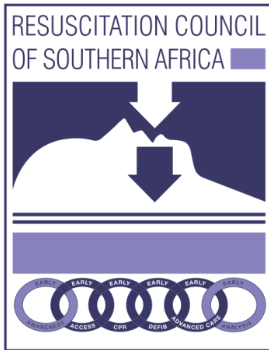

RESUSCITATION COUNCIL OF SOUTHERN AFRICA
Physical Address: 72 Sophia Street, Fairland, 2170, Johannesburg, South Africa
Postal Address: PO Box 73283, Fairland, 2030, South Africa
Tel: +27 (0) 11 478 3989 Fax: +27 (0) 86 607 3930
E-mail: info@resus.co.za Website: www.resus.co.za
Non-Profit Organisation - Ref: 118-161 NPO VAT No: 4260212107

May 2020

General suggestions when training Advanced Life Support

DRAFT

RCSA believes that CPR / BLS / ACLS / PALS / ACLS EP courses are part of the vital ongoing training needed to support the comprehensive management of all persons, COVID or non-COVID.

- Therefore, we have requested that this training be classified as an essential service.
- How we train these courses will have a huge influence on not only the instructor, BUT more so, on the medical profession going forward, especially during these challenging times.
- We DO NOT need to change the content of the courses, but rather need to show our participants that we can safely train and therefore safely manage our patients in any clinical situation

Admin prior to and at the start of the course.

- Minimising exposure for the instructor:
  - Request participants to complete the ethics assignment and return electronically before the course commences.
  - Request participants to send a screen shot of the pre-test result electronically 2 days prior to the course start date.
  - Request participants to complete the course register electronically and then only sign on the day of the course.
- Each participant should be issued with a “Travel document” from the specific training centre indicating the following: (Please note: **will not** be issued by the RCSA office)
  - The participant’s name and ID number
  - Venue with dates and predicted times
  - Confirmation that the course fulfils “essential training” (if possible, including the CIPC document)
  - Contact details of the training centre / instructor
- Sign the “Disclosure form” on the morning of each day of training (may e-mail with the admin documents but must sign on each day of training) – see attached “Disclosure form”
- Check temperatures daily as participants arrive, as another screening tool
  - (Understandably, paracetamol may mask a fever if taken prior to temperature measurement, however, we would like to maintain as safe a training environment as possible)

General sanitising rules – to also discuss with the participants:

- Sanitise all surfaces before and after use with a commercial surface sanitiser (as per manufacturer) or ≥ 70% alcohol solution or diluted household bleach (4 teaspoons undiluted bleach per 1 litre of water as suggested by the CDC).
  - Imperative to follow the rules of the manufacturer, if commercial sanitiser is used.
  - The alcohol solution should be allowed to dry before equipment / surface is used again

  - The diluted household bleach should be left at least 1 minute on surface equipment before it is effective
- Sanitise and /or wash (with water and soap) ALL equipment, before and after each use, e.g. after a practical skill or scenario role play.
- Have the least possible amount of equipment unpacked and available for training
- Request participants to bring their own masks / hand sanitiser to the course which can used for the entire duration of the day – they do not have to use new masks with each practical skill, unless soiled or damaged.

  - Rules regarding correct mask use
    - "At any time if surgical masks are touched by unwashed hands, get wet, are soiled, or are removed from the face, they will become contaminated and will no longer provide effective protection. They should then be discarded."
    - "Masks that are not wet, were not touched by unwashed hands and were not removed from the face, can be worn for up to 8 hours."
    - Assure good understanding of the principles as set out under paragraph 8.2.1 to 8.3 (page 12 – 14) of the NICD document COVID-19 Infection and Prevention Control Guidelines of 1 April 2020

  - Rules regarding safety goggles / face shield
    - Assure good understanding of the principles as set out under paragraph 8 (page 11 – 16) of the NICD document COVID-19 Infection and Prevention Control Guidelines of 1 April 2020

  - Rules regarding hand wash
    - "Hands must be thoroughly and systematically washed paying special attention to the most contaminated areas, such as the fingers and thumbs."
    - "When washing hands, friction is necessary to remove transient microbes from the hands."
    - Assure good understanding of the principles as set out under paragraph 7 (page 9 – 11) of the NICD document COVID-19 Infection and Prevention Control Guidelines of 1 April 2020

- Ensure you have a sufficient supply of masks and hand sanitisers available for the participants who do not bring their own.
- Minimise sharing objects where possible such as "role tags" – see rotation suggestions
- Keep the smaller teams in the training group the same throughout the entire course to minimise direct contact e.g. two teams of 4 each if 8 participants and the teams will stay the same for the entire course
- Social distancing
  - At least 1 – 2 meters apart – within the class set-up
  - Ensure appropriate distancing during tea / lunch times / breaks
  - During the practical scenarios, distancing may be impossible, ensure no time wastage when in close proximity, ie: perform the task/scenario effectively where the objectives are meet efficiently and then disperse the group for discussion/debrief.

<u>Testing:</u>

- Test papers should be sanitised after each use – practical suggestion may be to utilise "flip files" (plastic folders) where every page is covered in a plastic sheet. These sheets may be sanitised after use with a ≥ 70% alcohol solution or diluted household bleach (4 teaspoons undiluted bleach per 1 litre of water as suggested by the CDC)
- Other possible measures to avoid unnecessary contact between the instructor and the participants, could be to allow the participant keep the test while the instructor is marking and only take it back once the questions have been reviewed WITHOUT compromising on security of the tests.

DRAFT 1

Critical discussions before the course begins:

- Sanitising rules – discuss as above
- Mention that the course is to teach the principles of resuscitation under the current COVID-19 situation
- This course will NOT prescriptively define and educate:
    - The pathophysiology of a SARS-CoV-2 victim, as this is not yet fully understood.
    - The medical management of such a patient as the therapies currently are anecdotal and will be answered with ongoing research studies.

- RCSA is currently working on the addition of two clinical SARS-CoV-2 scenarios that may be integrated into the ALS courses going forward.

BLS:
See principles from BLS faculty

ACLS:
Day one

Airway:

- Adhere to principles of good hygiene / sanitising
- Normal teaching of this skill with the following changes:
    - Bag-mask-ventilation must be taught with using a very tight seal on the face to minimise droplet spread therefore this can only be a two-person technique
    - A HEPA filter should be used between the mask and the bag – at this stage any filter will do during training as long as they understand that best practices will be a HEPA filter
    - In the COVID situation the rest of the world suggest that we utilise a supraglottic device rather than conventional intubation due to the high incidence of droplet spread
    - The revised guidelines currently for intubation in the COVID situation are:
        - Intubation is NOT a rushed situation and good pre-planning is needed
        - Full PPE protection by the whole team.
        - Least amount of people involved and present.
        - Intubator must be the most experienced person available.
        - Where at all possible, videolaryngoscopy is the intubating procedure of choice
        - The patient should not be preoxygenated using bag-mask-ventilation (BMV) if at all possible. If BMV is needed then with a very tight seal – some countries suggest a mask fitted like a CPAP mask with straps (otherwise one person secures the mask to the face with two hands and a second person compresses the self-inflating bag)
        - If BMV is used a HEPA filter is essential
        - After tube or device insertion the rest of the intubation process continues as normal.
- Minimise the number of participants in the skills practice group to 4 and rotate the groups or have more than one manikin available if training simultaneously in their small groups
- Remember to clean / sanitise equipment, manikin and participants hands before and after each practice

Defibrillation skills station:

- Training should follow normal procedure
- Take care to sanitise or clean the handles / machine buttons before and after each use by the participants

"Megacode" scenario stations:

- Attempt to divide the participants in two smaller groups and keep these groups the same for the duration of the course. Attempting to minimise the multiple individual inter-contact

- The first group will be the "inner circle" actually managing the patient while the second group will be the "outer circle" who will be helping with the scenario "from a distance," to minimise direct contact BUT still fully involved and important in the scenario – see suggested rotations
- After 4 scenarios, the "inner circle" participants rotate with the "outer circle" participants and 4 more scenarios are practiced
- In the potential SARS-CoV-2 patient the principles would be the following
  - Safety even more important than ever – adhere to principles
  - Check for a shockable rhythm and defibrillate as per algorithm
  - BMV with HEPA filter and very tight seal on face and if intubation needed then rather a supraglottic device
  - High quality CPR
  - Finding the reversible cause/s **asap** and correcting them, is extremely important. Attempt to prevent prolonged resuscitations.
  - It appears when a cause is **not found** and **no shockable rhythm**, the chances of survival with good neurological outcome is very poor, thus a decision should be made to terminate the resuscitation
  - Can check the temperature under the H's and T's as part of SARS-CoV-2 screening
  - Ventilator settings if intubated to allow CPR so that BMV would not be necessary –
    - Volume control ventilation mode, TV setting of 4-6mls/kg, respiratory rate at 10-12/minute, PEEP 6-8cnH_20, FiO_2 100%, High pressure alarm 60cmH_20
  - (Do not get involved in long discussions regarding potential pathophysiology or treatment of SARS-CoV-2 patients – we do not have enough evidence on any specifics as yet – when we have specific scenarios for the SARS-CoV-2 cases we will have some guidance on what/how to train this)
- Remember to clean / sanitise equipment, manikin and participants hands before and after each practice

Day two ACLS:

Ethics discussion:

- Discussion as usual
- Discuss the ethical situation of health care practitioner safety and patient in need of CPR
- New emphasis in the COVID-19 situation:
  - Important to discuss the potential impending complications and potential death before the patient is critical with the patient and/or family
  - Critical here to discuss end-of-life decisions such as a living will with the patient AND family while it is still possible or just the family if the patient is already critically ill
  - This was always important BUT NOW we have no choice and we have to discuss it with the patient and/or family due to the potential morbidity/mortality

Bradycardia and tachycardia scenarios:

- Continue with the two smaller groups in the "inner/outer circle" during practice to minimise direct contact.
- Scenarios are run as before except with the two smaller groups as the "inner and outer circles".
- Remember to clean / sanitise equipment, manikin and participants hands before and after practice

Practical examination:

- This will run as usual except with the principle of minimizing direct contact by using the two smaller "inner and outer circle" groups
- Remember to clean / sanitise equipment, manikin and participants hands before and after practical testing

DRAFT 1