

SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

(Code SMJ 202108A)

Question 1. Regarding paediatric life support:

- (a) Most paediatric cardiac arrests are due to cardiac causes.
- (b) Chest compressions with ventilations should be performed for infants and children if community first responders are able and willing, as outcomes are better than chest compression-only cardiopulmonary resuscitation (CPR).
- (c) Paediatric out-of-hospital cardiac arrests have similar favourable survival outcomes as paediatric in-hospital cardiac arrests.
- (d) For unconscious paediatric patients with foreign body obstruction, paediatric CPR (chest compressions with ventilations) should be performed after activating '995'.

Question 2. A previously well two-month-old infant was found collapsed in a crib by the mother (i.e. layperson) who was alone at home (i.e. lone rescuer). Regarding basic life support for the infant:

- (a) The mother should assess for breathing and check the pulse simultaneously within ten seconds to ascertain if there are signs of life.
- (b) The appropriate initial sequence is to start CPR immediately for two minutes (lone rescuer), then call '995'.
- (c) The mother should start CPR on the infant in the crib.
- (d) The mother should perform chest compressions (30:2) at approximately one-third chest depth.

Question 3. A doctor and nurse in a family clinic are attending to a ten-year-old child who was suddenly unresponsive. They have a paediatric bag-valve-mask (BMV) device and an automated external defibrillator (AED). Regarding basic life support for the ten-year-old:

- (a) The healthcare rescuers can assess for breathing and check the pulse simultaneously within ten seconds to ascertain if there are signs of life, and start CPR.
- (b) AEDs with paediatric attenuation systems (e.g. child pads) should be used for the ten-year-old.
- (c) Chest compressions at 100–120/minute with asynchronous ventilation (via a BVM device) at 20 ventilations/min should be performed.
- (d) The two healthcare rescuers should perform CPR with chest compression to a ventilation ratio of 15:2.

Question 4. An emergency department team is resuscitating a previously well six-year-old who was found collapsed in school. The child is 20 kg and the time of cardiac arrest is unknown. Regarding advanced life support for the six-year-old:

- (a) Post endotracheal intubation, chest compressions should be 100–120/min with asynchronous ventilation at ten ventilations per minute.
- (b) The initial rhythm is asystole and adrenaline should be given only after intravenous access is established, as it is preferable to the intraosseous route.
- (c) Reversible causes (Hs and Ts) should be considered only in non-shockable rhythms.
- (d) The paediatric patient's rhythm turns into ventricular fibrillation – an initial defibrillation dose at 80 J is appropriate.

Question 5. After ten minutes of advanced paediatric life support, a three-year-old child with out-of-hospital cardiac arrest achieves sustained return of spontaneous circulation (ROSC). The patient has been intubated.

- (a) The ventilation rate post ROSC should initially be 20 ventilations/minute and titrated to clinical response.
- (b) Oxygen concentration administration should be titrated to ensure that the pulse oximeter reading is 100%.
- (c) The rectal temperature post ROSC is now 35.2°C – the patient should be actively maintained at this temperature.
- (d) The initial heart rate was 80/minute but dropped precipitously to 48/minute – CPR should be restarted and adrenaline given, as for cardiac arrest.

True False

Doctor's particulars:

Name in full: _____ MCR no.: _____

Specialty: _____ Email: _____

SUBMISSION INSTRUCTIONS:

Visit the SMJ website: <http://www.smj.org.sg/current-issue> and select the appropriate quiz. You will be redirected to the SMA login page.

For SMA member: (1) Log in with your username and password (if you do not know your password, please click on 'Forgot your password?'). (2) Select your answers for each quiz and click 'Submit'.

For non-SMA member: (1) Create an SMJ CME account, or log in with your SMJ CME username and password (for returning users). (2) Make payment of SGD 21.40 (inclusive of 7% GST) via PayPal to access this month's quizzes. (3) Select your answers for each quiz and click 'Submit'.

RESULTS:

(1) Answers will be published online in the SMJ October 2021 issue. (2) The MCR numbers of successful candidates will be posted online at the SMJ website by 29 October 2021. (3) Passing mark is 60%. No mark will be deducted for incorrect answers. (4) The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council. (5) One CME point is awarded for successful candidates. (6) SMC credits CME points according to the month of publication of the CME article (i.e. points awarded for a quiz published in the August 2021 issue will be credited for the month of August 2021, even if the deadline is in October 2021).

Deadline for submission (August 2021 SMJ 3B CME programme): 12 noon, 22 October 2021.