

Reflections on VAST Prince George, B.C. 8-11 November 2018

Prince George in November: crisp air, snow-covered ground crunching underfoot, evergreens, bright red berries and unique light – soft, almost mystical, with dramatic pinks and blues in the late afternoon. Nighttime moose encounters are a threat to drivers, who choose robust high-set trucks for safety.

Prince George is a hub for northern British Columbia. Fourteen years ago, the University of British Columbia established the Prince George medical school campus with the goal of preparing future doctors to serve in rural and northern communities. Previously, students trained in Vancouver and accustomed to the big city context they rarely returned to the north. Now they learn in a setting that reflects the local needs. Trainees are often placed for extended periods in communities further afield, in small family practices in the interior and north. It was a rare and pleasant surprise to hear learners say their career aspiration is rural family medicine. We have come to Prince George to teach the Vital Anesthesia Simulation Training (VAST) Course.

Simulation-based health professional education is widespread in high-resource settings, but it typically requires expensive mannequins, a simulation laboratory and technical expertise to run the equipment. The innovation of VAST is to create high quality, authentic clinical scenarios with simple technology, minimal equipment and human actors. The scenarios feel quite real and require learners to respond accordingly. Course participants manage commonly encountered clinical situations (e.g., urgent laparotomy, obstetrics, pediatrics, trauma, pain management) and learn non-technical skills for effective team working. Through simple portable methods, VAST creates an immersive, emotionally charged environment where participants have good “buy in” or credibility. The course is designed to be inter-professional and scalable to learners through fundamental, intermediate and advance levels of many scenarios. After running four VAST Courses in both rural and urban Rwanda, we were eager to explore a completely different context.

Our teaching group comprises Angela (an anesthesiologist and expert who has taught multiple courses around the world, including the recent VAST Course in Nyagatare, Rwanda), Lisa (global health coordinator), Julian (Prince George anesthesiologist and lead for the CASIEF Ethiopia program) and me (Patty, VAST co-author, teacher of VAST in Rwanda and former CASIEF Rwanda program lead). Our goal in offering VAST in Prince George is two-fold: to test VAST in a semi-rural Canadian context and to prepare Julian for facilitating the VAST Course in Addis Abba, Ethiopia in January.

The simulation centre in Prince George is well equipped and the staff are helpful. We had brought the core printed materials: course manuals, handbooks for participants, scenario role-play instruction cards, patient documentation (e.g., vital sign observation charts, anesthesia records, progress notes) and photographs of pathology to be discovered during patient examination. The Prince George simulation centre provided the remainder of the materials and a few simple mannequins. We spent the first two days setting up our workspace and running through scenarios to help Julian become familiar with VAST Course facilitation. This was useful for all of us and essentially offered a dress rehearsal before the learners arrived.

Angela and I had previously experienced VAST in a remote district hospital in Rwanda where the challenges were many: participants had to travel hours in the rain to arrive, people had little capacity in English, a hotel venue with abundant ambient noise and learners with no prior

simulation experience. In contrast, Prince George was easy. The attendees included one anesthesiologist, one anesthesia assistant and four medical students. They arrived on time, fluent in English, with previous simulation experience and a high level of training. We quickly discovered that we could offer the intermediate and advanced levels of many scenarios. Because of everyone's schedules, we condensed the course to two days rather than the usual three-day course. Despite this, we needed to omit little because the learning was smooth and efficient.

The course was received with great enthusiasm and appreciation. Indeed, the learners commented that interacting with simulated patients created much more buy in than they had previously experienced with expensive plastic mannequins. Credibility was such that we nearly had to stop one of them from intubating a colleague!

At the post-course dinner, kindly hosted by Julian and his wife, the learners asked to be involved in future VAST Courses and suggested specific communities they thought would be ideal. One medical student from Yukon thought there would be great value for the course in northern Canada. Others thought the course should be included widely in training programs and run for general practitioners. Our team left Prince George inspired by the value of this course in Canada and keen to implement it widely in both teaching hospitals and more remote settings.

Feedback from course participants (from 2 days)

What you liked:

Very approachable instructors who are very invested in teaching the subject. Trying out some new techniques like bougie intubation is useful.

I felt very welcome and in a safe learning environment. The simulations were very helpful in working on my technical and non-technical skills. The day was very interactive and all questions were welcomed.

Course facilitators were friendly and presented well. Scenarios were interesting and based on real practice of medicine. Nice to have participants at differing levels of training and a mix of medical professions. The presentation on pain was particularly interesting for me and made me think about my own practice.

Good review of management principles at a level that was suitable for me (medical student who has done my anesthesia rotation). I actually did not mind that there was lots of material for the first day, helped everyone to get comfortable etc. before moving in to more difficult simulation scenarios.

The opportunity to practice more simulation. The focus on non-technical skills that is usually less emphasized in medical school curriculum. The wide diversity of cases that were presented.

I liked the pace. Initially, I found the idea of a single team lead with everyone else having designated roles a bit more intimidating as opposed to having a team lead but the entire team is in the dark about the scenario and everyone being expected to contribute equally to planning/actions. However, a safe environment was established and I didn't feel overly concerned about it after doing my first team lead scenario. The team scenarios were a nice addition to change things up and force a more realistic scenario with last minute role allocation etc.

Very interesting simulations that required multifaceted non-technical and technical skills. They made me challenge not only my medical knowledge, but also my communication and collaboration skill set. I think these simulations allowed me to build a better approach and also helped me notice areas for improvement. Safe learning environment. I felt there was great feedback during the debriefing sessions. Paediatric and Obstetric emergencies are always scary and gaining an approach through simulation makes for a more calm and organized situation when it comes to real life.

Our group really came together as a team today. A lot of courses integrate non-technical skills into their objectives, but this was a main focus of VAST. This allowed me a safe place to practice essential non-technical skills such as graded assertiveness, having a systematic approach, and gauging the skill level of your colleagues. Using an actor as the patient made everything so realistic and so simple to replicate in a low resource setting. At one point, just before the scenario ended, I was a little startled when I turned around to intubate the patient and remembered that it was another participant and not a patient or a mannequin that I actually could intubate! The use of actors and specific roles in the scenarios allowed for real-life issues and challenges to be played out in Simulation such as having too many cooks in the kitchen, distractions and interpersonal conflicts. Addressing these issues in a safe environment would be an incredibly valuable learning and development exercise for any healthcare team.

More focus on simulation. Opportunity for medical teaching as well. Team based simulation cases.

Great high-yield SIM cases. Nice progression from previous day

I think this is a great course and it has a lot of potential to be very useful for small community hospitals/medical clinics.

Was great working with all of you!

Really well done, I really enjoyed this course and feel honored to be part of the first group of Canadians to have the opportunity to take this course. I think that healthcare teams across Canada could benefit from the non-technical skills developed in this course and I really hope to see VAST continue to grow both nationally and internationally.

Thanks. It was a great weekend!

Suggestions for improvement:

None x 2

Course is great for medical students and nursing students in Canada but may need modifications for Anesthesiologists and experienced nurses. I wondered if the material was too simple for the more experienced providers in the room, so I would be curious as to what their feedback was regarding this.

I know this was attempted but continue to work on have a more interdisciplinary group of individuals.

If you have a very experienced group, you may want to skim through some of the technical review. 2 days seemed sufficient for me to get a lot out of the course, so I would recommend two days which would make it much easier to deliver in Canada (over a weekend).

Possibly allow for more flexibility within non-leader roles.

Can consider grouping less experienced learners in pairs when they first lead cases. Very group-dependent.

Important take away messages:

Finding cognitive aids that help me in crisis situations

I need to continually think about improving my non-technical skills

The basic review of technical skills was very useful, as was learning about the ANTS system.

Be assertive and maintain situational awareness.

Situational awareness, clarifying roles, summarize, prioritize, call for help, systemic approach, and resource allocation.

The most important messages that I will take away from this day are having a systematic approach, summarizing early and often, and asking for input from colleagues. In the future when I am leading crisis situations, I will remember the importance of introducing myself and knowing the names and roles of the people on my team, as well as the importance of maintaining control of the chaos.

Closed-loop communication and pre-surgical checklist.

Utility of SIM training in rural, low-volume centers

Photos

