

Guidelines for Virtual conduct of ATLS Instructor Course

Due to the COVID 19 pandemic, many ATLS programs have struggled to conduct a face-to-face Instructor Course caused by the challenges of maintaining physical distancing and Personal Protective Equipment (PPE). The Senior Educator Advisory Board has been asked to develop guidelines to assist ATLS Instructor Course (IC) Educators and Course Directors to use technology to deliver aspects of the course.

These guidelines have been developed based on sound educational principles aligning with the mission and structure of the ATLS instructor course. Recommendations regarding each individual course component's suitability for delivery in a virtual environment have been provided along with the rationale underpinning them and some practical tips to maximize the educational benefit of the proposed virtual component. These are the minimum requirements for successfully delivering some aspects of the ATLS instructor course virtually.

Obviously, there are pros and cons to both in person teaching and online learning and it is important to carefully evaluate these before deciding to implement. Decisions should be made based on local context, technology availability, target audiences, financial implications, and requirements for training instructors.

Overall, SEAB recommends these guidelines to be used as support tool for regions looking for ways to offer IC's **only during the extraordinary circumstances while facing the COVID 19 pandemic.**

Working towards the 11th Edition, SEAB will consider the lessons learned with regards to incorporating blended and/or online elements in the ATLS instructor course. Nevertheless, **we strongly believe that the in-person character of the ATLS instructor course is pivotal** for optimal achievement not only for the skills- and application-oriented learning goals, but also the social- and affective part of becoming a future member of the ATLS Instructor Community.

Technology Requirements

To successfully conduct aspects of the Instructor course virtually the following technology requirements are recommended:

- Stable internet connections – this is particularly necessary to ensure good audio and visual and that participants, instructors and educators are present for the entire session. Slow speed internet will result in delays and audio lagging which will impact on the quality of the teaching and subsequently the learning.
- Onsite technical support – this is necessary to troubleshoot any technical issues that may arise during the course and to support individual participants who may experience technical issues.
- Pre course familiarization – participants and instructors alike need to be provided with pre course education on the virtual platform to be used to ensure the smooth running of the course. There are a variety of online platforms and functionality differs between these particularly regarding screen sharing, chat, poll and participant notification. All faculty and participants need to be able to use the platform. This familiarization may be able to be short video demonstrations, handouts or a brief pre course webinar.

- Online platform needs to be able to provide the option for breakout rooms to facilitate small group activities.
- Ability to see participants as a large group – some platforms limit the number of participants that can be visualized at one time on the screen. Ideally, all participants and faculty teaching at the time should be able to see each other to facilitate interaction and monitor engagement.

Course Scheduling

ATLS instructor course schedules are available for 1, 1.5 and 2 days. These schedules do not automatically translate into a hybrid course schedule. Attention span and fatigue have been well documented using technology in the virtual space. As such, **SEAB strongly recommends that any online sessions are limited to 90 minutes** to maintain attention, engagement, interaction and avoid learner and faculty fatigue. As such, the ATLS instructor course schedules will need to be modified to ensure this occurs. In addition, SEAB recommends a maximum of 9 participants due to the limitations of the virtual environment for interaction.

Course Directors (CDs) and Coordinators in consultation with their ATLS Educator should consider the optimum schedule to facilitate learning. One of the advantages of a hybrid approach is the flexibility that the online delivery allows, with evening sessions being more readily acceptable than in a face to face course delivery. Therefore, consideration should be given to extending the period over which the course is offered. For example, a 1.5-day face to face course may be “chunked” into sessions spread across a week or longer. This will allow participants to reflect on what they have learned and to come fresh to the next session. Essential to any changes to scheduling is adherence to the ATLS instructor course principles and ensuring that all content is to be covered.

In the next section we will tailor our recommendations to the various parts in the IC, providing a clear YES/NO on whether this can be done online, followed by a brief rationale and some tips & tricks to optimize the learning process and outcomes.

Interactive Lectures (the plenary sessions on adult learning, feedback principles etc.)

Suitability for Virtual Delivery: Yes

Rationale: As the main purpose of the Interactive lectures are to elaborate and clarify mainly cognitive principles, this can be done in an online environment with the Educator in a role that is quite like the face-to-face IC. Skills to stimulate interaction and maintain engagement are important in all course environments but are crucial when teaching in an online platform, so this requires the Educators to thoroughly prepare additional means to achieve this.

Recommendations to optimize learning

In an online environment, capturing and holding participants’ attention, to better engage participants in their learning, and ultimately to help them persist and succeed requires extra attention from the facilitators. Below, some suggestions are offered, but the actual application needs to fit into local circumstances, available resources and the course schedule.

- ✓ Set clear expectations in pre-course communication about the way this course will be run and the importance of all being committed to do “the extra bit” to make this work. CD to reinforce this again in the Course SET at the beginning.

- ✓ Invite all participants to keep camera on during all teaching sessions (and bring this up again or invite people via a personal mail to join again if you see people leaving the 'room' for a longer period). Just to emphasize that their participation is vital for the group learning process as well (and of course, to show that they are 'part of the game' and missed if not there).
- ✓ Reading of the manual before the course needs to be absolutely mandatory so people come to the course with basic prior knowledge to build on and therefore helps to make the virtual discussions to be short, to the point, lively and almost 'entertaining'.
- ✓ Educators need to adapt their normal teaching to the online environment by thinking about how to involve and maintain attention from all participants. Break down the lecture into meaningful pieces with short interactive activities (e.g., questions, short videos or polls, or 'think-pair-share' activities with 2-3 participants put in a small breakout room for a few minutes). The actual way to do this depends on the potential options within the platform of use but also on the Educator's familiarity with online teaching. Pre-course practice is essential to make sure polls, breakout-rooms or videos work. If in doubt, because of, for example, a potentially unstable internet connection, choose options that require less switching from one mode to another, by preparing a set of interesting questions and contributions from other faculty (examples from their teaching experience) to maintain engagement.
- ✓ When working with a platform with chat function, we recommend involving another faculty member to monitor the chat and assist the Educator in incorporating these comments or questions in the flow of the interactive lecture.
- ✓ Be mindful of verbal and non-verbal expression, which may need to be exaggerated for effect on video. Be mindful of personal energy level in order to project enthusiasm and to carry through the level of interaction virtually. Ensure that the video frame allows viewing of face, torso and hands (not only faces), particularly for faculty.
- ✓ To ensure everyone feels safe and free to participate and ask questions, it is important the Educator clarify some rules on how to do this in the SET. Important aspects are: WHEN questions can be brought up, HOW (using chat? raising hand?) and how to respond to questions from other participants (not only the actual moment but also the 'tone' with which this is done, as we know feedback in an online environment may be perceived to be harder than in a face-to-face settings).

Micro-teaching (practice and summative assessment) with IC participants learning to perform their role as instructor

Suitability for Virtual Delivery: Partially

Rationale:

- Small groups can be used in the virtual environment and the IC participant can practice their interactive lecture skills with those fellow participants. Roles can be assigned and adopted as in the face-to-face IC.

- However, for the various teaching skills itself: **the educator and CD will not be able to** evaluate IC body language, movement across the room, eye contact, voice projection, or managing teaching in an open classroom when just teaching online. For this reason, if virtual microteaching is implemented in your IC when the participants do their instructor candidate course, they will need additional support and evaluation of these elements.
- Furthermore, the small group practice sessions also have an important role in the more overarching goal of exposure to and 'adoption' of the ATLS teaching philosophy. Although one could say that strictly speaking you might address these issues online too, it does not come near to the power of personal interaction and sharing.
- Most important: in the IC we prepare instructors to teach in courses that in normal circumstances are and, in most contexts, will again be face-to-face by character. Therefore, to align IC with practice and support transfer of learning, ideally the IC practice should be similar to the Provider Course practice.

Recommendations to optimize learning

As the educational concept behind the demo stays the same, just a few specific recommendations.

- ✓ If gathering at the same venue is absolutely impossible, one could think of a small group of students being at the same site with 1-2 IC instructor(s) practicing subsequent teaching skills, with a camera connected to the Educator and CD in the IC, to 'hop around' breakout rooms to get a feeling about how everyone is doing, 'adopting' ATLS (IA) teaching principles.
- ✓ Optimal group size: 1 IC instructor with group of 3 candidates. This number of participants allows the IC candidate to practice interaction, teach a skill to a small group and have enough peers to participate in different roles in the IA demo, in which the moulage patient is replaced by a model for safety reasons.
- ✓ If doing virtually you will need to use breakout rooms with a CD or Educator in each room to give feedback.

Skills Teaching (principles, demo and practice)

Suitability for Virtual Delivery: Partially

Rationale: There are three components to the Skills Teaching in the IC. Firstly, there is the cognitive element of the 5 Step model and how to acquire a psychomotor skill. Secondly there is how to apply the 5-step model for a group of participants in a provider course and finally there is the practice of teaching a group with the 5-step model. The first two elements are possible to do in the virtual environment, however, the final element of practicing the skill is not suitable for virtual delivery.

Recommendations to optimize learning

- ✓ As for the Interactive lectures the rationale for teaching a skill using the 5-step model can be done online
- ✓ A faculty member can demonstrate how to teach a skill to a fellow-faculty member, with the Educator providing additional background. This could be done with a pre-recorded demo of the skills teaching itself, with the Educator breaking it down in chunks to comment and give

room for questions during the IC. Other options: Educator providing SET and explaining basic principles to the whole group, then split up in breakout rooms with small groups on different sites where a local instructor demonstrates how to teach a skill using the stepwise approach, then come back in whole group for questions and Closure.

Initial Assessment Scenarios (IA) (principles, demo and practice)

Suitability for Virtual Delivery: Partially

Rationale: similar to rationale behind the skills teaching. The cognitive elements and the demonstration can be done online however the practice and summative assessment of the IC participant applying these principles to managing an Initial Assessment (IA) cannot be achieved adequately in the virtual environment.

The goal of this demo is on *principles behind* applying ESDC and on how to coach a student in an IA patient scenario session as *instructor*. There is no practical work by the IC candidates required in this session. Yet, it is crucial that IC participants have to opportunity to closely observe the behavior from the 'mock student' to which the IC instructor adapts his or her coaching. Recording a demo would require high quality/costs resources (wide angle cameras with ability to see faces, high quality audio with minimal delay, someone to video the demo skillfully). These are not available at most course sites and an investment, just to overcome the COVID period might be disproportional to the gain. Therefore, SEAB recommends the IA demo to be face-to-face setting, with social distancing and proper use of PPE.

Recommendations to optimize learning

As the educational concept behind the demo stays the same as in the regular IC, just a few specific recommendations.

- ✓ The demo may be done by making a video. As mentioned before the cost/benefit might not be worth it.
- ✓ Alternatively, it would require a set of faculty members to be present to do the demo and Educator to comment. Might not always be easy in busy clinical times.
- ✓ Make sure appropriate safety guidelines are strictly applied during the demo.

Socialization

Rationale: As mentioned before, the IC is not just about acquiring learning- and teaching skills, but also an important step in becoming a future member of the ATLS Community of Teaching. Feeling welcome and invited, watching faculty role modelling how to create a safe and stimulating learning climate is simply more difficult to achieve in often more formal online courses, unless specific attention is paid to support informal sharing and for example blowing off steam like you normally can during a coffee break or in between sessions with a peer walking from A to B. Whilst some may argue though that this is a 'nice to have' issue in these extraordinary circumstances, as the IC is just a starting point of being involved in teaching ATLS and the ATLS Instructor Family, SEAB considers this an important aspect of the IC and it needs to be managed differently in the virtual environment and tailored to your local context.

Recommendations to optimize learning:

- Ask a VIP (for example, Region Chief, National Medical Director) to make a short clip to emphasize how important it is that candidates by their willingness to participate in the IC have shown they are willing to become part of the ATLS Teaching Community, how valued this role is for teaching young colleagues how to provide optimal patient care especially in these demanding times.
- Invite participants to make a short video clip where they introduce themselves and that is shared before the IC with the invitation to all to 'meet your peers' before you dive into the course where there might not be time to get to know each other fully.
- Have faculty members call students a week before the course to welcome them, explain how the course will be run, share any thoughts or queries.
- Use coffee-breaks for informal chat, exchanging experiences and expectations – which can also be done online.