Basic Life Support
Introduction

Why do this course?
Because it will help you save lives! *It will help you:*
• Assess a collapsed victim;
• See how to perform CPR (chest compression and rescue breathing);
• See how to place an unconscious (but breathing) victim in the ‘recovery position’;
• Learn about the ‘choking algorithm’.

Should you save all victims?

*I may sound callous at first, but some patients should NOT be resuscitated.*

Like other hospitals, the Trust has a ‘Do Not Attempt Resuscitation’ (DNAR) policy and it is the consultants’ responsibility to enact this. Have at look at the form we use (on the right): you can see it full size on the L&D SharePoint site.

DNAR is very appropriate for some patients, and in their best interests when it has been determined as the necessary course of action. It doesn’t alter their routine care, and it also supports:
• The Liverpool Care Pathway;
• The NW End of Life Care Model

*PS: For more information on End of Life Care please contact End of Life Co-ordinator, bleep 327*

Fast action saves lives...

Ischaemic heart disease is the leading cause of death world-wide. In Europe, cardiovascular disease accounts for roughly 40% of all deaths of people under 75 years old. Your FAST action could help reduce some of these deaths because:

• Each minute that CPR is delayed means the chances of a successful outcome decreases by 10-12%.

• Survival to hospital discharge is presently just over 10% for all rhythms & just over 21% for all VF arrests. [Source: RC (UK) 6th Edition ALS Manual 2011]

• Bystander or in-hospital CPR is a vital intervention before the arrival of Advanced Life Support (ALS) or emergency services.

• Early resuscitation and prompt defibrillation within 1-2 minutes can result in a better than 60% chance of survival.
Steps to Basic Life Support

Step 1: **Shout for help**
Step 2: **Eliminate Dangers**
Step 3: **Evaluate Response**
  - *Shout for help again, if necessary*
Step 4: **Airway**
Step 5: **Breathing**
Step 6: **Circulation**

We use a mnemonic to summarise the steps you should take after the initial shout for help: ‘**DRABC**’ stands for:

- **D** (Eliminate DANGERS)
- **R** (Evaluate RESPONSE)
- **A** (AIRWAY)
- **B** (BREATHING)
- **C** (CIRCULATION)

Step 1: **SHOUT FOR HELP**
Shake the casualty’s shoulders and shout “Are you alright?” in both ears.

Step 2: **ELIMINATE DANGERS**
*Help the casualty – Don’t become one!*

- Approach carefully & safely
- Think about manual handling
- Don’t move the patient unless you really have to
- Beware any environmental dangers (road traffic, nearby equipment, etc)
- Avoid infection by using the appropriate protection (gloves, apron, face visor, etc)
- Ensure the environment is a safe one for treating the patient

Step 3: **EVALUATE RESPONSIVENESS**
If necessary, ask “Are you alright?”, again in both ears.

*Note: In cases of trauma the neck and spine should be immobilised by placing one hand firmly on the forehead.*

Is the patient responsive?

**Yes?**
Great! Now you can:
- Check for injuries
- Assess Early Warning Score (EWS)
- Calculate & call for help as necessary, following the graded response system
- Seek the appropriate level of help needed
- Reassess regularly

**No?**
Don’t panic! Continue on to check A.B.C - Airway / Breathing / Circulation
Step 4: **AIRWAY**

Get the patient in position by using a head tilt & chin lift:
Is there any obstruction in the airway? Remove only visible objects using any relevant equipment available - for example, suction, or Magill’s forceps (above)

Step 5: **BREATHING**

- Look, listen and feel for normal breathing for no longer than 10 seconds.
- Be aware of AGONAL breathing.
- Consider a simultaneous circulation check (if you are confident checking for a carotid pulse).

AGONAL BREATHING occurs shortly after the heart stops in up to 40% of cardiac arrests. It can be described as barely there, heavy, noisy, or gasping, and may be infrequent. *Recognise this as a sign of cardiac arrest: DO NOT DELAY CPR!*

Step 6: **CIRCULATION**

If you are confident about making carotid pulse you could be doing them while checking for breathing (for up to 10 seconds). If you are not confident about taking a pulse, look for other signs of life, such as movement, colour, coughing, and/or temperature. Check this (for up to 10 seconds) at the same time you check for breathing.

**CPR (Cardio-Pulmonary Resuscitation)**

Is the patient breathing? Or are there other signs of life?

**Yes?**
- If it’s safe to do so, put the patient in the recovery position.
- Call for help on 2222 (at the BTH), (9)999 (community) or 112 elsewhere.
- Reassess A.B.C. at one-minute intervals.
- Consider assessing the patient’s condition through using EWS or POTTS.
- Check for signs of agonal breathing.

Is the patient breathing? Or are there other signs of life?

**No?**
- If local help is present, send them for advanced help and emergency equipment.
- In our acute Trust call the Adult Cardiac Arrest Team on 2222 and state ‘Adult Cardiac Arrest’ and your location.
- In a peripheral hospital or in the NHS community setting, call (9)999 or 112 for an ambulance and say “Adult Cardiac Arrest and we are doing CPR requesting paramedic crew and defibrillator”.
- If no help is present leave the patient and telephone for help.
- Return and begin CPR.

*Remember to stay calm!*
Chest Compressions

• Place the heel of one hand in the centre of the chest
• Place other hand on top
• Interlock fingers
• Compress the chest:
  • 30 compressions
  • Rate: 100-120 bpm
  • Depth: 5-6 cm
  • Equal compression to relaxation ratio
• When possible change CPR operator every 2 minutes

Remember: Good, effective, chest compressions from the start can save a life!

• Mouth-to-mouth can be considered if a pocket mask is readily available.
• If no mask is available, and you are not prepared to perform mouth-to-mouth, perform continuous chest compressions until equipment arrives.
• Each ventilation breath should be given over 1 second.

The formula to follow is:

30 compressions
2 breaths
30 compressions
2 breaths
30 compressions
2 breaths

& keep going! Continue BLS until:

• The advanced emergency team arrives and takes over;
• The patient shows signs of life; OR
• The rescuer becomes too physically exhausted to carry on.
The Recovery Position

If the patient is unconscious, breathing normally, has an adequate circulation, and there is no suspicion of cervical spine injury, then consider using the recovery position to ensure fluid can drain freely out of the mouth:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Place the patient’s arm nearest to you upwards as if they are asking a question:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Stage 1 Image" /></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Stage 2</th>
<th>Place the hand furthest away from you against the patient’s cheek:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.png" alt="Stage 2 Image" /></td>
<td></td>
</tr>
<tr>
<td>Note: If your patient is wearing rings with stones in them, spin the rings around so the stone is not against the patient’s face.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Stage 3</th>
<th>Bend the knee furthest away from you:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Stage 3 Image" /></td>
<td></td>
</tr>
<tr>
<td>Note: Check that your patient has no items in pockets that could cause injury when rolled onto them (such as phones, or keys).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 4</th>
<th>Roll the patient towards you and onto their side:</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4.png" alt="Stage 4 Image" /></td>
<td></td>
</tr>
<tr>
<td>Note: pregnant ladies should be placed on their LEFT side.</td>
<td></td>
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</tbody>
</table>
General signs of choking
- Attack occurs while eating
- Victim may clutch his neck

Signs of mild airway obstruction
Response to question ‘Are you choking?’
- Victim speaks and answers yes

Other signs
- Victim is able to speak, cough, and breathe

Signs of severe airway obstruction
Response to question ‘Are you choking?’
- Victim unable to speak
- Victim may respond by nodding

Other signs
- Victim unable to breathe
- Breathing sounds wheezy
- Attempts at coughing are silent
- Victim may be unconscious

Choking

5 Back Blows
(check the patient after every back blow)
followed by
5 Abdominal Thrusts
(check the patient after every abdominal thrust)
If unconscious
Open airway, attempt to any remove visible object
And start CPR
### BLS induction assessment

Please select only one answer to each question:

1. **What depth should chest compressions be made to?**
   - □ 3-4cm  □ 4-5cm  □ 5-6cm

2. **How fast should chest compressions be?**
   - □ 80-100 bpm  □ 100 bpm  □ 100-120 bpm

3. **In a choking patient, how many backslaps would you perform initially?**
   - □ 3  □ 5  □ 7

4. **When would you NOT start CPR on a patient?**
   - □ When they have been dead for a while  □ When a patient’s relative asks you not to  □ When an active DNAR is in place

5. **Which number would you dial for a cardiac arrest at Blackpool Victoria Hospital?**
   - □ 2222  □ 4444  □ (9)999

6. **Is mouth-to-mouth ventilation essential if you have no pocket-mask?**
   - □ Yes  □ No

7. **If your patient has a cardiac arrest on the floor, where would you deliver CPR?**
   - □ Bed  □ Chair  □ Floor

8. **If your patient had a cardiac arrest in a chair, where would you deliver CPR?**
   - □ Bed  □ Chair  □ Floor

9. **In adult CPR, what do we begin with?**
   - □ Chest compressions  □ Rescue breaths

10. **When placing a pregnant patient in the recovery position, which side do you roll the patient to?**
    - □ Left side  □ Right side  □ Either

11. **What is the correct hand position for external compressions?**
    - □ Lower chest  □ Upper chest  □ Centre of chest

12. **What does EWS stand for?**
    - □ Easy Weighing System  □ Early Warning Score  □ Early Waste Signal
13. What protective equipment is available to you when addressing an infectious patient?

- Gloves
- Apron
- Visor
- All of these

14. What does DNAR stand for?

- Do Not Attempt Rescue
- Doesn’t Need Attempted Resuscitation
- Do Not Attempt Resuscitation

15. If faced with a choking patient, how many abdominal thrusts would you deliver?

- 3
- 5
- 7

16. What system do we follow for BLS?

- Danger, Response, Airway, Breathing, Circulation
- Shout for help, Danger, Response, Airway, Breathing, Circulation
- Response, Airway, Breathing, Circulation, Shout for help

17. What equipment can we use to remove a foreign body from a patient’s airway?

- Magill’s forceps
- Suction
- Both would be useful

18. If you are struggling to remove a foreign body from a patient’s airway, what should you do?

- Seek help
- Keep trying to remove it
- Pretend you didn’t see it and ignore it

19. If you’re not confident about doing carotid pulse checks, what should you do?

- Nothing
- Check anyway
- Look for signs of life instead

20. Is agonal breathing a sign of cardiac arrest?

- Yes
- No

21. If agonal breathing were present, would you delay CPR?

- Yes
- No

22. How long would you check for breathing & circulation?

- Up to: 5 secs
- 8 secs
- 10 secs

23. If no pocket mask is available, and you’re not prepared to deliver mouth-to-mouth, what should you do?

- Nothing
- Continuous chest compressions
- Stop after 30 compressions
24. How long should a ventilation breath last?  
- [ ] 1 second  
- [ ] 2 seconds  
- [ ] 3 seconds

25. When would you NOT stop CPR?  
- [ ] When your patient shows sign of life  
- [ ] When the emergency team arrives and takes over  
- [ ] When you’re too physically exhausted to continue  
- [ ] When the patient’s relative asks you

26. What ratio CPR should you use?  
- [ ] 30:2  
- [ ] 15:2  
- [ ] 15:1

27. What should be classed as ‘dangerous’ on your approach to the patient?  
- [ ] Fluid  
- [ ] Equipment  
- [ ] Sharps  
- [ ] Traffic  
- [ ] All of these

28. When assessing the responsiveness of your patient, do you:  
- [ ] Press the shoulders & shout in both ears?  
- [ ] Shout at the patient?  
- [ ] Shake the patient?
In acknowledgement to all staff who contributed to the production of this work book

Blackpool Teaching Hospitals NHS Foundation Trust