Courses in Training and Development

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RE: Paediatric Immediate Life Support (PILS) Pre-Course Reading and MCQ for candidates

Dear candidate,

Thank you for joining us for our upcoming Paediatric Immediate Life Support (PILS) Training.

Our ultimate aim is to make your training as engaging and enjoyable as possible. We also recognise that the PILS course can be challenging at times, and it is possible to fail the course and have to repeat the day in full. To help mitigate this, the course includes a manual and pre-course learning to help you to prepare for the face-to-face practical day.

Please find the following pre-course documents attached:

1). A pre-course Multiple Choice Quiz (MCQ) for PILS – this will help you to prepare by testing you on your knowledge. Please print and complete this MCQ, and bring it along to your course. All of the answers to these questions can be found in your PILS manual.

If you have not received your manual – please consult with the person that arranges your training, as wherever possible we send the manuals to your L&D administrator / site lead at least 2 weeks before the date of training so one should be available to request/collect. Recertification candidates should use the manual they received as part of your full-day PILS course.

2). A copy of the RCUK's assessment forms – There is no formal assessment on the PILS course. However, there are three continuous assessment elements:

1. BLS
2. Airway management
3. ABCDE approach to the assessment of the sick child

You must demonstrate satisfactory performance in each of the specified criteria to an instructor on at least one occasion to successfully complete the relevant continuous assessment.

If you are unsuccessful on the day, your instructor will work through the appropriate assessment form(s) and advise on any remedial training and/or next steps that should be taken to help you pass the course on your next attempt.

3). A copy of the RCUK's Candidate Responsibilities Letter – It is important that you read this letter in full and adhere to the code of conduct at all times.

If you have any questions on the above please do not hesitate to contact us.

Guidance for Candidates

Pre-course MCQ 1

1. Use of the MCQ is optional for course centres
2. The MCQ can be sent to candidates with course materials before the course
3. Candidates should complete the MCQ before attending the course. The aim is to encourage candidates to read the course materials before they attend and also to learn kay information
4. The MCQ can be self-marked by candidates when they attend the course or can be marked by the course centre. The answers and explanations can be posted on a wall. A marking grid is also available
5. The MCQ market does not count toward the final course result as it is not part of the course assessment.

Instructions

A. Please complete the attached MCQ paper and bring it with you to your PILS course.

B. The MCQ will be marked on the course. Your MCQ score does not count towards your final course assessment.

Instructions for completion of the paper

Use the answer sheet provided

Mark each question as either 'True' or 'False' as per the example below:

1. During cardiopulmonary resuscitation in children:

a. a ratio of 2 ventilations to 15 compressions is recommended
b. chest compressions should be to a depth of 1–2 cm
c. always use one hand to deliver chest compressions
d. deliver chest compressions at a rate of 100–120 per minute

The answer sheet should be marked as follows:

Question	True	False
1a	**x**	
1b		**x**
1c		**x**
1d	**x**	

Pre-course multiple choice question (MCQ) paper

1. **During cardiopulmonary resuscitation:**

   a. Two initial rescue breaths should be given
   b. If the child is gasping ineffectively (agonal breathing), rescue breaths must be given immediately
   c. At least 8 s should be taken to assess for the presence of 'signs of life'
   d. Chest compressions should be delivered over the lower half of the sternum

2. **Paediatric cardiac arrest:**

   a. Is usually due to a congenital cardiac defect
   b. Usually has a presenting cardiac rhythm of profound bradycardia deteriorating to asystole or pulseless electrical activity (PEA)
   c. Morbidity and mortality from cardiac arrest remains high due to hypoxic tissue damage, which results in severe organ damage
   d. Is usually a sudden unexpected event

3. **In infants:**

   a. The main muscle of respiration is the diaphragm
   b. The tongue is relatively small in relation to their mouth
   c. Higher respiratory rates are due to their relatively higher metabolic rate, oxygen consumption and carbon dioxide production
   d. An acceptable respiratory rate would be 30–40 breaths per minute

4. **Circulating blood volume:**

   a. Is 80 mL kg^{-1} in the newborn
   b. Is 60–70 mL kg^{-1} in adults
   c. Has to be reduced by approximately 40% for hypotension to occur
   d. Should always be replaced with fluid boluses of 15–20 mL kg^{-1}

5. **In Basic Life Support (BLS):**

   a. A child is defined as 1–6 years of age
   b. A ratio of 30 compressions to 2 breaths should always be used
   c. A single rescuer should summon more help before starting BLS if a child who is known to have heart disease suffers a sudden, witnessed collapse
   d. The recommended initial sequence of events is – ***Shout*** *for help,* ***Safety*** *checks,* ***Stimulate*** *the child*

6. In airway management:

a. Nasopharyngeal airways should not be used in conscious children
b. An unconscious infant should have their head placed in a 'sniffing' position to maximise the patency of their airway
c. Oropharyngeal airways are safe to use in conscious children
d. The way to correctly size an oropharyngeal airway is to lay it against the child's face; its length should be equal to the distance between the level of the incisors to the angle of their jaw

7. In cardiac rhythm recognition and management:

a. The ECG should be monitored in all seriously ill children
b. A normal ECG complex consists of a P wave, a QRS complex and a T wave
c. The ECG trace represents the effectiveness of myocardial contraction and tissue perfusion
d. Atropine is indicated when increased vagal tone is thought to be the cause of bradycardia (e.g. tracheal intubation)

8. In cardiorespiratory arrest:

a. The dose of adrenaline is 10 mcg kg^{-1} given intravascularly
b. Adrenaline should be given before defibrillation in ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT)
c. Adrenaline should be given as soon as vascular access is achieved and chest compressions are established in asystole or pulseless electrical activity (PEA)
d. The dose of adrenaline used produces vasodilatation

9. In cardiorespiratory arrest:

a. Chest compressions should be delivered at a rate of 100–120 per minute
b. Hypoglycaemia should be treated with 5–10 mL kg^{-1} of 10% glucose
c. Children should always have a tracheal tube placed
d. Chest compressions should be performed continuously once the child's airway is secured with a tracheal tube

10. In a 7-year-old child:

a. The dose of adrenaline for an anaphylactic reaction would be 300 mcg IM
b. The estimated body weight would be 18 kg
c. The energy level used for manual defibrillation would be 4 J kg^{-1} body weight
d. The initial energy level recommended for cardioversion would be 1 J kg^{-1} body weight

Pre-Course MCQ Candidate Answer Sheet

Candidate name:	

Instructions:

Mark each question either True or False with an 'X.'
(See question paper for example)

Question	True	False		Question	True	False
1a				6a		
1b				6b		
1c				6c		
1d				6d		
2a				7a		
2b				7b		
2c				7c		
2d				7d		
3a				8a		
3b				8b		
3c				8c		
3d				8d		
4a				9a		
4b				9b		
4c				9c		
4d				9d		
5a				10a		
5b				10b		
5c				10c		
5d				10d		

Continuous assessment form

The ABCDE approach to assessment of the sick child

Basic life support with bag/mask ventilation

Structure Skill description	**Process** Specific action competently demonstrated	**Outcome** Desired skill outcome	**Assessment Please tick**	
			Achieved	**Not achieved**
Patient assessment using the ABCDE approach	Systematic use of the ABCDE approach	Identify and treat any immediate problems/request appropriate assistance		
Infant/child basic life support	✓ SSS ABC approach ✓ Airway opening with head tilt/chin lift appropriate for age and assessment of breathing ✓ *Effective delivery of rescue breaths with appropriate self-inflating bag ✓ Appropriate assessment for signs of circulation ✓ Delivery of chest compressions appropriate to age of child ✓ Rapid reassessment of ABC and clarification that further assistance has been summoned	✓ Prioritises safety of self and casualty ✓ Assessment of responsiveness ✓ Opens airway appropriate for age to determine presence/absence of 'normal' breathing ✓ Delivery of effective rescue breaths ✓ Correct assessment of need for chest compressions ✓ Support for circulation during cardiac arrest ✓ Safe ongoing management of situation		
Gives handover to senior staff member on arrival	Gives a structured handover	Can organise reflective thoughts		

Candidate name:	**Asessors Name:**	
Achieved assessment outcome: **Yes / No**	Date:	

*For staff based in community settings, it may be appropriate to substitute rescue breaths delivered via an appropriate barrier device.

Continuous assessment for airway management skill station

Structure Specific skill	Process Specific action competently demonstrated	Outcome Desired skill outcome	Assessment Please tick	
			Achieved	Not achieved
Appropriate selection and checking of equipment	Selects and checks equipment to be used to maintain a patent airway and perform BMV, (pharyngeal suction, oropharyngeal airway, self-inflating bag-mask device with reservoir)	Appropriate equipment is immediately available to support airway and ventilatory management		
Airway opening and assessment of patency	Safe and appropriate head positioning	Opens airway with head tilt / chin lift and appropriate age-related head positioning and determines need for pharyngeal suction		
Airway maintenance	Demonstrates appropriate pharyngeal suction, correct sizing and insertion technique of oropharyngeal airway	Airway patency is achieved		
OPTIONAL Ventilation	Demonstrates effective ventilation using a pocket mask	Ventilation is established with effective use of a pocket mask		
Ventilation	Demonstrates effective ventilation using self-inflating bag-mask device with supplemental oxygen	Ventilation is established with effective use of BMV		

Candidate name:	**1st Instructor name:**	**2nd Instructor name:**
Achieved assessment outcome: **Yes / No**		Date:

Resuscitation Council UK

Candidate responsibilities when attending Resuscitation Council UK courses

It is important that all Candidates attending Resuscitation Council UK courses understand that they must behave at all times in a responsible manner, observing their professional code of conduct.

Candidates have a professional responsibility to act with probity. They must prepare adequately for the course by (for example) reading the manual, completing the pre-course MCQ paper (where applicable) and accessing all relevant e-learning materials. Where study leave has been granted to attend a course and/or the costs have been paid by an employer or educational provider, employers and educational providers have a reasonable expectation that Candidates will fulfil all the pre-course learning requirements and attend the entire course unless there are extenuating circumstances.

Candidates must be honest, trustworthy and act with integrity. Any gross misconduct by a candidate, such as cheating or blatantly disregarding approved procedures (e.g. safe defibrillation, safe use of sharps), will result in their removal from the course and will be reported to their employer and/or professional body.

References

General Medical Council
Good Medical Practice (2019)

Nursing and Midwifery Council
The Code: Standards of conduct, performance and ethics for nurses and midwives (2018)

Health and Care Professions Council
Standards of conduct, performance and ethics (2016)

General Dental Council
Standards for the Dental Team (2013)

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