

# Singapore Resuscitation and First Aid Council

## GUIDELINES for

### Basic Cardiac Life Support and Automated External Defibrillation

### Training Centre/Instructor-Training Centre (BCLS+AED TC/ITC)

## Aims and Objectives

To set up and maintain a consistent standard of teaching the BCLS+AED Provider/Instructor courses by accreditation of BCLS+AED Training Centres/Instructor-Training Centres (BCLS+AED TCs/ITCs) to achieve the following objectives:

1. To ensure BCLS+AED TCs/ITCs are teaching the BCLS+AED Provider/Instructor courses according to proper guidelines recognised nationally.
2. To ensure that BCLS+AED Instructors/Instructor-Trainers maintain their competency in the teaching of BCLS+AED Provider/Instructor courses. Competency is defined as having updated knowledge of BCLS+AED and the appropriate skills in teaching the BCLS+AED Provider/Instructor course.
3. Adhere to the guidelines set by the SRFAC to guide its training activities and in the management of the BCLS+AED TC/ITC.

## Guidelines for BCLS+AED TC/ITC

### 1) Staffing and Instructors

- a. The Program Director of the TC/ITC has the responsibility to:
  - i. attain the centre's objectives;
  - ii. maintain the quality of services provided;
  - iii. monitor the standard of training and
  - iv. ensure evaluation of the course is conducted
  - v. ensure that all Instructors/Instructor-Trainers update and enhance their knowledge and skills
- b. The Program Director of BCLS+AED TC/ITC is required to oversee the training and to ensure consistent standard of the teaching of every BCLS+AED Provider and Instructor course.
- c. The Program Director of BCLS+AED TC/ITC must possess a valid BCLS+AED Provider certificate or higher.
- d. Criteria for appointment of Instructors, Chief Instructors, Instructor-Trainers and Chief Instructor-Trainers are as follows:

| Floor Instructor (BCLS+AED / CPR+AED) |   |
|---------------------------------------|---|
| <b>Role</b>                           | <ul style="list-style-type: none"> <li>• Conduct theory and practical training and assessment according to the respective guidelines set by SRFAC</li> <li>• Ensures the safety and well-being of Learners (Trainee-Providers)</li> </ul> |

|                 |   |
|-----------------|---|
| <b>Entry</b>    | Completes the respective Instructor course with a valid BCLS+AED/CPR+AED(respectively) Provider certificate.  |
|                 | Completes 2 attachments with any BCLS+AED/CPR+AED(respectively) accredited Training Centre (TC) within 6 months of the Instructor course.   |
|                 | Appointed by accredited BCLS+AED/CPR+AED(respectively) Training Centre after attaining initial BCLS+AED/CPR+AED(respectively) Instructor Certificate from the BCLS+AED/CPR+AED(respectively) Instructor Training Centre.                              |
| <b>Validity</b> | 2 years from date of certification as a BCLS+AED/CPR+AED(respectively) Instructor.  |
| <b>Renewal</b>  | Conducts 2 BCLS+AED/CPR+AED(respectively) Provider courses per year for 2 years as an Instructor.   |
|                 | <b>If lapsed within 12 months from expiry</b> - to fulfil 2 BCLS+AED/CPR+AED(respectively) instructor attachments within 12 months from expiry (does not count towards their yearly quota). New validity will start from the date of last attachment. |
|                 | <b>If lapsed more than 12 months from expiry</b> – restart, see entry criteria.   |
|                 | Instructors who are unable to fulfil the 2 BCLS+AED courses per year for 2 years but manage to fulfil at least 2 CPR+AED courses per year over 2 years will be allowed to renew as CPR+AED instructors.   |
|                 | Renewed by BCLS+AED/CPR+AED(respectively) Training Center.  |

| <b>Chief Instructor (CI) (BCLS+AED / CPR+AED)</b> |   |
|---|---|
| <b>Role</b>                                       | <ul style="list-style-type: none"> <li>• May function as an Instructor (Chief Instructor may also “double-up” as an Instructor if class does not exceed 2 practical groups)</li> <li>• Ensures the safety and well-being of Learners (Trainee-Providers) and Instructors</li> <li>• Supervise and mentor Instructors</li> <li>• Ensure that the course content is updated and in-line with SRFAC guidelines</li> <li>• Ensure that Learners (Trainee-Providers) are assessed fairly, address issues raised by Learners/Instructors and facilitate improvements to the course</li> </ul> |
| <b>Entry</b>                                      | Instructor for the BCLS+AED/CPR+AED(respectively) course with at least 4 years of experience or equivalent.   |
|   | Recommendation by 1 BCLS+AED/CPR+AED(respectively) Chief Instructor <b>AND</b> Program Director of BCLS+AED/CPR+AED(respectively) Training Centre (TC).   |
|   | Subject to approval by SRFAC.   |
| <b>Validity</b>                                   | 2 years from date of appointment as a BCLS+AED/CPR+AED(respectively) Chief Instructor (by SRFAC).   |
| <b>Renewal</b>                                    | Conducts 2 BCLS+AED/CPR+AED(respectively) Provider courses per year for 2 years (at least 1 Provider course per year as a CI).  |
|   | Maintains a valid BCLS+AED/CPR+AED(respectively) Instructor certificate.  |
|   | <b>If lapsed within 12 months from expiry</b> - to fulfil 1 BCLS+AED/CPR+AED(respectively) Chief Instructor attachment within 12 months from expiry (does not count towards their yearly quota). New validity will start from the date of last attachment.  |
|   | <b>If lapsed more than 12 months from expiry</b> – restart, see entry criteria.   |
|   | Renewal letter by Program Director of BCLS+AED/CPR+AED(respectively) Training Centre (TC).<br>To be renewed by SRFAC only.  |

| <b>Instructor-Trainer (IT) (BCLS+AED / CPR+AED)</b> |   |
|---|---|
| <b>Role</b>   | <ul style="list-style-type: none"> <li>• Conduct theory and practical training and assessment according to the respective guidelines set by SRFAC</li> <li>• Ensures the safety and well-being of Learners (Trainee-Instructors)</li> </ul> |
| <b>Entry</b>  | BCLS+AED/CPR+AED(respectively) Instructor with at least 4 years of experience or equivalent.  |
|   | Completes 1 Instructor-Trainer (IT) attachment with any accredited BCLS+AED/CPR+AED(respectively) Instructor-Training Centre (ITC) within 12 months.  |
|   | Subject to approval by SRFAC.   |
| <b>Validity</b>                                     | 2 years from date of appointment as a BCLS+AED/CPR+AED(respectively) Instructor-Trainer (by SRFAC).   |

|                |  |
|----------------|--|
| <b>Renewal</b> | Conducts at least 1 BCLS+AED/CPR+AED(respectively) Instructor course per year for 2 years as an Instructor-Trainer.  |
|                | Maintains a valid BCLS+AED/CPR+AED(respectively) Instructor certificate.   |
|                | <b>If lapsed within 12 months from expiry</b> - to fulfil 1 BCLS+AED/CPR+AED(respectively) Instructor-Trainer attachment within 12 months from expiry (does not count towards their yearly quota). New validity will start from the date of last attachment. |
|                | <b>If lapsed more than 12 months from expiry</b> – restart, see entry criteria.  |
|                | Renewal letter by Program Director of BCLS+AED/CPR+AED(respectively) Instructor Training Centre (ITC).   |
|                | To be renewed by SRFAC only.   |

| <b>Chief Instructor-Trainer (CIT) (BCLS+AED / CPR+AED)</b> |  |
|--|--|
| <b>Role</b>  | <ul style="list-style-type: none"> <li>• May function as an Instructor-Trainer (Chief Instructor-Trainer may also “double-up” as an Instructor-Trainer if class does not exceed 2 practical groups)</li> <li>• Ensures the safety and well-being of Learners (Trainee-Instructors) and Instructor-Trainers</li> <li>• Supervise and mentor Instructor-Trainers</li> <li>• Ensure that the course content is updated and in-line with SRFAC guidelines</li> <li>• Ensure that Learners (Trainee-Instructors) are assessed fairly, address issues raised by Learners/Instructors and facilitate improvements to the course</li> </ul>  |
| <b>Entry</b>   | <p><b>At least 4 years of experience or equivalent as:</b></p> <ul style="list-style-type: none"> <li>• BCLS+AED/CPR+AED(respectively) Instructor-Trainer (IT)</li> </ul> <p><b>AND</b></p> <ul style="list-style-type: none"> <li>• BCLS+AED/CPR+AED(respectively) Chief Instructor (CI)</li> </ul> <p>Recommendation by 1 BCLS+AED/CPR+AED(respectively) Chief Instructor-Trainer <b>AND</b> Program Director of BCLS+AED/CPR+AED(respectively) Instructor Training Centre (ITC).</p> <p>Subject to approval by SRFAC.</p>   |
| <b>Validity</b>  | 2 years from date of appointment as a BCLS+AED/CPR+AED(respectively) Chief Instructor-Trainer (by SRFAC).  |
| <b>Renewal</b>   | <p>Conducts at least 1 BCLS+AED/CPR+AED(respectively) Instructor course per year for 2 years as BCLS+AED/CPR+AED(respectively) Chief Instructor-Trainer.</p> <p>Maintains a valid BCLS+AED/CPR+AED(respectively) Instructor-Trainer <b>AND</b> BCLS+AED/CPR+AED(respectively) Chief Instructor certificate.</p> <p><b>If lapsed within 12 months from expiry</b> - to fulfil 1 CPR+AED/BCLS+AED Chief Instructor-Trainer attachment within 12 months from expiry (does not count towards their yearly quota). New validity will start from the date of last attachment.</p> <p><b>If lapsed more than 12 months from expiry</b> – restart, see entry criteria.</p> <p>Renewal letter by Program Director of BCLS+AED/CPR+AED(respectively) Instructor Training Centre (ITC).</p> <p>To be renewed by SRFAC only.</p> |

- e. The TC/ITC shall be responsible for ensuring that all Instructors update and enhance their knowledge and skills in BCLS+AED Provider/Instructor training.
- f. During the Provider/Instructor course, the Instructor-to-Manikin-to-Learner ratio is **1:1:6**.

## 2) Program and Content

- a. All existing BCLS TC/ITC will need to be on the BCLS+AED track by **1<sup>st</sup> June 2019**.
- b. The program should be properly communicated so that learners know what to expect and be appropriately prepared for the course.

- c. The contents of the training should adhere to the recommended BCLS+AED guidelines. Hence, the TC/ITC should be represented at every SRFAC update sessions.
- d. TCs/ITCs are encouraged to use SRFAC produced manuals which is available on SRFAC website.
- e. Course materials should be sent to the learners at least two (2) weeks prior to the course. This is to ensure that learners will have ample time to read and prepare for the course.
- f. SRFAC will not stipulate any lower or upper limits for the duration of the courses. It is up to the TC/ITC to decide if the hours indicated are sufficient for both healthcare and non-healthcare learners.
- g. Learners enrolled in the E-learning packages can complete the theory lesson component but must complete the remaining hands-on practice, practical and theory assessment which must be conducted in the presence of the instructor for all SRFAC accredited courses.
- h. The assessments should meet the SRFAC recommendations:
  - i. BCLS+AED:

At least two (2) different sets of theory assessment papers are readily available to be used interchangeably in the course (Minimum of 25 questions), passing mark is set at 80% and up to three (3) attempts are allowed for each learner. Theory Assessment must include the following:

    1. Adult CPR (Mouth-To-Mouth)
    2. Use of AED
    3. Adult FBAO – Conscious and Unconscious
    4. Infant CPR
    5. Infant FBAO – Conscious and Unconscious
  - ii. CPR+AED:

At least two (2) different sets of theory assessment papers are readily available to be used interchangeably in the course (Minimum of 10 questions), passing mark is set at 80% and up to three (3) attempts are allowed for each learner. Theory Assessment must include the following:

    1. Adult CPR (Hands-Only)
    2. Use of AED
  - iii. Practical assessment checklists used in the course should cover various AED scenarios.
  - iv. BCLS+AED practical test must include Adult CPR(Mouth-To-Mouth), AED, Conscious and Unconscious FBAO (Adult), Infant CPR, Conscious and Unconscious FBAO (Infant) with up to 3 attempts.
  - v. CPR+AED practical test must include Adult CPR(Hands-Only) and AED with up to three (3) attempts.
  - vi. SRFAC's One-Rescuer CPR(Mouth-To-Mouth) passing criteria:
    1. 5 cycles of CPR to be completed within 130 seconds
    2. At least 150 chest compressions
    3. Up to 30 errors allowed:
      - a. insufficient recoil

- b. incorrect depth
    - c. improper hand position (within lower sternum but not on the Xiphoid Process or on the ribs) – must be visually verified by Instructor
  4. At least 5 ventilations above 400ml
  5. Immediate failure for wrong hand position (outside lower sternum, on Xiphoid Process or on the ribs) visibly outside body of sternum – must be visually verified by Instructor
- vii. SRFAC's One-Rescuer CPR(Hands-Only) passing criteria:
  1. Continuous compressions for 120 seconds (timing cut-off at 120 seconds)
  2. At least 180 chest compressions
  3. Up to 30 % errors allowed based on total number of compressions:
    - a. insufficient recoil
    - b. incorrect depth
    - c. improper hand position (within lower sternum but not on the Xiphoid Process or on the ribs) – must be visually verified by Instructor
  4. Immediate failure for wrong hand position (outside lower sternum, on Xiphoid Process or on the ribs) visibly outside body of sternum – must be visually verified by Instructor
- viii. AED practical training must focus on safe use and understanding of the protocol:
  1. Do not perform chest compressions/CPR while AED is analysing/charging
  2. AED analysis – Shock advised – Ensure there is no contact with Casualty when delivering Shock – Continue chest compressions/CPR after Shock delivered
  3. AED analysis – No Shock advised – Continue chest compressions/CPR
  4. Stop chest compressions/CPR when:
    - a. Paramedic takes over from the rescuer
    - b. AED analyses the heart rhythm
    - c. Casualty wakes up or has normal breathing (and pulse - for Healthcare Providers taking BCLS+AED)
- i. Practice different AED scenarios:
  - i. Shock - No Shock - No Shock
  - ii. No Shock - Shock - No Shock
  - iii. Shock - Shock - No Shock
  - iv. No Shock - No Shock – Shock
  - v. No Shock - No Shock - No Shock
- j. Practical assessment checklist should include one of the AED scenarios listed above (except the “No Shock - No Shock - No Shock” scenario).
- k. The BCLS+AED TC should conduct a **minimum of 3 provider courses per year**.
- l. The BCLS+AED ITC should conduct a **minimum of 1 instructor course per year**.
- m. TC/ITC should comprise of at least 1 Program Director and 1 Chief Instructor/Chief Instructor-Trainer.

### 3) Facilities and Equipment

- a. The TC/ITC has the responsibility to provide appropriate facilities and equipment to facilitate the training:
  - i. Adequate lighting and ventilation

- ii. Adequate space for practical session (does not infringe on public areas such as stairwells, corridors, walkways or lobby)
    - iii. Secure storage for assessment papers within the Centre
  - b. The TC/ITC should have the following to ensure the safety of its staff and learners by providing:
    - i. Evacuation plan
    - ii. Safety and health briefing
  - c. Specific manikins are required to be used for all BCLS+AED and CPR+AED practical assessment of one rescuer CPR by **1<sup>st</sup> June 2019**.
    - i. For BCLS+AED and CPR(Mouth-To-Mouth)+AED courses, assessment recording of the one rescuer CPR must display the following:
      - Total elapsed time for 5 cycles
      - Total number of compressions
      - Total number of ventilations
      - Total number of correct and incorrect compressions
      - Insufficient recoil/relaxation of compressions
      - Correct Compression depth set at 4cm to 6cm
      - Correct ventilation volume set at 400ml to 600ml
      - Line/graph/strip of actual compressions and ventilations
    - ii. For CPR(Hands-Only)+AED courses, assessment recording of the one rescuer CPR must display the following:
      - Automatic cut-off at 120 seconds
      - Total number of compressions
      - Total number of correct and incorrect compressions
      - Insufficient recoil/relaxation of compressions
      - Correct Compression depth set at 4cm to 6cm
      - Line/graph/strip of actual compressions
  - d. Specific manikins are required to be used for practical assessment of one rescuer CPR by **1<sup>st</sup> June 2019**, as well as Automated External Defibrillator (AED) trainer sets in good working condition to be used during the respective course - See "SRFAC BCLS+AED and CPR+AED Manikin Specification" document
    - i. The ratio of instructor to manikin to learners should not exceed **1:1:6**.
    - ii. The maintenance and disinfecting of the manikins should be carried out in accordance to recommendations by the manufacturer.

#### 4) Certification

- a. Learners who have successfully completed the course should be issued certificates with the following clearly indicated:
  - i. Name and signature of Program Director/Chief Instructor
  - ii. Full name of the learner
  - iii. Name of TC/ITC
  - iv. Course type (eg. BCLS+AED/CPR(MTM)+AED/CPR(HO)+AED Provider, BCLS+AED/CPR+AED Instructor)
  - v. Certificate validity and serial number/course reference number

- vi. States “Accredited by the Singapore Resuscitation and First Aid Council” – logo of SRFAC can be included
- b. Learners who do not pass BOTH theory AND practical assessment, should not be issued a BCLS+AED Provider certificate.
- c. Upon completion of the Provider course, Provider’s certificate must be issued within 30 days from the completion of course. If certificate is not immediately available, TC should issue a memo to indicate that the learner has successfully completed the course and is waiting for the official certificate.
- d. BCLS+AED and CPR(MTM/HO)+AED Provider certificate is eligible for renewal/refresher course **3 months before or 3 months after** the stated expiry date. **Validity of 2 years will start from:**
  - i. the stated expiry date
  - OR**
  - ii. date of training

The following cases will be within the Healthcare Institution/TC’s discretion for renewal (if different from above):

- iii. Health Manpower Development Plan (HMDP)
- iv. Overseas studies
- v. Long hospitalisation/medical/maternity leave or equivalent
- vi. Practice of no-grace period if their internal policy decides so
- e. Upon completion of the Instructor course and 2 attachments (within 6 months) with an accredited Training Centre, an Instructor certificate must be issued by the Instructor Training Centre (ITC) and is valid for 2 years.
  - i. Renewal may be done by the Training Centre(s) which engaged the Instructor and can only be renewed if the Instructor conducts at least 2 BCLS+AED Provider courses per year over 2 years **before** the expiry of the BCLS+AED Instructor certificate.
  - ii. The initial Instructor certificate must be issued within 30 days from the submission of the Instructor-Trainee attachment form (after fulfilling 2 attachments) to the Instructor Training Centre (ITC). Validity of the Instructor certificate will start from the date of Instructor course completion.
  - iii. If certificate is not immediately available, ITC should issue a memo to indicate that the learner has successfully completed the course and is waiting for the certificate.
- f. Foreign certificate – If it is the requirement of the healthcare institution/organisation to accept SRFAC-accredited certification, individuals with valid (non-expired) foreign certification can enrol for the respective SRFAC-accredited refresher course with any SRFAC-accredited Training Centres. If in doubt, please consult SRFAC.

## 5) Records

- a. Each TC/ITC should maintain the following records for at least 2 years:
  - i. Attendance lists (with course reference number)
  - ii. Learners' Theory and practical assessment papers
  - iii. Learners' Evaluation forms
  - iv. Record of Issued certificates
  - v. Record of learner's expiring certificate (to validate entry for refresher course)
  - vi. Record of disinfection/maintenance of manikins

## 6) Evaluation of BCLS+AED Provider/Instructor course

- a. There should be evaluation procedures by which the standards of the training program are assessed and maintained.
  - i. The procedures should provide a mechanism to enable feedback obtained from the evaluation to be used effectively for the on-going improvement of teaching knowledge and techniques in BCLS+AED Provider/Instructor courses. It is recommended that the TC/ITC maintain records of feedback/evaluation information for reference.
  - ii. The feedback can be gathered from learners via paper or online methods. Provide the print version of online feedback form for audit.
- b. The evaluation tools and methods should be reviewed regularly and revised according to updates provided by SRFAC.
- c. Chief Instructors and Instructors of the TC/ITC should participate in the formulation of plans to overcome any identified deficiencies in the service.

## 7) Accreditation Process

- a. Accredited BCLS+AED TCs will be able to conduct BCLS+AED and CPR+AED courses, while accredited CPR+AED TCs are only allowed to conduct CPR(Hands-Only)+AED courses.
- b. To be an accredited BCLS+AED Instructor Training Centre (ITC), it must be a valid accredited BCLS+AED Provider Training Centre (TC).
- c. Accredited BCLS+AED ITCs will be able to conduct BCLS+AED Instructor courses, while accredited CPR+AED ITCs will be able to conduct CPR+AED Instructor courses. BCLS+AED Instructors will be able to conduct BCLS+AED and CPR+AED courses, while CPR+AED Instructors are only allowed to conduct CPR(Hands-Only)+AED courses.
- d. CPR(Mouth-To-Mouth)+AED course should no longer be conducted **from 1st May 2020**.
- e. CPR(Hands-Only)+AED course will be the default CPR+AED course to be offered by accredited TCs **from 1st May 2020**.
- f. CPR+AED Instructor Training Centres (ITCs) will need to revise their materials to cater for the Hands-Only version of the instructor course **by 1st May 2020**.



- g. Learners seeking to learn mouth-to-mouth ventilations will be encouraged to enrol for BCLS+AED course.
- h. Audit Fee: **S\$535.00** (inclusive of GST) per audit, payable upon completion of audit application. Training centre which fails the first audit is required to pay for each subsequent audit. Institutions under SingHealth only need to pay **S\$500** (without GST) due to Group GST Registration.
- i. Please submit cheque payable to **“Singapore General Hospital Pte Ltd”** and mail to:
  - Singapore Resuscitation and First Aid Council**
  - SingHealth Tower (Outram Community Hospital)**
  - 10 Hospital Boulevard, Level 5,**
  - Singapore 168582**
- j. Approval of accreditation audit is subject to the fulfilment of SRFAC guidelines and accreditation audit.
- k. Audit will not proceed and/or the audit fee forfeited, if:
  - i. the class is cancelled without informing SRFAC at least 1 week in advance
  - ii. the class does not start within 30 minutes from the stated commencement time
- l. There should be **at least 3 learners** to form a class for the accreditation audit.
- m. Accreditation validity of 2 years will start from:
  - i. the approval date (for new TC accreditation); or
  - ii. the following calendar day after the current validity expires (for subsequent TC renewal accreditation)
- n. Provider TCs will need to provide 1 date when seeking new accreditation and 3 dates for renewal accreditation. ITCs seeking new or renewal accreditation will need to submit 1 date for the audit.
- o. It is recommended to start the renewal accreditation application **3 months before** its expiry. There should be a period of **at least 3 weeks from** the date of application (based on complete submission of required documents via SRFAC website) to the earliest audit date provided.
- p. For Training Centres (TCs):
  - i. Course reference numbers of the training records of **at least six (6) courses** conducted since the last accreditation audit will be recorded – Randomly selected by Auditors and checked on site.
  - ii. Auditors should not be in possession of the training records outside of the audit.
- q. For Instructor Training Centres (ITCs):
  - i. Course reference numbers of the training records of **at least two (2) courses** conducted since the last accreditation audit will be recorded – Randomly selected by Auditors and checked on site.
  - ii. Auditors should not be in possession of the training records outside of the audit.

- r. Renewal audit completed after the accreditation status has lapsed, will be backdated to the stated expiry date. Accreditation status is non-transferrable.