



VITAL ANAESTHESIA SIMULATION TRAINING

VAST and ACLS refresher courses report

Kibagaba, Masaka, and Kiziguro, Rwanda

01st/09/2022 – 05th/09/2022

Organization team:

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Executive summary

Situation

The Vital Anesthesia Simulation Training (VAST) and Advanced Cardiac Life Support (ACLS) refresher course has been successfully conducted at Kibagabaga, Masaka, and Kiziguro District Hospitals. All 48 participants completed the refresher course and study scenarios.

Background

There are ongoing efforts by the Initiative for Medical Equity and Global Health and its partners including the VAST Ltd organization to improve resuscitation capacity and the quality of anesthesia care in district hospitals in Rwanda. Participants' satisfaction and improvement were key signs of successful conduct of the VAST/ACLS course at these 3 district hospitals.

Assessment

Participants reported that they gained more confidence and skills in resuscitation and they were engaged in implementing lessons learned to improve the quality of resuscitation and anesthesia practice at these 3 District Hospitals.

Recommendation

- Implement the lessons learned in clinical practice by initiating the rapid response team
- Ensure availability of resuscitation team, guidelines and equipment/supplies within all departments
- Measure the quality of resuscitation and outcomes to evaluate the ongoing improvements
- Organize recommended Advanced Cardiorespiratory Life Support and VAST courses for all clinical staff every 2 years

Acknowledgments

This activity was supported in part by a grant from the ANZCA Research Foundation, Australian and New Zealand College of Anaesthetists.

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Background

In a collaboration between Dalhousie University and the University of Rwanda Departments of Anesthesiology, VAST was developed to teach and reinforce essential clinical skills and non-technical skills for perioperative teams including surgeons, anesthesia providers and nurses. The course content is based on common challenging situations found in the low resource district hospital.

To make it happen, VAST utilizes active teaching methodologies including group discussion and low-cost simulation. The clinical focus is on safe anesthesia, pain management and resuscitation in scenarios spanning obstetrics, pediatrics, trauma, pre- and post-operative care.

VAST is adapted to the local context of resource limited healthcare. Participants are encouraged to use teamwork and decision making to solve problems using the typical resources found in district hospitals.

This time, the refresher course at Kibagabaga, Masaka and Kiziguro hospitals was done to evaluate the retention of skills of the VAST/ACLS courses conducted in June 2022.

Course facilitators and participants

Course facilitators

Name	Professional role	Course role	Institution
SENEZA Celestin	Anesthesiologist	Course director	Kibagabaga DH
KWIZERA N Jackson	Anesthesiologist	Instructor	Kibogora DH
UZAMUKUNDA Claudine	Anesthesiologist	Facilitator	CHUK
MIZERO Laurence	Sim coordinator	Sim facilitator	UR

Venue and Equipment

The courses were conducted at Kibagabaga district hospital, Masaka district hospital, and East Gate Hotel (for Kiziguro District Hospital). Catering services for breakfast, lunch, and afternoon tea were provided by Le POETE Ltd for courses in Kigali (Kibagabaga and Masaka). Kiziguro District Hospital arranged the venue of the courses at East Gate Hotel through their existing collaboration.

We used one VAST kit with all needed equipment except two stretchers and sheets which were provided by the hosting hospitals.

The additional resuscitation mannequin for ACLS part were provided by the IMEGH Ltd.

Course conduct

The ACLS and VAST refresher course was held at Kibagabaga District Hospital, Maska District Hospital, and East Gate hotel (for Kiziguro district hospital staff) with the purpose to reinforce skills learned during the initial VAST/ACLS courses in June 2022.

The refresher course was conducted for 1 day for each site: 1st September 2022 (Kibagabaga), 3rd September 2022 (Masaka), and 5th September, 2022 (Kiziguro).

In addition, the study scenarios were conducted successfully as planned to evaluate the retention of skills after the initial VAST/ACLS courses conducted in June 2022. All 48 completed the study scenarios.

Based on our experience with the first phase this project we kept our flexibility to allow participants to express themselves in different languages accepted in Rwanda (Kinyarwanda, French, and English).

Participants had an opportunity to ask questions and to discuss ways they will implement changes necessary to improve their resuscitation practice. The main topics discussed can be accessed on the attached schedule.

Challenges and lessons learnt

- Starting time has been an issue for participants specifically due to combining their daily duties (ward round, morning handover) with the training especially for onsite courses (Kibagabaga and Masaka).
- There was an overall improvement in leadership and teamwork skills for most of participants. In addition, participants were more confident in leading a resuscitation team, however, they recognize a need of training of more staff and availability of more resources.

Future directions

- Implement the lessons learned in clinical practice by initiating the rapid response team
- Ensure availability of resuscitation team, guidelines, and equipment/supplies within all departments
- Measure the quality of resuscitation and outcomes to evaluate the ongoing improvements
- Organize recommended Advanced Cardiorespiratory Life Support and VAST courses for all clinical staff every 2 years

Appendices

Appendix I– ACLS-VAST Refresher course schedule

<i>Time</i>	<i>Session</i>	<i>Faculty</i>
0745-0800	Registration	Dr Celestin
0800-0815	Orientation and Welcome	Dr Celestin
0815-0900	ACLS: Systems of Care and Team Dynamics	Dr Claudine
0900-0930	ACLS: Cardiac arrest/PEA	Dr Claudine
0930-1000	VAST: Non-technical skills	Dr Jackson
1000-1030	Morning tea	
1030-1115	VAST: Crisis Resource Management	Dr Jackson
1115-1200	VAST: Action items & Commitment to change and final reflection	Dr Jackson
1200-1300	Lunch	
1300-1400	Interview	Dr Eugene, Dr Skelton, and Dr Celestin
1400-1430	End of day evaluation and Photo	Dr Celestin
1430-1500	Facilitator debrief	Dr Celestin

Appendix II – Course photos



Dr Celestin, the course facilitator giving a refresher session at Kibagabaga



All about the three boxes, A,B and C



Prebrief session about simulation with Dr Claudine



Masaka Hospital team after the course



VAST/ACLS refresher course session for Kiziguro Hospital team (East Gate Hotel)

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