on MR 302, Medical Emergency Record.

## Principles of advanced life support

The advanced life support algorithm is a systematic process designed to guide clinicians in the provision of care to the unconscious patient. It focuses on CPR, defibrillation, airway management, correcting reversible causes of cardiac arrest as well as post-resuscitation care. The algorithm is provided below.



## Advanced Life Support for Adults



### During CPR

Airway adjuncts (LMA / ETT)  
Oxygen  
Waveform capnography  
IV / IO access  
Plan actions before interrupting compressions  
(e.g. charge manual defibrillator)  
Drugs  
Shockable  
\* Adrenaline 1 mg after 2<sup>nd</sup> shock  
(then every 2<sup>nd</sup> cycle)  
\* Amiodarone 300 mg after 3<sup>rd</sup> shock  
Non Shockable  
\* Adrenaline 1 mg immediately  
(then every 2<sup>nd</sup> cycle)

### Consider and Correct

Hypoxia  
Hypovolaemia  
Hyper / hypokalaemia / metabolic disorders  
Hypothermia / hyperthermia  
Tension pneumothorax  
Tamponade  
Toxins  
Thrombosis (pulmonary / coronary)

### Post Resuscitation Care

Re-evaluate ABCDE  
12 lead ECG  
Treat precipitating causes  
Re-evaluate oxygenation and ventilation  
Temperature control (cool)

December 2010

## Defibrillation

In this health service, only anaesthetists, and anaesthetic registrars who are ALS2 proficient are permitted to manually defibrillate patients. The rationale for this is that cardiac arrest occurs infrequently; therefore it is unlikely that defibrillation skills can be maintained outside the field of anaesthesia.

### Shockable rhythms – VF or pulseless VT

Defibrillation is the definitive treatment for VF and pulseless VT. If the patient is monitored in a fine ventricular fibrillation, then it may be advisable to continue CPR for another 2 minutes to improve coronary perfusion, increase the voltage of the rhythm to coarse VF and increase the likelihood of restoring sinus rhythm. Rhythm analysis should occur every 2 minutes throughout the resuscitation, prior to delivering the next shock if indicated. IV Adrenaline 1mg should be administered after the 2<sup>nd</sup> shock, and then every second cycle during the resuscitation. IV Amiodarone 300mg should be administered after the 3<sup>rd</sup> shock.

### Non-shockable rhythms – asystole or pulseless electrical activity

Non-shockable rhythms include asystole and pulseless electrical activity (PEA).

Defibrillation is not indicated for the management of these arrhythmias and CPR and other supportive measures should be continued. Rhythm should be checked every 2 minutes. IV Adrenaline 1mg should be given immediately when IV access is established Administer IV adrenaline 1mg every 2<sup>nd</sup> cycle subsequently.

## Reversible causes of cardiac arrest

Physiological causes known to exacerbate or precipitate cardiac arrest should be addressed throughout the resuscitation. These are known as the 4H's and 4T's.

4 H'S	4 T'S
Hypoxia	Thrombosis
Hypovolemia	Tamponade
Hypo / hyperkalaemia / hypermagnesemia	Tension pneumothorax
Hypo / hyperthermia	Toxins

### Hypoxia

Administer 15L/min of oxygen through the bag and mask. Consider airway adjuncts such as an LMA, or ETT. Once a definitive airway is inserted, ventilate patient at a rate of 10 breaths per minute. Consider performing an arterial blood gas to determine arterial PaO<sub>2</sub> and pH.

### Hypovolemia

Prime and run through a 1 L bag of normal saline or compound sodium lactate if hypovolemia is suspected. Ensure patient has 2 large bore cannulae sited above the level of the decubitus. If unable to obtain IV access, utilise the intraosseous route. An intraosseous gun is available on the theatre resuscitation trolley. Control the source of bleeding if haemorrhaging, and administer uterotonics for obstetric patients as required.

### Hypo / hyperkalaemia / hypermagnesemia

Potassium levels can be obtained through an ABG during resuscitation. If required send off a formal U&E to check electrolyte levels. Do not wait for results before treating suspected electrolyte disturbances. Both elevated potassium and magnesium levels may be reversed with intravenous calcium.

### Hypothermia

Hypothermia is classified as core temperature < 35 degrees. Warm blankets and warm air blankets can assist in elevating temperature. Ensure women birthing in

water have regular temperature checks.

## **Thrombosis**

Hospitalised patients are at a higher risk of developing VTE's. Check medication chart for thromboprophylaxis and assess clinical history to determine if VTE is a likely cause of cardiac arrest. Pregnant patients with intact membranes are at risk of an AFE when the membranes rupture.

## **Tamponade**

Tamponade is an unlikely cause of cardiac arrest outside the setting of trauma or cardiac surgery.

## **Tension pneumothorax**

Tension pneumothorax is also unlikely cause of cardiac arrest outside setting of trauma.

## **Toxins**

Toxins can include bites, stings, medications and illicit drugs. Clinical history may reveal a history of substance abuse. Administer reversal agents as appropriate. Do not administer naloxone to pregnant women unless absolutely necessary as this can be harmful to the fetus.

## **Medication and fluids**

The ARC has de-emphasised the role of drugs in a cardiac arrest. The medications that may be utilised are predominately adrenaline and amiodarone.

### **Adrenaline**

Adrenaline causes vasoconstriction which may increase the perfusion of blood to the myocardium and cerebrum. Evidence is insufficient to recommend an optimal dose of vasopressors in cardiac arrest. However, a dose of 1mg IV of 1:1000, or 10mls of 1:10 000 is not harmful, and can be given at 3-4 minutely intervals during a cardiac arrest. Adrenaline is given immediately in cases of asystole and PEA, or after the second shock in the setting of VT / VF. Flush well with 20mls of normal saline after administration. Lift arm up to the level of the heart to assist medication delivery.

### **Amiodarone**

Amiodarone is an anti-arrhythmic medication that alters the permeability of calcium and potassium leading to a prolonged membrane repolarisation phase, resulting in membrane stability. It should only be administered in the setting of shockable rhythms, and a dose of 300mg (neat) should be given IV.

## Post resuscitation care

After the return of spontaneous circulation, post-resuscitation care commences. It is important that care continues to be provided in a structured way so that the patient can continue to improve. The ABCDE approach as discussed in recognising and responding to clinical deterioration is a useful approach to apply to post resuscitation care. It is important to take this opportunity to evaluate what has been done, and what still needs to be done. Documentation should be reviewed and updated to reflect the care that has been provided and to formulate an ongoing care management plan.

Consider the following:

### Airway

- Repeat ABG to assess acid base balance and evaluate oxygenation. Provide supplemental oxygen if SaO<sub>2</sub> < 94%

### Breathing

- Assess breathing and determine if patient has sustained fractured ribs or severe bruising during CPR which may make breathing difficult, painful, and potentially cause a pneumothorax or flail chest.

### Circulation

- Continue to monitor blood pressure and pulse. Cardiac monitoring should be undertaken, along with a 12 lead ECG. Consider the need for an arterial line and central IV access. The patient should be transferred to a higher level of care for closer observation such as a HDU, ICU or CCU depending upon their clinical condition.

### Disability

- Monitor patient's neurological status and blood glucose level at regular intervals. Patients whose conscious state does not improve after resuscitation should be transferred to a tertiary adult hospital where they can undergo percutaneous angiography if required and then be actively cooled for neuroprotection.

### Exposure

- Restore the patient's dignity and ensure they are adequately clothed. Provide reassurance to your patient and be considerate of their emotional needs. Liaise with the family as required and answer any questions they may have.

### Other

- A formal debriefing should be provided for staff involved in resuscitation. It is useful for the resuscitation team to meet, and discuss the events that occurred to resolve any unanswered questions that they may have.
- In the event of an unsuccessful resuscitation where the patient has died, refer to the coroner as appropriate.

# Resuscitation of the pregnant woman

## Background

The physiological changes of pregnancy can pose many challenges for clinicians who are resuscitating a pregnant woman. Maternal collapse requires the resuscitation of the mother first and foremost, but also necessitates consideration of the fetus, who may or may not be able to survive if delivered quickly by perimortem caesarean section.

The rise in maternal plasma volume and red blood cells increases total blood volume by 30-50% in pregnancy. Blood flow to the gravid uterus and placenta increase by 500mL / minute when compared to the non-pregnant uterus. For this reason, it is critical to remove the placental circulation during maternal collapse, so that cardiac output in the mother can be restored. This provides the mother with the best opportunity for survival.

## Perimortem caesarean section

A perimortem caesarean section involves the urgent delivery of the fetus by laparotomy or caesarean section, at the site of maternal collapse, without anaesthesia, while the mother is undergoing CPR. It is recommended for women who look visibly pregnant, which as a general rule is women of 20 weeks gestation or more. The predominant aim of a perimortem caesarean section is to save the mother's life. Extraction of the fetus and placental circulation will ensure that the woman has an adequate circulating blood volume, will help to relieve aorto-caval compression and improve respiratory mechanics. CPR must continue throughout the procedure, without interruption.

Preparation for a perimortem caesarean section should be undertaken 3 minutes into the resuscitation, with knife to skin at 4 minutes, and delivery of the fetus by 5 minutes. It is important to call a Code Blue Medical and also a Code Blue Paediatric when a pregnant woman collapses. The procedure will be bloodless while maternal cardiac output is low. Once spontaneous circulation is restored, she will start to bleed.

The equipment that you will require is located in the bottom drawer of your resuscitation trolley – and this consists of a pre-packed perimortem caesarean kit. Try to keep the equipment as sterile as possible. There is no need to check fetal heart rate before or during the procedure. Neither maternal nor fetal management will change as a consequence of fetal heart rate.

## Maternal positioning

Visibly pregnant women should be positioned supine for CPR while someone provides manual left uterine displacement. This can be performed by using both hands to lift the uterus to the mother's left and upwards towards the ceiling. If there are not enough personnel available to do this, then a 15 degree left, lateral tilt is sufficient.



Figure 2. . Left uterine displacement with 2-handed technique.



A left lateral tilt of 15 degrees can be achieved by placing a wedge under the woman's right hip and buttock. An excessive tilt can cause aorto-caval compression, so this must be avoided in pregnant patients. If the patient is on a soft surface, place a hard board behind their back to facilitate effective compressions. If the patient is on an air mattress, ensure the CPR tab is pulled to deflate it during CPR.

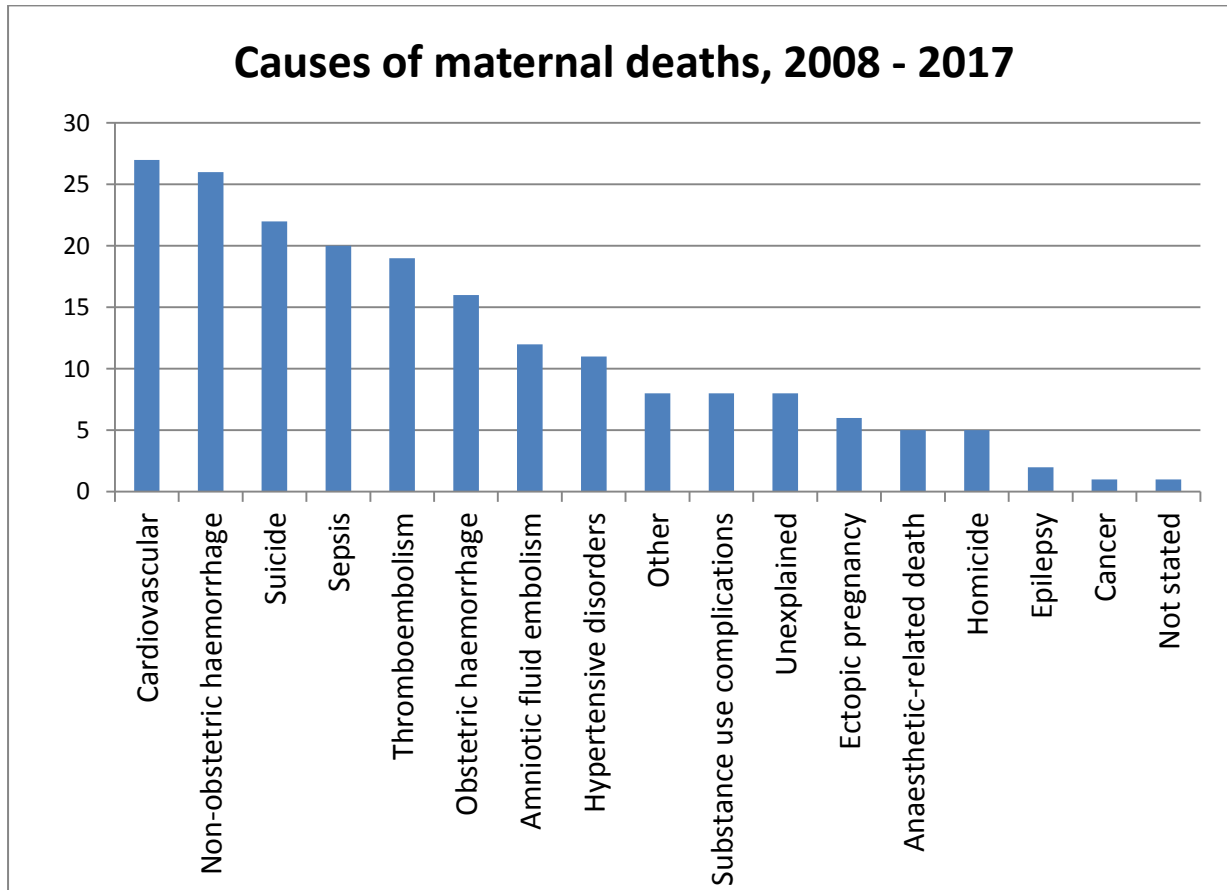
## Maternal oxygenation

Pregnant women will rapidly desaturate in a cardiac arrest, therefore it is essential that airway and breathing are restored quickly. Ensure 100% oxygen is administered at 15L/min using a bag and mask. Intubation of the pregnant patient is a difficult skill to master. Only a senior anaesthetist should attempt intubation during a cardiac arrest to avoid prolonged periods of apnoea. If intubation is not achieved quickly, abandon the procedure and insert a laryngeal mask airway or revert back to bag and mask ventilation.

## Reversible causes of cardiac arrest

Identifying and treating the 4H's and 4T's in pregnancy are the same as for the general adult population.

A table is shown below from the maternal deaths in Australia report. There were 197 maternal deaths from 2008 – 2017.



**Acknowledgment:** Based on Australian Institute of Health and Welfare (AIHW) material. Maternal Deaths in Australia (Nov 2019). AIHW.

According to the AIHW, between 2008 and 2017 the most frequent causes of maternal death (direct, indirect and not further classified) were:

- Cardiovascular disease, non-obstetric haemorrhage, suicide and sepsis

The most frequent **direct** causes of maternal death included:

- Thromboembolism, obstetric haemorrhage, amniotic fluid embolism and hypertensive disorders.



## References and resources

### Bibliography

- Adamson, D., Dhanjal, M., Nelson-Piercey, C., and Collis, R. (2007). Cardiac disease in pregnancy. In Greer, I., Nelson-Piercey, C., and Walters, B. Maternal medicine: Medical problems in pregnancy. Edinburgh: Elsevier.
- American Heart Association (2015). Cardiac arrest in pregnancy. *Circulation*; 132.
- Australian Institute of Health and Welfare [AIHW]. (2019). Maternal deaths in Australia [Web Report]. Available from <https://www.aihw.gov.au/reports/mothers-babies/maternal-deaths-in-australia/contents/maternal-deaths-in-australia>
- Australian Resuscitation Council (ANZRC). [The ARC guidelines](#) [website]. Accessed 13/01/2020.
- Department of Health Western Australia. (2019). [Recognising and Responding to Acute Deterioration Policy](#) [website].
- Nolan J, Soar J, Eikeland H. (2006). The chain of survival. *Resuscitation*. 71:270-1.

## Related legislation and policies

### Legislation

- [Guardianship and Administration Act 1990](#);
- [Civil Liability Act 2002](#)

### Department of Health WA policies

- [Cardiotocography Monitoring Policy - MP - 0076/18](#) (2018)
- [Recognising and Responding to Acute Deterioration Policy](#) (2019)
- [Recognising and Responding to Acute Deterioration Guideline](#) (2017)
- [WA Health Consent to Treatment Policy 2016](#)
- Policy Framework: [Clinical Governance, Safety and Quality](#)

**North Metropolitan Health Service (NMHS) policy:** [Recognising and Responding to Acute Deterioration](#)

## Related WNHS policies, procedures and guidelines

### WNHS Policies:

- [Clinical Handover at the Bedside](#)
- [Recognising and Responding to Acute Physiological \(Clinical\) Deterioration](#)

### KEMH Clinical Guidelines:

- Anaesthetics: [Adult Resuscitation Drug Protocols](#)
- Neonatology:
  - [Resuscitation: Neonatal](#)
  - [Resuscitation: Algorithm for the Newborn](#)



- Obstetrics & Gynaecology:
  - [Clinical Handover](#)
  - Hypertension in Pregnancy
  - [Resuscitation Trolley Checking \(Adult & Neonatal\)](#)
- Transfusion Medicine/ Haematology: [Critical Bleeding Protocol](#)

**COVID-19 procedure:** [WNHS BLS First Responder Modifications for Patients Being Treated for Droplet Precautions Including COVID +ve \(or Suspected\) Patients](#)

## Useful resources

[Australian Resuscitation Council \(ARC\) Guidelines](#) and [Flowcharts](#) (external websites) including (see website for full list):

- ANZCOR Guideline 4 - Airway (2016)
- ANZCOR Guideline 5 - Breathing (2016)
- ANZCOR Guideline 6 - Compressions (2016)
- ANZCOR Guideline 7 - External Automated Defibrillation in Basic Life Support (2016)
- ANZCOR Guideline 8 - Cardiopulmonary Resuscitation (2016)
- Guideline 10.5 - Legal and Ethical Issues related to Resuscitation (2015)
- Section 11: Adult Advanced Life Support:
  - Guideline 11.10 - Resuscitation in Special Circumstances (2011)

Keywords:	clinical deterioration, acute deterioration, vital signs, assessment, code blue, basic life support, advanced life support, defibrillation, resuscitation, pregnant, maternal, basic life support, perimortem, caesarean section, BLS, ALS, adult resuscitation, DRS ABCD		
Document owner:	Obstetrics & Gynaecology Directorate		
Author / Reviewer:	Consultant Anaesthetics		
Date first issued:	September 2001		
Reviewed dates (since May 2016):	; May 2016 (amended Jan 2018 - RCA); March 2020 (amended July 2020 - link added to new COVID BLS resource)	Next review date:	Mar 2023
Supersedes:	This August 2020 amended version supersedes the version dated March 2020		
Endorsed by:	Obstetrics & Gynaecology Directorate Management Committee [OOS approved with Medical and Midwifery Co directors]	Date:	25/08/2020
NSQHS Standards (v2) applicable:	1  Governance; 8  Recognising & Responding to Acute Deterioration		

**Printed or personally saved electronic copies of this document are considered uncontrolled.  
Access the current version from the WNHS website.**