



VITAL ANAESTHESIA SIMULATION TRAINING

VAST Course report – Kabutare, Southern Province, RWANDA

21-23 September 2019

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Executive summary

Contents

Supporters

The course Directors gratefully acknowledge support by:
Ministry of Health, Rwanda
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Rwanda Society of Anesthesiologists (RSA)
Canadian Anesthesiologists' Society International Education Foundation (CASIEF)
Department of Anesthesia, Pain Management and Perioperative Medicine, Dalhousie University

Situation

The course was held in the new and multiple usage center, Kabutare DH. The hospital kindly supported us with missing equipment: stretchers, IV poles and sheets. The remaining materials are ones donated by CASIEF and Dalhousie University.

Food and refreshments were provided by CREDO Hotel, the closest to the Hospital.

Our simulation coordinator Laurence Mizero did a great job in setting scenarios and was with a new assistant, Brune Henriette, Anesthetist (NPA) from RMH.

The Vital Anesthesia Simulation Training (VAST) course happened successfully at Kabutare District hospital (DH) with a total of thirteen participants from different clinical background. Eight of them came from Kabutare DH and five came from The University Teaching Hospital of Butare (CHUB).

Background

The Vital Anaesthesia Simulation Training (VAST) Course was developed to teach and reinforce essential clinical practices and non-technical skills for both anesthesia providers and perioperative teams. Designed as a collaboration between Dalhousie University and the University of Rwanda, VAST equips anesthesia providers, as well as surgical, nursing, and medical colleagues, with critical non-technical skills required in the most common clinical cases found in low-resource district hospitals. The course utilizes immersive, low-cost simulation focusing on safe anesthesia and resuscitation for obstetrics, pediatrics, trauma, general surgery, and pre- and post-operative care. In addition to role-play in 15 simulated scenarios, there are targeted case-based discussions and skills stations covering non-technical skills, trauma primary survey, difficult airway management, neonatal resuscitation, pain management, and complex decision-making. The course is designed to be portable, locally adaptable, and affordable. It relies on low-cost simulation that is nonetheless highly effective at demonstrating and reinforcing critical non-technical skills in the operative and clinical setting.

VAST at Kabutare being particularly run by only local facilitators was the ninth one built upon a well-established foundation for the VAST Course in Rwanda. The course was first piloted three times in Rwanda in January 2018. After minor revisions, VAST was again delivered in Aug-Sep 2018 at Nyagatare, Rwanda Military Hospital and Huye (twice). VAST was also delivered for the eighth time at Rwamagana this year. Courses were accompanied by the VAST Facilitator Course, with the goal of building a cadre of Rwandan anesthesiologists, anesthesia residents, and non-physician anesthetists capable of high-quality course delivery and debriefing.

Assessment

The first day was challenging for all participants because VAST was almost a new concept for them. Some strategies were used to help participants to understand the concept. The course was delivered in English and Kinyarwanda with slides in English, participants were encouraged to ask and express themselves in different languages (Kinyarwanda, French and English). As many of them had difficulty to understand the cards' notes, we took enough time to explain how to play a scenario.

Explanation during role playing and giving enough time for debriefing brought a big satisfaction and helped participants to understand the VAST concept. Flexibility to timing and starting time especially on the first day did not allow us to cover 1.7 and 1.9 scenarios, which we omitted. We also combined 3.6 and 3.7 scenarios to redeem time.

Coming late was a problem for participants obviously due to combining their daily duties (ward round, morning handover) with the training; we had to reduce break times to finish with 30 minutes delay.

The majority of participants expressed a high degree of satisfaction (see Appendix1). Simulation being a new concept for most of them, they requested to get more sessions to understand it well and to get familiar to it. Participants also wished to see this course be delivered to all medical professionals to reinforce teamwork.

Recommendations

- It is obvious to have participants attending the course, but not fully released from duties. The Course director should consider contact and give enough briefing to the hospital Director prior to the course and emphasize the importance of full attendance on time at the course. We may also consider running the course with a very few participants who are totally free from duties.
- Would we also consider a short interview in English prior to be recruited for the course? A kind of test can be given to participants few days before the beginning of the course. This is to ensure that the participants will be able to catch the message. It would be ideal to move fast with an adequate good number of people.
- We would also consider delivering VAST twice at one place possibly with the same participants to ensure that they understand non-technical skills.
- Organising as many VAST courses as possible in District hospitals to reach staff in remote regions (South, East, West and North) in Rwanda.
- More trainings and facilitations are definitely needed to help implementing teamwork and effective communication in the culture.

Appendix 1 – Participant evaluations

List of things liked by participants	
Venue and organisation	Catering 1 Timing and good organisation 5
Facilitators	Very active facilitation 3 Facilitator knowledgeable and welcoming participants 4 Open facilitator 1
Type of teaching(simulation based)	Simulation 11 Interactive 4
Course content	Non technical skills 13 Course materilas 8 Management of difficult airway Stress management and prioritization 2 Pain management Neonatal resuscitation 1 Approach of Critical patient ABCDE 6 Burn out 2 AMPLE history 1 Sepsispost c/s management PPH post C/S management Pediatric Burn management 3 Trauma management 4
Other comments	Learn to improve service offered toClients (patients)

Suggestions for improvement	
More session of VAST	Session organised in our institution Practice and explanation/more groups Improving on starting time and keeping time More time for scenario and more days Talk on all resuscitation cases in general (near drowning..)
Facilitating transport	Money (motivation)3

Take home messages	
Non technical skills	Team work 8 Good communication 3 Task allocation 1 Leadership 1 Decision making 3 Call for help 1 Situation awareness 2
Changing daily activities	Daily practice in our medical field 2 Training every medical professional 4
Clinical knowledge	Indication of anesthesia (general anesthesia and spinal anesthesia) Anaphylactic shock and different stages Good preparation(materials) 2 AMPLE history/ABCDE approach 1 Burn out 4

Other comments

- Train other health providers (nurses, doctors, anesthesia providers, midwives)
- VAST is very good training and must be extended for every medical practitioners.
- Found resources for participants transport
- We need you to check and do new training

Appendix II: Course facilitators and participants

COURSE FACILITATORS (HUYE, SOUTH, RWANDA, AUGUST, 2019)		
Dr Mukwesi Christian		Course Director
Dr Gaston Nyirigira		Course Coordinator
Dr Alain Irakoze		Facilitator
Dr Joseph Niyitegeka		Facilitator
Dr Jackson Kwizera		Trainee Facilitator
Dr Jean Paul Nvukiyehe		Trainee Facilitator
Mrs Brune Henriette Musabe		Trainee Facilitator
Laurence Mizero		Simulation Coordinator

COURSE PARTICIPANTS (HUYE, SOUTH, RWANDA, AUGUST 2019)		
Last Name	First Name	Role
NDAHIRO	Emmanuel	Anesthesia
UWIZEYEMUNGU	Antoine	Anesthesia
HAKIZIMANA	François -Xavier	Anesthesia
UWIMANISHAKA	Pacifique	Anesthesia
NDAYISENGA	Albert	Nurse
GASHAKAMBA	Caleb	Anesthesia
MUHORAKEYE	Jeanne	Anesthesia
MUTIJIMA	Christophe	Nurse
Dr UWAMAHORO	Evelyne	Medical Doctor
Dr MATABISHI NSHONJA	Jean	Medical Doctor
NIYONSABA	Valerie	Midwife
NDAYISANGA	Ismael	Nurse
KUBWIMANA	John Peter	Nurse

Appendix III – Course Photos







































