



VITAL ANAESTHESIA SIMULATION TRAINING

**VAST Course, BVDUMC, Pune, India.
3rd November 2023 to 5th November 2023**



Executive summary

Situation

At the request of local leads, Kalyani Patil and Jui Lagoo, the Vital Anaesthesia Simulation Training (VAST) Course was organised by the Department of Anaesthesia in association with the Department of Simulation at Bharati Vidyapeeth (Deemed to be University) Medical College, Pune, India with the objective of empowering Perioperative team at our institute.

Background

The VAST Course was designed to train perioperative teams comprising of anaesthesia providers, surgeons, nurses, OT technicians and trainees in safe patient care practices. The training program has a strong focus on non-technical skills. VAST was first piloted in 2018. Since then, VAST's courses have been offered in multiple countries worldwide.

Assessment

The course was well received and appreciated with enthusiasm and active participation by the participants. Conduct of the course was a great learning experience for facilitators and coordinators.

Recommendations

We highly recommend that the participants should complete VC and then enroll for a dedicated VAST FC to ensure the quality of course delivery.

We strongly recommend incorporating high fidelity simulation as required by the scenario to enhance realism and immersion by participants **depending on the availability**. (We perfectly appreciate the design of VC for resource limited settings)

Use of locally available resources such as Tablets with Simpl app should be considered as it was highly appreciated by all.

Acknowledgements

Thank you to the VAST foundation for the partial financial support covering fees of external facilitators!

A genuine gratitude towards management of BVDUMC, Pune for the wholehearted support for conducting the course!

Attendees

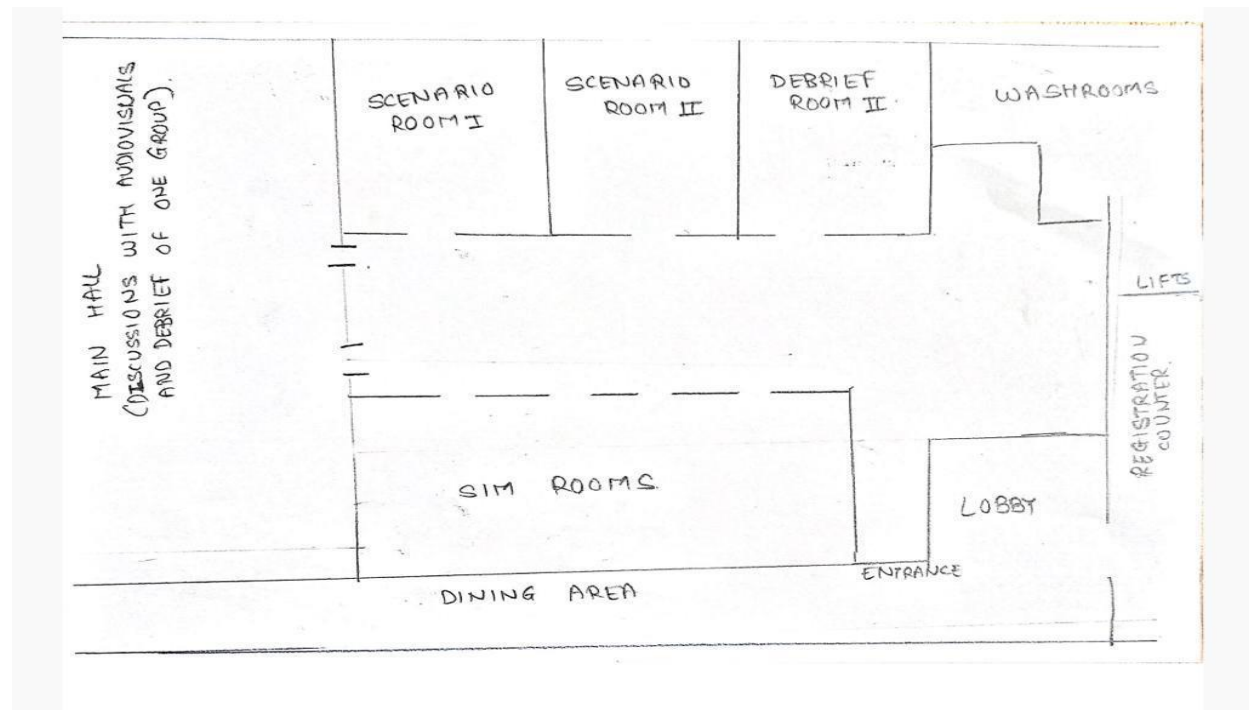
VAST Course			
Name	Professional role	Course role	Workplace
Vaibhavi Upadhye	Anaesthesiologist	Instructor	Pune
Jui Lagoo	Anaesthesiologist	Local lead & facilitator	Pune
Kalyani Patil	Anaesthesiologist	Local lead & facilitator	Pune
Rijuta Pradhan	Anaesthesiologist	Facilitator	Pune
Sheetal Dixit	Anaesthesiologist	Facilitator	Pune
Preeti Pandey	Sim Lab staff	Simulation coordinator	Pune
Jyoti Pawar	Sim Lab staff	Simulation coordinator	Pune
Shubhada Aphale	Anaesthesiologist	Participant	Pune
Varshali Keniya	Anaesthesiologist	Participant	Pune
Pradnya Bhalerao	Anaesthesiologist	Participant	Pune
Abhay Sancheti	Anaesthesiologist	Participant	Pune
Vijayalakshmi Biradar	Anaesthesiologist	Participant	Pune
Neha Modani	Anaesthesiologist	Participant	Pune
Geetha Acharya	Anaesthesiologist	Participant	Pune
Sujit Kshirsagar	Anaesthesiologist	Participant	Pune
Parvati Kamble	Nurse	Participant	Pune
Mayura Devange	Nurse	Participant	Pune
Shobha Mahamuni	Nurse	Participant	Pune
Bharati Yadav	Nurse	Participant	Pune
Pradeep Shinde	OT technician	Participant	Pune
Sarjerav Desai	OT technician	Participant	Pune
Pravin Borkar	Surgeon	Participant	Pune
Rachana Gaidole	Surgeon	Participant	Pune
Manju Talathi	OBGyn	Participant	Pune
Shrish Raut	OBGyn	Participant	Pune
Abhilasha Handu	Paediatric surgeon	Participant	Pune
Amlan Mohanty	Anaesthesia Trainee	Volunteer	Pune
Nithu Dina Joseph	Anaesthesia Trainee	Volunteer	Pune
Juhi Kilaru	Anaesthesia Trainee	Volunteer	Pune
Manikonda Indu Soubhagya	Anaesthesia Trainee	Volunteer	Pune

Venue and equipment

Venue

The course was conducted at the Simulation Lab, Bharati Vidyapeeth (Deemed to be University) Medical College, Pune, India. Four rooms in the Simulation lab were utilized for the course. The Main Hall housed the common session delivery with audiovisuals. Two rooms had scenario set up and debriefing set up was created in the main hall and the third room. The housekeeping details of restrooms, changing rooms, dining place,

drinking water and fire exits were explained to the participants and faculty. The floor plan is as depicted in the diagram. The entry permission and parking facility were arranged for participants and faculty to allow free access to the venue.



Equipment

All the equipment, consumables and mannequins were arranged by Sim lab.

VAST Course

Preparation

The preparation for the 3 day program (VAST VC) started in May 2023. With the intent of conducting VAST courses at BVDUMC, we completed the VAST FC at Hyderabad. It helped us understand the essence of the course and the logistic requirements. The operation manual was a useful guide for immaculate preparations. We received help from VAST family via Slack for brochure, certificate designing, etc. This support is highly appreciated. Vaibhavi Upadhye as a mentor helped us at every step.

Simulation coordinator training

We identified Preeti Pandey and Jyoti Pawar as Sim coordinators from the in-house Sim lab staff. Their training was started two weeks prior to the course. This included

familiarizing with the content of the course, preparation as per the scenario requirement, practicing technological aspects using Simpl app.

Conduct

The VAST Course was offered to 14 multidisciplinary participants inclusive of anaesthetists, surgeons, nurses and OT technicians. Majority of these healthcare practitioners work together regularly and were able to discuss common challenges and solutions. Each day program included interactive power point-based discussions, skill stations and scenarios.

The skills sessions (difficult airway management, neonatal resuscitation, and primary trauma survey) were all conducted as PowerPoint presentations with concurrent demonstration of skills using mannikins (difficult airway management, neonatal resuscitation) or simulated patients (primary trauma survey). The simplicity of conduct of skill stations was highly appreciated.

The tablets were used along with these demonstrations to show simulated vital signs. Technology was perfect reflecting real-time vital parameters.

Course evaluations and informal feedback

What went well

Real time experience

Involvement of all members involved in perioperative patient care

Realistic scenarios we might face during our daily practice and how to manage crisis situations

Training was very interactive and engaging and practically useful

Well planned interactive sessions

Debriefing

Pain management

Working as a team

Debriefing and finding the challenges

Got to know the idea of fixation.

Pace, communication, debrief points

Enthusiastic, inspiring and soft-spoken facilitators

Experiencing difficult scenarios in OT

Sessions were thoughtfully made and practical where we can carry back and apply in day-to-day practice

Burnout session

Enjoy skill station, trauma care, burns

The attitude while debriefing is of not to be fault finder but to be a learning point

Active participation of everyone

Encouraging nature of all the faculties

Felt realistic about cases management

Very well organised, meticulous time management

Facilitators made sure all were involved

I feel this simulation course helps us to avoid brain fog and act right accordingly at the correct time to avoid errors and complications in patient management

Facilitators were very interactive and made us give our inputs for every scenario

Challenges/ what could have been done differently

Nothing

Use of high fidelity Mannequin

One or two less scenarios in a day

More hands-on training

Brief discussion

Take home messages

Setting protocols and learning algorithms

Involvement of doctors, nurses and technicians in training programmes

Sharing mental model

Proper task management

Introduction to the patient

Avoiding fixation errors

Good communication with team members

Role of team work

Preparing checklists and conducting mock drills for residents and OT staff for crises situations

The team building concept

Team dynamics, Role allocation

Early call for help

Prepare check list for patient shifting to icu

Skill based learning

Nuances of communication

Develop confidence in juniors to communicate and able to break the hierarchy system whenever required

Alertness in Operation room

Be confident

Nurses empowerment

Leadership quality

Helping ourselves to avoid burnout

Proper communication between surgeon and anaesthetist

Learning and repeated upgradation of skills

Making use of existing resources

Task prioritisation

Learn the emergency life-saving procedures.

I will always focus on good things done and scope for improvement in ourselves

Equipment re checking

Action items

- Critical Incident Debriefing
- SOP for massive blood transfusion
- Quick reference handbook for crisis situations

What went well

Warm introductions helped to set the correct mood for the program.

Excellent conduct of NTS game.

The power point-based discussions were interactive throughout the program.

Inputs given by surgeons helped in clear understanding of the surgical perspective and helped to make case-based discussions fruitful.

Participation by senior members helpful in carrying it forward in the department.

Participation by senior members helped in having wholesome discussions

Debriefing focused on NTS with minimal need for microteaching

Excellent time management

Technology was perfectly reflecting real-time vital parameters.

Robust learner centric debriefing with facilitator role as a navigator

Reflections of all the 3 days were reassuring

Depersonalization was carried out well during debriefing focusing on events

Communication among participants improved a lot by Day 3

Opportunity for microteaching was utilized well

Daily meta-debriefs were helpful

Challenges and lessons learnt

The major challenge was the budget. This being the first VAST course at our institute, it was a challenge to meet the requirements with the tight budget.

With a limited number of facilitators due to budget constraints and considering the situation of conducting VC alone, in contrast to VC+FC, where the pool of facilitators is huge, the situation was overwhelming.

As the in-house facilitators had defined institutional responsibilities during the routine hours, it involved investment of considerable amount of time beyond working hours.

Strategy to protect self critical lead participant

Performance anxiety especially for participants with experience at two extremes. Support was extended with generalization and sharing experiences.

Conflict situation threatening psychological safety during discussion among participants. The situation was handled by the facilitators by removing the lead participant from the debrief, supporting her psychologically and encouraging other participants to focus on what went well.

The active participation by the concerned participant the following day was reassuring.

Participants expressed feeling less immersed in difficult airway scenario attributed to perceived repetition following skill station with micro-scenarios.

Recommendations

1. Need to devise a plan to generate funding to make the course self-sustaining
2. Technical aspect taken care of by coordinators can help one person to facilitate & debrief while the other facilitator can be cofacilitator.
3. Considering that this is not FC, if the instructor contributes to facilitation & debriefing, it would not be overwhelming.
4. To update the course content as per the latest guidelines (Surviving sepsis guidelines 2021, Role of Carbetocin and tranexamic acid in PPH, discontinuation of methyl dopa in PIH)

Course Photos

Inauguration of VAST BVDUMC, Pune



Simulation coordinators squad!!



The Preparations!



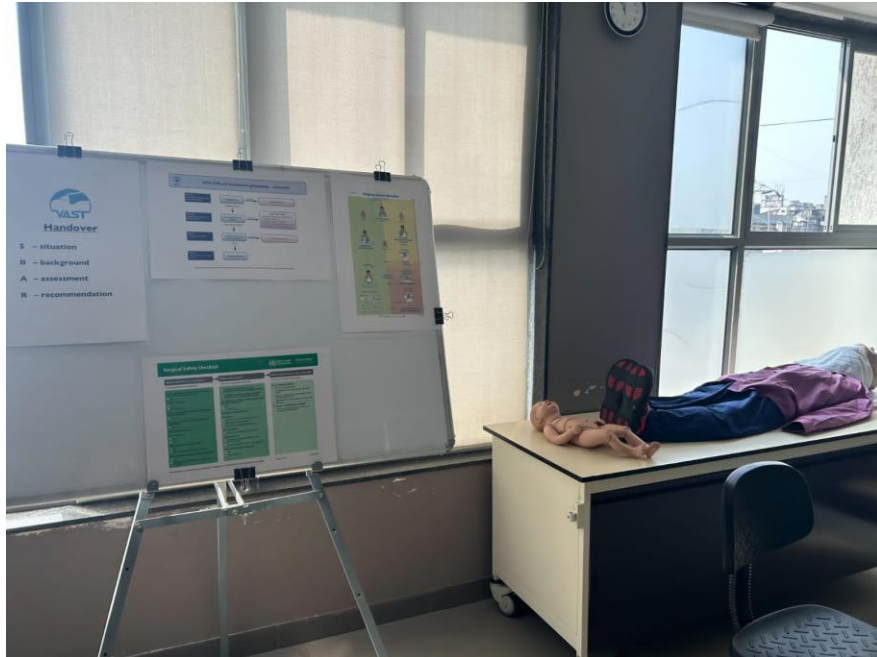


Non-technical skill game!



Scenario set up and prep





Breaking Ice



Interactive discussions!



Skill stations



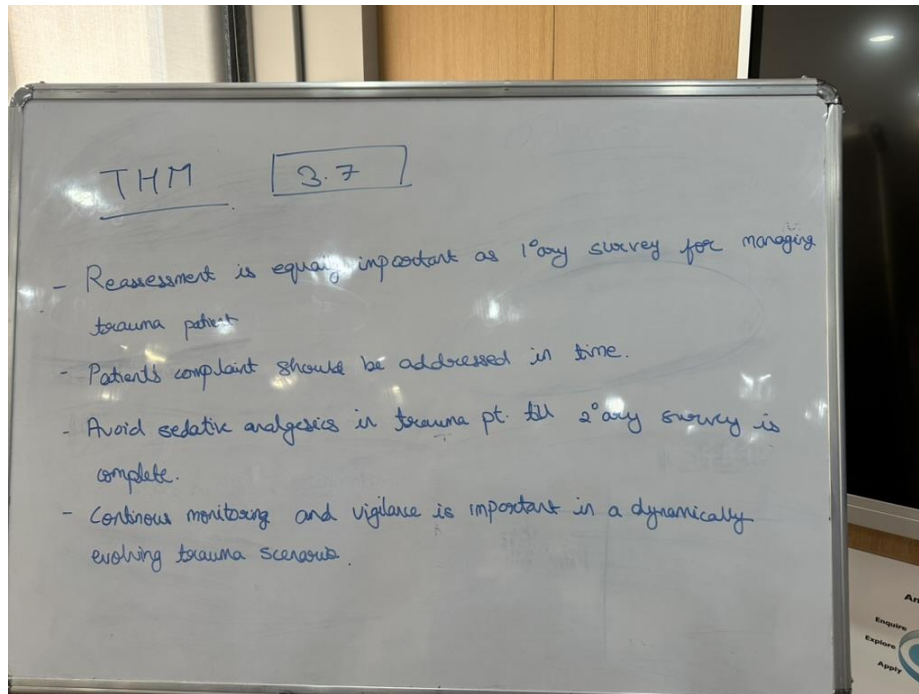
Immersive Scenarios



Debriefing



Take Home Messages



VAST course completion!





THANK YOU!