

In-Person Education And COVID

The Coronavirus has had a huge impact on education at all levels. Secondary schools across the country closed their doors and moved to online education, with mixed success. Colleges did the same, and the online format worked a bit better at this level.

But there is education outside of secondary school and college. **Nearly every trauma professional is required to maintain one or more types of certification.** These include ACLS, BLS, ATLS, PALS, and many other acronyms. And in many states, the trauma system requires that clinicians provide evidence of these skills to remain in practice.

Thankfully, verifying and designating authorities have temporarily relaxed many of these requirements or granted extensions. The hope is that “things will eventually return to normal.”

Unfortunately, this does not appear poised to happen any time soon. In the meantime, there is a very real need for legitimate educational activities and courses. This is particularly true for new practitioners, as they lay the foundation of their professional skill set.

So what to do? Our trauma center has traditionally offered the Advanced Trauma Life Support course (ATLS) to new incoming residents who will be participating on the trauma team. We believe that this is a

TRAUMA CONFERENCES

THE VAST MAJORITY OF TRAUMA MEETINGS, SYMPOSIA, AND CONFERENCES HAVE BEEN CANCELLED. I AM EXCITED TO SAY THAT A FEW ARE MOVING FORWARD WITH THEIR PLANS, PROVIDING VALUABLE CONFERENCES IN AN ELECTRONIC FORMAT. THESE INCLUDE LARGE MEETING HELD BY THE AMERICAN COLLEGE OF SURGEONS, AS WELL AS THE AAST.

HERE ARE TWO CONFERENCES THAT I WILL BE SPEAKING AT BY TELEPRESENCE. CHECK THEM OUT AND SAY HELLO WHEN YOU SIGN IN!

EXCELLENCE IN TRAUMA CARE (VIRTUAL)
13.5 AMA PRA CATEGORY 1 CREDITS
INTERMOUNTAIN HEALTHCARE
SALT LAKE CITY, UT
SEPTEMBER 17-18, 2020
[HTTP://BIT.LY/VETCC2020](http://bit.ly/VETCC2020)

STORMONT VAIL TRAUMA SYMPOSIUM (VIRTUAL)
TOPEKA, KS
OCTOBER 16, 2020
MEETING INFO LINK TBA

very valuable part of their education, and decided to provide the course while staying within all recommended (and other common sense) guidelines.

I'm going to detail our experience here so other programs can follow suit. The key is to maintain safety without sacrificing educational quality. In this newsletter, I will review the planning that went into producing this “new” course. I'll describe the equipment we used and how we actually executed the program. Finally, I will critique how it went, discussing the evaluations received and impressions of the faculty.

The Planning Phase

This was the most important part of the process. We had to think about which type of course to produce. That would determine the preliminary course schedule and our selection of the physical layout and hardware needed.

INSIDE THIS ISSUE

- 1 **In-Person Education And COVID**
- 1 **The Planning Phase**
- 2 **The Equipment**
- 3 **Execution**
- 4 **Post-Course Evaluation**
- 4 **Disclaimer**

ATLS 10th edition allows for a special hybrid course which relies heavily on student preparation at home. This course is shorter than the full course and mainly focuses on skills stations and testing.

Unfortunately, it requires special dispensation from the ACS ATLS office in Chicago and must be requested far in advance. We did not realize this and inquired too late. So we selected a standard two-day course.

Next, we needed to familiarize ourselves with national, state, and our health system's guidance on how to safely conduct in-person education. US CDC guidelines can be found here:

<https://bit.ly/2C2i7ST>

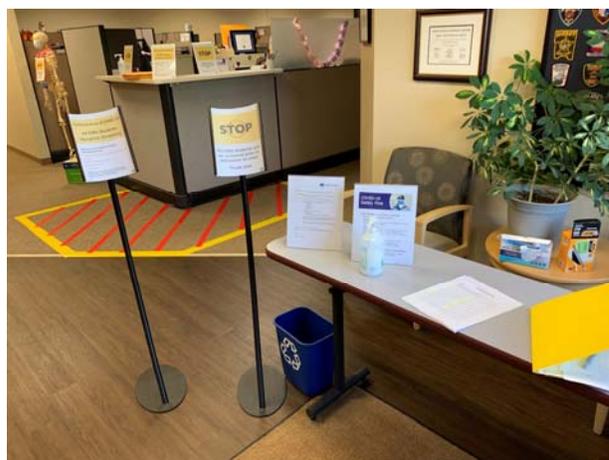
Next, we browsed State of Minnesota and HealthPartners requirements, which were a bit different from the CDC, but we believed the organization's and state's superseded the national guidelines. Basically, we adopted the most restrictive requirements of the three. Here are some of the restrictions we needed to consider:

- Basic COVID screening of all students and faculty
- Masks in place at all times
- No more than 10 people were housed in a conference room, with social distancing practiced at all times
- Since the basic ATLS course involves 16 students, two separate classrooms with 8 students each were required
- Lectures and discussions were provided by WebEx conferencing into both rooms
- No shared food or beverage was allowed; box lunches and individual drinks were provided
- Skills stations were conducted in a smaller room with four students and an instructor. This required us to reduce exposure time.
- Skills stations were split into two 15-minute segments, as opposed to one 30-minute session each. All content was provided, just broken into two sequential segments in different rooms with different instructors.
- All equipment was disinfected after each use
- For initial assessment testing, the critique student did not assist with the evaluation. They watched and critiqued.

Here are some photos illustrating the changes that we implemented.



This sign was posted on the outside door of the facility. Six-foot markers were placed on the sidewalk to encourage social distancing while waiting to register.



The registration station with thermometer, sanitizer, and instructions.



One of two 8-person conference rooms with distancing and boxed food. The screen shows video from both conference rooms and the instructor during breaks. It shows the ATLS slides during lectures.

The Equipment

The main challenge for this course was providing the didactic / discussion portions to two separate conference rooms. We accomplished this using a studio located at our training facility, in conjunction with a web-based teleconferencing product, Cisco WebEx.



The studio is well-equipped, with a green screen, control console for the presenter, and camera with teleprompter for displaying slides.



The final piece was setting up the skills stations. Smaller rooms were used, and our usual trauma mannequins and ATLS demonstration equipment were assembled. A maximum of four students and one instructor could be in the room for 15 minutes at a time. There's lots of space, and care is taken to keep everything clean.



Note the monitor on the right. It shows a view of both conference rooms, as well as the slide being displayed. The instructor wears an earpiece that feeds audio from both rooms into their ear. The boom microphone overhead lets the instructor converse with the students in both rooms.

There is also a control room which shows the activity across all cameras. It is located between two of the skills station rooms, with one-way glass looking into them. This allows the course director to monitor the students and instructor performance in these rooms.



A typical skills station / initial assessment testing room.

Execution

Now it's showtime!

The ATLS course coordinator and our EMS Education Supervisor worked diligently to register all the students, ensure that they received their course materials on time, and strongly encouraged them to prepare well in advance of the course day.

Once the students arrived on course day, they were shuttled to one of the two conference rooms where everyone was sanitized and seated. They were given an orientation to the new format and some breakfast.

The course director kicked off the course from the studio, going through the usual course director content. Next up was a hands-on run-through of the initial assessment skills station. The rest of the day alternated between thirty-minute lecture/discussion sessions from the studio, and small groups in the skills stations. The latter were typically split into two-fifteen minute segments given by different instructors in a different room.

Lunch was served at the usual time while the course director reviewed the written tests. After more stations, there was time for Q&A and comments from the students as the course adjourned at the end of day 1.

Day 2 was more of the same. After breakfast, the course director reviewed the triage scenarios and delivered the required definitive care lecture / discussion. The remainder of the morning consisted of finishing the various lectures and skills stations. This was followed by the initial assessment skills testing, and finally, the written test.

These new doctors finished at the end of Friday, and got to go home and rest over the weekend. Monday, they all began their three-year stint as emergency medicine residents.

Post-Course Evaluation

Any time you try something new, it creates a bit of anxiety for all involved. Luckily, I had a wonderful, talented coordinator, education supervisor, and staff that embraced the format. The instructors were willing to roll with the punches and give it a shot as well.

And whenever technology is involved, there is always the opportunity for something to go horribly wrong. Fortunately, that did not happen. **This time.**

The proof, though, is in the pudding. What did the students think? Of course, they had no idea we were doing something as radically different as we were. But universally, the course, the format, and the instructors were given high marks by the students.

In a typical ATLS course, and especially in those involving first-timers, there are a few written test fails. And every few courses, there is an initial assessment scenario retake.

But not this time. Everyone passed the written test, and all did well on the initial assessment scenarios. The instructors were very impressed with the quality of the initial assessments performed. They were far better than our experience with the standard ATLS format.

The only downside, in my opinion, was the quality of the interaction between instructor and students in the lecture / discussion modules. There is a layer of insulation between us when speaking from an isolated studio. Yes, I could talk and listen, but the nuances of being able to see the students' faces and read their body language was entirely absent. This diminished my ability to gauge their comprehension, adjust the content, or solicit questions.

But it was an excellent experience for all, and I believe that the students got a quality educational product. It may have been even better and more effective than the usual format due to the thought, effort, and commitment of all involved. What's next? Holo-ATLS?

Disclaimer

The American College of Surgeons ATLS Program has not yet modified the course to meet the limitations of the COVID age. Hence, our format is not officially sanctioned by the ATLS office. We made every effort to hold to the exact sequence and content of the original course. Hopefully, ACS will adapt the course, and perhaps use some of the innovations that we are pioneering.

If you would like a copy of our organizational education guidelines and the course schedule, please email me at:

info@TraumaMedEd.com



www.TheTraumaPro.com



[@regionstrauma](https://twitter.com/@regionstrauma)



www.Linkedin.com/in/MichaelMcGonigal



[Michael.D.McGonigal](https://www.skype.com/people/Michael.D.McGonigal)