



VITAL ANAESTHESIA SIMULATION TRAINING

Facilitator Course and VAST Course report

Hyderabad, India

12th to 16th June, 2024

Dr Gita Nath





Executive summary

Situation

The fifth VAST course (VC) in Hyderabad (7th in India) was successfully delivered at the Skill Lab, Osmania Medical College from 14th to 16th June, 2024. This was preceded by a Facilitator Course (FC) on 12th and 13th June 2024.

Background

VAST or Vital Anaesthesia Simulation Training was introduced in 2018 as a collaboration between the anaesthesia department of University of Dalhousie in Halifax and the University of Rwanda; and has been supported by the WFSA. It was introduced into India in 2019, when courses were held in February and July. VAST restarted in 2023 after the COVID hiatus; and to date, 7 courses have been conducted, 4 in Pune and 3 in Hyderabad.

The Indian Association for Vital Anaesthesia Simulation Training (IAVAST) was registered in January 2024, with the objective of conducting further courses with the ultimate aim of improving perioperative outcomes.

VAST uses immersive, low-fidelity simulation and carefully designed scenarios; focusing on anaesthesia and resuscitation for mainly obstetrics, paediatrics and trauma. Post-scenario debriefing and targeted discussions specifically focus on non-technical skills aiming to generate participant-driven take-home messages.

Assessment

Both FC and VC were well-received by the participants. Many of the trainee facilitators had recently done the VC, and they appreciated the different aspects of facilitation included in the VAST course, namely scenario design, running the scenarios and debriefing. They especially liked the structured approach to debriefing using the advocacy-inquiry technique.

The anaesthesia providers doing the VC were all experienced teachers, and were keen on taking back to their workplaces, the VAST style of teaching and learning. We hope that most of them will also join us as VAST facilitators.

Recommendation

To hold further VAST courses in the region as well as in other parts of the country with the help of this hub and spoke model, and to build-up the facilitator pool in Hyderabad and other parts of the country.

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Course background

The VAST course which was developed as a collaborative effort between Dalhousie University, Halifax and the University of Rwanda in 2018, has been conducted over 61 times in 30 countries till June 2023. Since then, we have run 6 more courses in India itself. Following three sets of FC+VC with international faculty, we have now been conducting these courses independently and building a faculty pool in India. Hyderabad and Pune are the two hubs where facilitator courses are conducted. VC are either paired with FC or conducted as stand-alone courses,

VAST uses immersive and engaging training, with low-cost equipment and with minimal technology; but complex clinical situations are brought out through the carefully designed scenarios. The targeted discussions during post-scenario debriefing specifically focus on non-technical skills aiming to generate participant-driven take-home messages. The multi-disciplinary nature of the simulation groups further adds to the reality of the scenarios.

The Indian faculty have now registered an association called IAVAST, which stands for Indian Association for Vital Anaesthesia Simulation Training. IAVAST works in coordination with the parent VAST organization based in Australia, and works with the same principles and ethos.

This report is about the 2-day Facilitator course and 3-day VAST course conducted at the Skill Lab, Osmania Medical College, Hyderabad; from 12th to 16th June 2024. The FC was conducted by local faculty, most of whom had done the FC in 2019 and also attended a VAST Instructor course in Rwanda, in 2022. For the VC, the faculty also included those who did the FC with us in 2023.

Acknowledgements

Our deepest gratitude to Dr Adam Mossenson for his help and advice at every stage of our journey!

Our sincere thanks also to the World Federation of Societies of Anaesthesiologists (WFSA) for their continued support for this project.

Faculty and attendees

Faculty:

- Dr Gita Nath, Specialist Anaesthesiologist, President, IAVAST
- Dr Sailaja Kamabathula, Specialist Anaesthesiologist, Secretary IAVAST
- Dr Vibhavari Naik, Specialist Anaesthesiologist, Vice President IAVAST
- Dr Vijayanand Basuthkar, Emergency Physician, Treasurer, IAVAST
- Dr Basanth Rayani, Specialist Anaesthesiologist, Joint Secretary IAVAST
- Dr Sushma Konduri, Specialist Anaesthesiologist, Member IAVAST

FACILITATOR COURSE			
Name	Professional role	Role in course	Workplace
Dr Gita Nath	Specialist Anaesthesiologist	Course director and Instructor	Hyderabad
Dr Sailaja Kamabathula	Specialist Anaesthesiologist	Instructor	Hyderabad
Dr Vibhavari Naik	Specialist Anaesthesiologist	Instructor	Hyderabad
Dr Vijayanand Basuthkar	Emergency Physician	Instructor	Hyderabad
Dr Srilata Moningi	Specialist Anaesthesiologist	Trainee Facilitator	Hyderabad
Dr Monica Chhikara	Specialist Anaesthesiologist	Trainee Facilitator	Hyderabad
Dr Nitya Reddy R	Specialist Anaesthesiologist	Trainee Facilitator	Hyderabad
Dr Shailaja Ganti	Specialist Anaesthesiologist	Trainee Facilitator	Hyderabad
Dr Lavanya Voomidisingh	Specialist Anaesthesiologist	Trainee Facilitator	Hyderabad
Dr Sunil Kumar	Specialist Anaesthesiologist	Trainee Facilitator	Jagtial

Dr Uma Maskeri	Specialist Anaesthesiologist	Trainee Facilitator	Mumbai
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VAST COURSE			
Name	Professional role	Role in course	Workplace
Dr Anita Shirley	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Soma Ganesh Raja	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Gayatri Sasikumar	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Sandeep Viyyuri	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Subbulakshmi Sundaram	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Shruthi Beesam	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Priyanka Potluru	Specialist Anaesthesiologist	Participant	Hyderabad
Dr Vandana Pakhare	Specialist Anaesthesiologist	Participant	Rohtak
Dr Asna Syeda Shireen Munawer	Emergency Physician	Participant	
Dr Ratna	Obstetrician	Participant	Hyderabad
Dr Sindhu	Obstetrician	Participant	Hyderabad
Ms Rakesh M (Day 1)	Anaesthesia Technician	Participant	Hyderabad
Ms Anitha (Day 1)	Nurse	Participant	Hyderabad
Ms Jesintha (Day 1)	Nurse	Participant	Hyderabad
Ms Sri Chandana M (Day 2)	Anaesthesia Technician	Participant	Hyderabad
Ms Lakshmi Durga (Day 2)	Nurse	Participant	Hyderabad

Ms M Laxmi (Day 2)	Nurse	Participant	Hyderabad
Ms Keethi Reddy (Day 3)	Anaesthesia Technician	Participant	Hyderabad

We had 7 FC participants, 5 from Hyderabad, 1 from Jagtial and 1 from Mumbai. The 3-day VC had 9 participants, of whom 8 were anaesthesia providers and 1 emergency physician. The two obstetricians attended on Day 2; nurses and technicians were present on Days 1&2, and we had only a technician on Day 3. Despite the gaps, the presence of the surgeons, nurses and technicians added an extra dimension to the discussions.

Venue and equipment

The courses were conducted in the Skill Lab, Osmania Medical College, Hyderabad. This was the second time we used this venue – we ran an FC/VC course here in June 2023. The venue is well-equipped with mannequins, airway equipment, trolleys, IV stands and so on. There is a classroom with audio-visual facilities and provision for white marker boards. There are several skill rooms down the corridor, of which we chose two simulation rooms for running scenarios and two other rooms equipped with whiteboards for debriefing.

Lunch and refreshments were conveniently served in the same complex. We ensured that the plates, glasses, and cutlery were all biodegradable. A water dispenser and paper glasses were provided rather than the plastic bottles which are often seen in conferences and workshops.

Equipment for the scenarios consisted of the VAST teaching materials which were left with Dr Nath along with an inventoried list. Simulation mannequins, airway equipment, trolleys, IV stands and so on were supplied from the Skill Lab. We were assisted in setting up and arranging equipment in the sim rooms by Mr Kashiram who works with CIHS and Mr Akhtar and Mr Sampath who are based in the Skill Lab. Mr Kashiram was trained during the course at setting up for the scenarios according to the instructions in the course manual, as part of his future role as sim coordinator. As before, one of the facilitators was allocated the task of setting up for each scenario.

Participant and facilitator handbooks, certificates, feedback forms and time-tables were all printed locally. We also printed a new standee and a banner which can be used in future courses. Instead of VAST ID clips, we used colour-coded name tags – red ribbons for instructors, green ribbons for trainee facilitators and yellow ribbons for the participants. The Crisis Management cognitive aid printouts were placed in the participant handbooks, while the Facilitator cognitive aid for facilitation and debriefing was placed in the facilitator handbooks. We also used the role tags prepared during previous courses to identify the different roles during the scenario. These had black or white ribbons (to separate the two sim groups) and were handed out during role allocation along with the briefing cards.

Conduct of course

Both FC and VC were run according to v2 of the manuals – the VAST FC/IC manual and the VAST course manual respectively.

For the FC, the talks were delivered by the four instructors. An extra talk was included, introducing the VAST FORM for facilitator assessment. Following the demonstration scenario, the first set of scenarios did not include debriefing. The subsequent 3 sets of scenarios included setting up, running the scenario, and debriefing for each other. The last set of scenarios were those which were designed by the trainee facilitators. The trainee facilitators were divided into two groups and were mentored through the four scenario design sessions during the course of the 2 days, at the end of which they ran their respective scenarios for the other group and performed debriefing.

The VC course was run almost true to the v2 of the course manual. The trainee facilitators performed the demo scenario. Considering that most of the attendees were not comfortable with personally performing Front of Neck Access during a difficult airway scenario, we included a short demonstration of the scalpel-bougie-tube technique as recommended by the DAS guidelines. Another change was on Day 2, where we ran scenario 2.8 from v1 because we felt that the participants would relate to this more closely than watching the video presentation.

The trainee facilitators were quite involved in the intricacies of the debriefing process, especially in starting off the conversation with the advocacy-inquiry approach. An instructor sat in for every debriefing session, watching and giving input when required. At the end of the first two days, meta-debriefing was carried out for greater insight into the process of debriefing. The VAST FORM was used to assess the trainee facilitators, giving the instructors a chance to become accustomed to using it.

Summary of evaluations

Facilitator Course:

All the different aspects of learning facilitation were appreciated by the participants, both the technical aspects of setting up, using the Simmon app, running the scenarios; and then learning to debrief.

They liked the step-wise process of scenario design - selecting the topic and learning objectives, correlating the learning objectives to the transition triggers and then refining the scenario and running it. Both the scenarios were of quite good quality and conducted successfully.

The methodical and structured debriefing process was well-received – framing the question using advocacy-inquiry, trying to understand the perspective and thought process of the participant, and guiding the discussion to bring out the learning objectives.

They commented on the quality and dedication of the facilitators, who enabled them to feel safe in sharing their views.

The arrangements of the course including time-keeping were praised, as also the food, including the biriyani and sheer korma on the last day!

There was an issue with the audio quality of the videos and a suggestion to possibly have sub-titles.

VAST Course:

As mentioned earlier, most of the VAST participants were experienced teachers. They liked this type of immersive teaching/learning. They were all enthusiastic and engaged throughout the course and gave very positive feedback.

The clinical frameworks used in the course – AMPLE, ABCDE, SBAR and checklists – all featured in the things they liked. Non-technical skills were repeatedly mentioned in the feedback. The scenarios were felt to be realistic and relevant to real life. They also appreciated the relevance and applicability of the various learning points. The burnout session struck a chord with many of the participants. There were several suggestions that this kind of training should be made more widely available, and that it should be incorporated in post-graduate teaching programmes in their institutes

The organization, arrangements and time-keeping were again appreciated, including the quality of lunch and snacks.

Overall, the participants enjoyed the course and

Feedback from the FC and VC is summarized in Appendix I.

Challenges and lessons learnt

Take home messages:

- The fifth VAST course in Hyderabad (7th in India) was delivered successfully with a very positive response from the participants.
- This was preceded by an FC (3rd in Hyderabad, 5th in India), increasing the pools of VAST facilitators. We now have total of 16 facilitators based in Hyderabad.
- Despite this, availability of facilitators on the last day was challenging.
- Inclusion of anaesthesia technicians in addition to the nurses gave an extra dimension to the discussions.
- Since the course was conducted by local faculty, obviation of travel expenses and collection of registration fees from the participants reduced the financial support needed. However, it was not possible to recompense the facilitators for their time and loss of income.
- Systematic inventory at the end of the last day ensured that nothing was missing from scenario folder

Future directions

Suggestions for future courses:

- Conduct 3-4 VCs per year in Hyderabad and 1-2 FCs.
- Conduct VCs outside Hyderabad in teaching centres as well as district hospitals, to obviate need for participants to travel and enable wider reach for VAST activities
- Increase publicity to spread awareness and attract interested participants
- Consider applying for CME credit points

Appendix I – Participant evaluations

FACILITATOR COURSE

Things they liked	
What they learnt	<p>Learning to conduct a scenario X2</p> <p>Operating the Simmon iPad app</p> <p>Designing a scenario</p> <p>Simulation set up</p> <p>Communication techniques</p> <p>That I gained some skills and was happy with the debriefing I conducted</p>
Debriefing	<p>Art of debriefing in a non-judgemental way X3</p> <p>Debriefing has improved with each and every scenario</p> <p>Choosing the right words for debriefing</p>
Scenario design	<p>The scenario design part was very interesting. Challenging yet fulfilling</p> <p>Framing scenarios</p> <p>Designing the scenario and implementing our own scenario X2</p> <p>Playing out the scenario designed by us</p>
Regarding facilitation	<p>Facilitation practice done in a graded step-wise manner</p> <p>Felt very safe to share views</p> <p>Dedicated team of instructors</p> <p>Well conducted / good training by experienced facilitators</p> <p>Good faculty development programme</p> <p>Good facilitative teaching by instructors</p>
Other aspects	<p>Location and space good</p> <p>That the program started on time, good time management</p> <p>Enjoyed the game</p> <p>Role playing as scenario managers</p> <p>VAST form – that emphasises the importance of feedback</p> <p>Team management</p> <p>Sustainability</p> <p>Simulation training for professional self-improvement in daily practice</p>
Suggestions for improvements	
	<p>Reflections could be done at the end of session</p> <p>There could be a scenario making competition / research purpose</p>
	Videos played could have better acoustics or maybe subtitles
	Time allotted to understand the scenario before facilitation can be increased
	Regular interactive programmes periodically

	Combination of different specialties as facilitators will improve our learning the process of facilitation in a more diverse way
Take away messages	
	Focus on SBAR, AMPLE, ABCDE, SSC for patient safety X2 How to design and facilitate a scenario X3 How to facilitate simulation in resource limited settings
Debriefing	Briefing and debriefing X2 To adjust debriefing as per the culture and behavioural aspects Learnt about advocacy-inquiry Focusing on learner objectives Constructing a proper sentence in debriefing How to manage different people at the time of debriefing
Non-technical skills	Utilise all resources at hand Team work X2 Decision making in crisis
Other THM	Unlearning to learn How to be a good facilitator To train the paramedical staff and surgeons at my place for BLS To conduct OT staff meetings using my skills recently acquired
Other comments	It was intense, but a lot of fun Food good. Dal spicy All instructors were friendly and helpful to make us understand scenarios and debriefing

VAST COURSE

Things they liked	
	Well planned simulation scenarios, wide variety X6
	Good discussion during debriefing X5
	Good breaks and time-keeping X5
	Friendly atmosphere
	Informative, Sharing knowledge and skills X5
	Well organised with all facilities
	Discussions on seldom talked about topics – hierarchy as a barrier in CRM, burnout: how to manage a difficult patient/relative
	Quality of simulations – They are real and possible

	Everyone in the team was made to feel empowered and were enriched with knowledge
	Essential pain management session
Non-technical skills:	Good communication among team members/sharing information X3 Early call for help Patient safety trumps workplace hierarchy in taking life-saving decisions X2 Importance of following protocol / checklist is emphasised Advantages of team work X3 Role allocation Situational awareness is emphasised
Facilitators	Everyone was “all ears” to hear delegates Felt safe and opinions were listened to X4 Learner friendly facilitators There was good judgement (Rather, there was no judgement adversely about participants) X2 Experienced faculty X2
	Everyone is encouraging and making me feel comfortable to express more ideas
Programme	Activities/scenarios were very well-paced between lectures Content of the programme
Systematic approach	AMPLE number of scenarios 😊 Approach to an unstable and bleeding obs patient in OR Emphasis on systematic AMPLE/ABCDE, SBAR X6 Identifying gaps in applications of primary and secondary assessment
	So much to learn! Loaded with knowledge Great scenarios and team
Take home points	Lots of learning points and take-home messages X2 Take home messages from every scenario
Interaction	Great bonding and interaction with the team members X3 Good learning atmosphere Interactive
Specific scenarios	Got to know lacunae in my own knowledge with regards to treating obstetric emergencies Trauma scenario - structured ABCDE approach X2 Reassessment
Other points	Informative along with practical applications Fun-filled debriefing The spirit and enthusiasm of my facilitators and co-participants Eisenhower matrix for multitasking
Suggestions for improvements	
	It is going well. Keep continuing with many different types of scenarios
	More scenarios for simulation X 3
	More interactive Equal involvement of all participants

	More simulation and debrief than lectures
	One scenario could have been performed by facilitators before conducting by participants
	Maybe some more time to go through the scenarios could have helped
	Exact location of scenario should always be mentioned clearly
	Maybe having a more diverse team, more of surgeons, obstetricians would benefit in better creation of simulation scenarios
	I am amazed by the programme and I'm learning so much every day, it couldn't have been better
	Loved the scenarios today
	Different case scenarios depending on professional role
	Reflection after sessions
	Please conduct these courses frequently
	To conduct more VAST programmes and train more people regarding non-technical skills
	Breaking bad news could be added into a scenario
	Nothing at all. Thank you
	Rest rooms?
Take away messages	
	Closed loop communication X6
	Sharing of mental model X9
	Role allocation to team members X9
	Optimal utilization of resources
	Situational awareness X10
	Teamwork and task allocation X8
	Dynamic decision making
	Assertiveness to control chaotic situation
	Respect your team members
	Prioritization
	Avoiding fixation errors during a crisis
	Take history of patient - AMPLE
	Check the name and expiry date of drugs
	Inform senior in case of emergency – call for help X5
	Early recognition of crisis X2
	Vocalize your point more confidently for better identification of crisis Announcement of crisis
	Systematic approach for assessment even in crisis with AMPLE/ABCDE X9 Exposure for early identification of crisis
	Assessment of ABCDE makes whole chaos to simplified differentiation of the reason
	Identification of burnout
	Reassuring patient and attenders
	Non-technical skills enhance our technical skills
	Human error can be avoided by proper planning and team work
	DEBRIEF AFTER A CRISIS X3
	Multidisciplinary approach is best in managing obstetric haemorrhage

	Put patient safety at the forefront – break hierarchy where necessary X2
	SBAR handover tool to be used during every transition of care X4
	Resource utilization – both human and equipment X2
	Be more attentive and responsive to trauma Reassessment of trauma patient – they are dynamic X4 'E' in ABCDE for exposure
	Eisenhower prioritization grid for multiple tasks X3
	Always ask your team how they felt after a crisis management
	Conduct debriefs / simulation scenarios
	Always keep differential diagnosis in mind after stabilizing the patient
Other comments	
	I had a great time with a lot to learn with every session and simulation. I'm glad to be a part of this and I'm definitely going to encourage many more medical professionals to be a part and learn as well.
	Guidance for course was excellent Meeting new people
	Nothing. Entire program is good
	I had good experience of simulation training
	Wonderful organisation by VAST team
	Good job team
	Fun day!
	Enjoying VASTING!
	Thank you so much for having me
	Overall it was a good experience
	It was a good session. Learned good communication. Happy with the good friendly environment
	The course created eye opener / ice breaker for many ____ (?selected) tasks
	LOVED being a part of VAST
	A well-conducted course and very enthusiastic trainers Time management was excellent Felt very comfortable in the environment created for learning
	Well conducted, good timekeeping Good team / participants Fun filled activities
	Thank you!
	Wonderful team, course and scenarios Looking forward to have FC also
	KEEP VASTING!
	Conduct more and more programs like this

Appendix II – Photos – FC

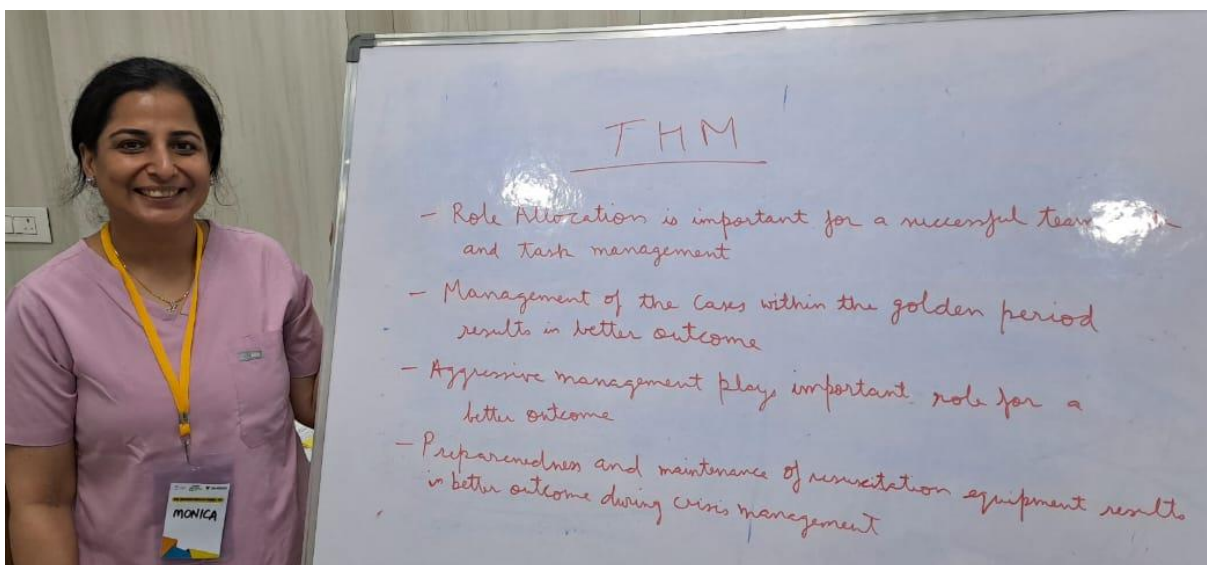
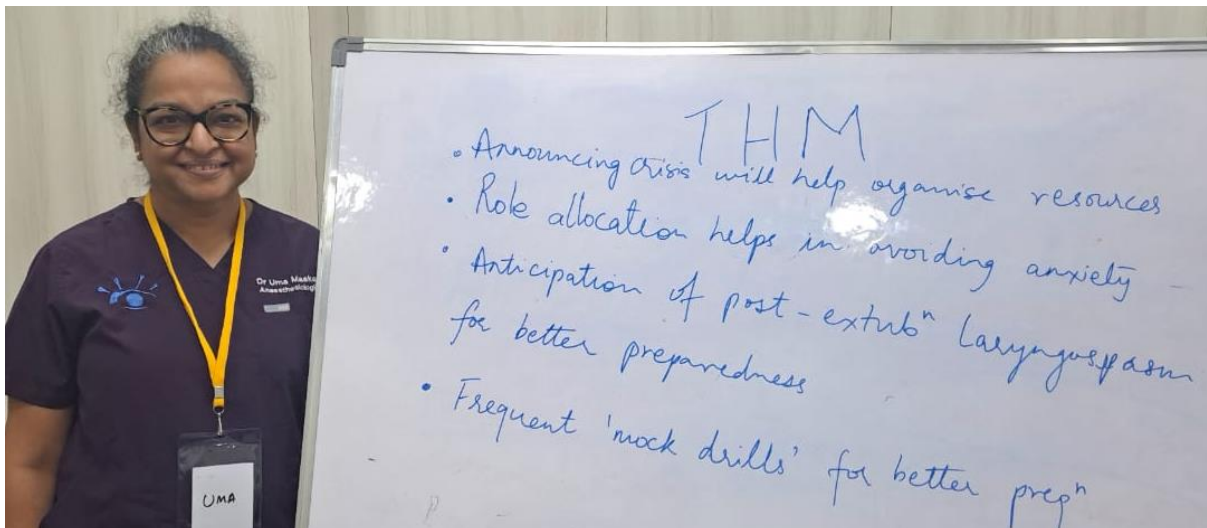
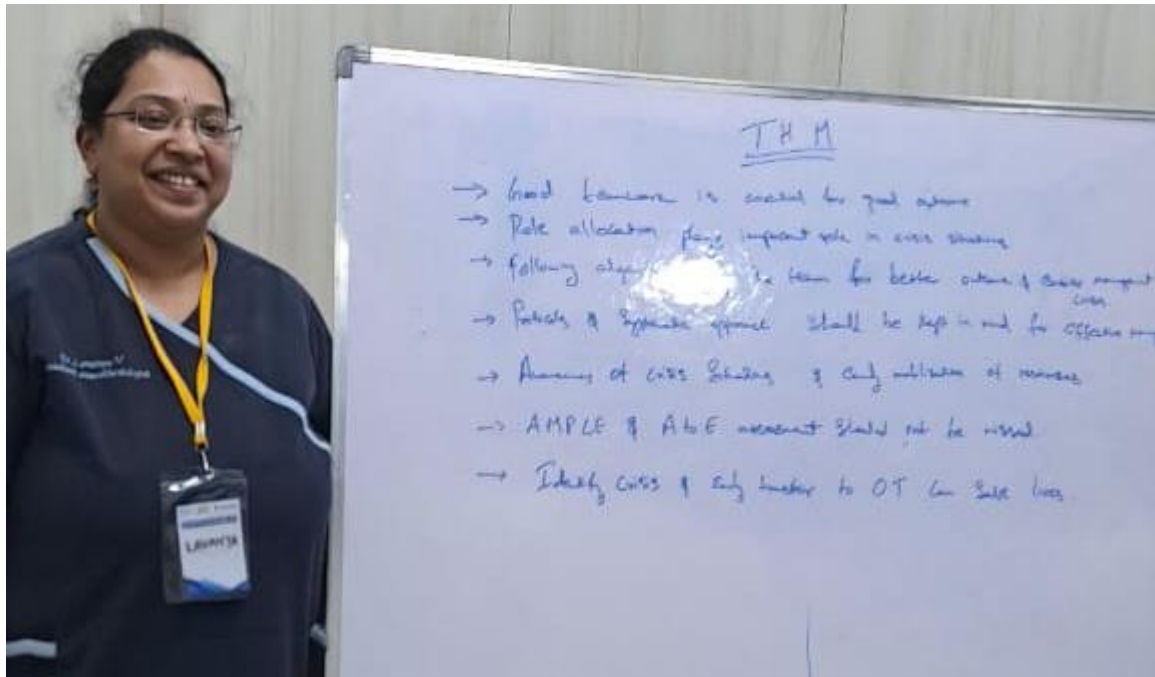


Scenario design – brainstorming!



Playing out your scenario

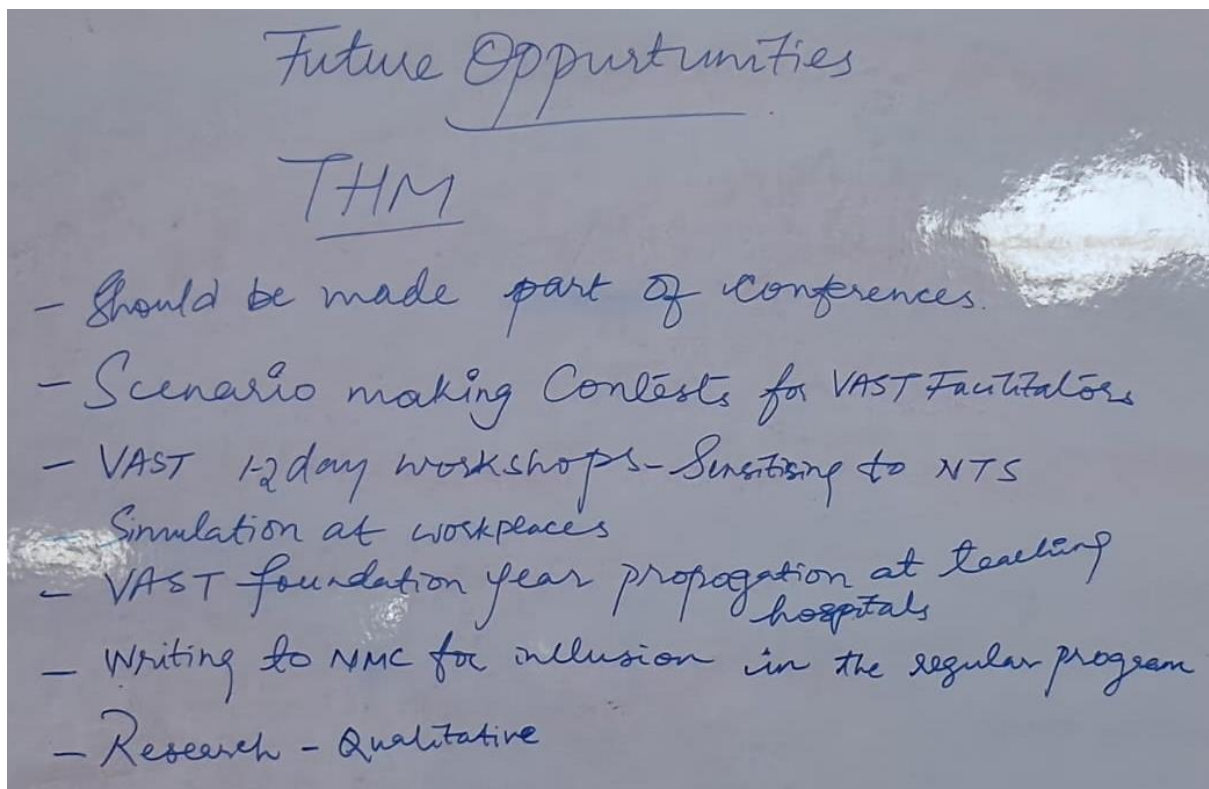




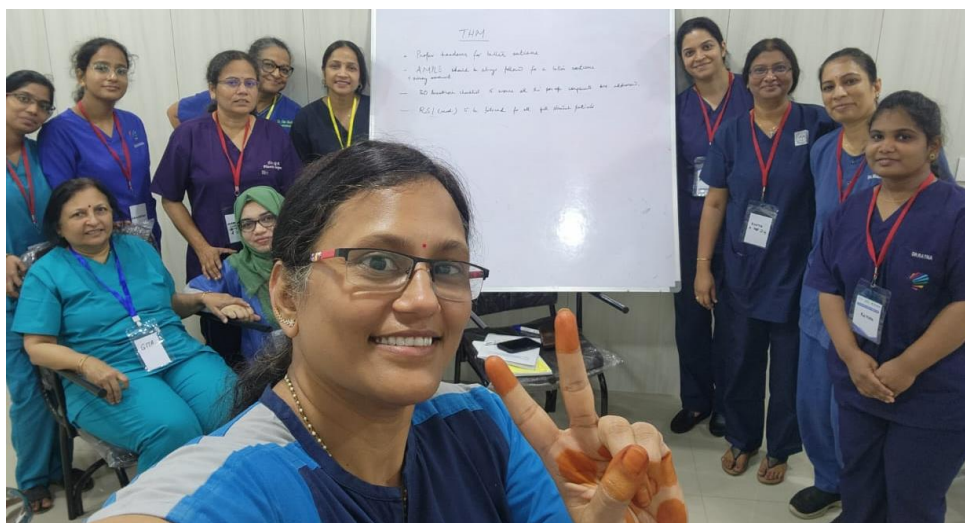
Bonding



End of Facilitator Course



Participants



Debriefing



Reflections

15/6

Reflections of Day 1

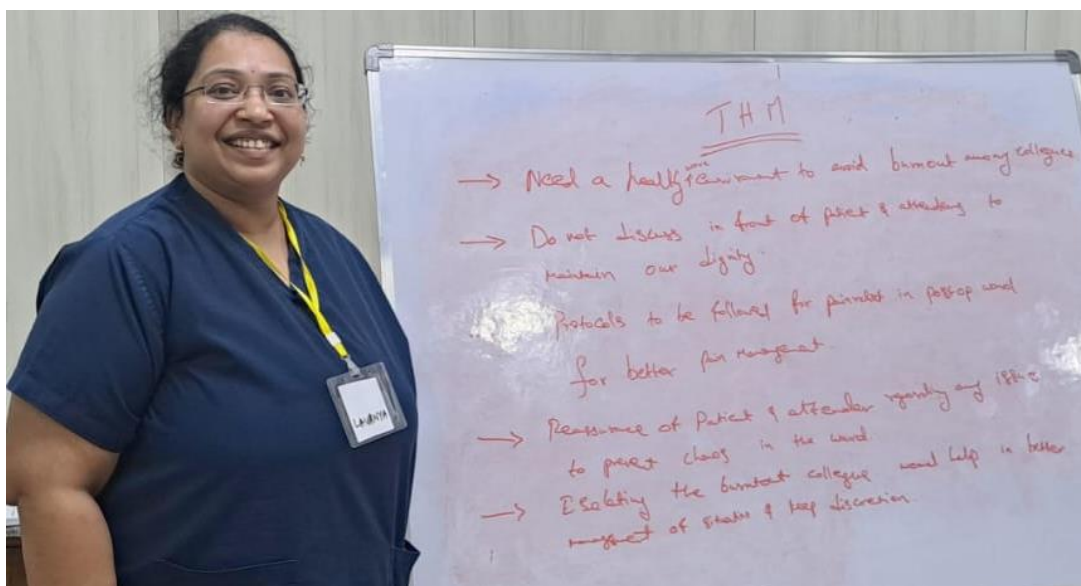
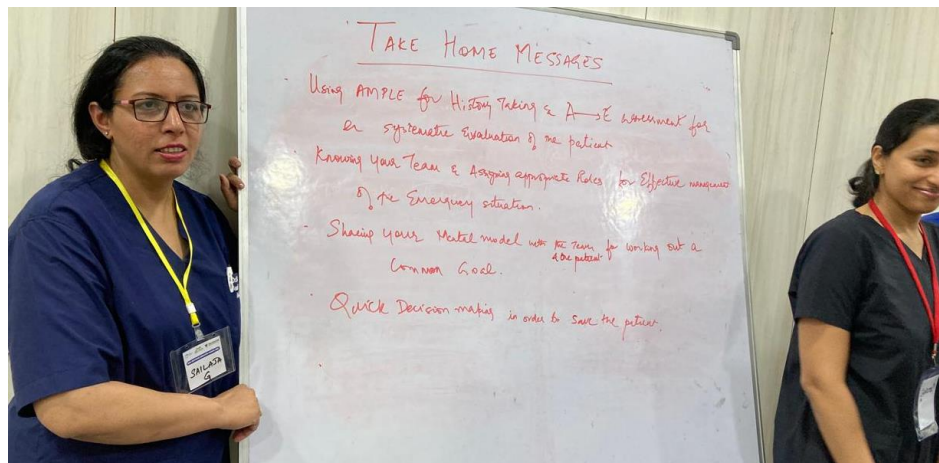
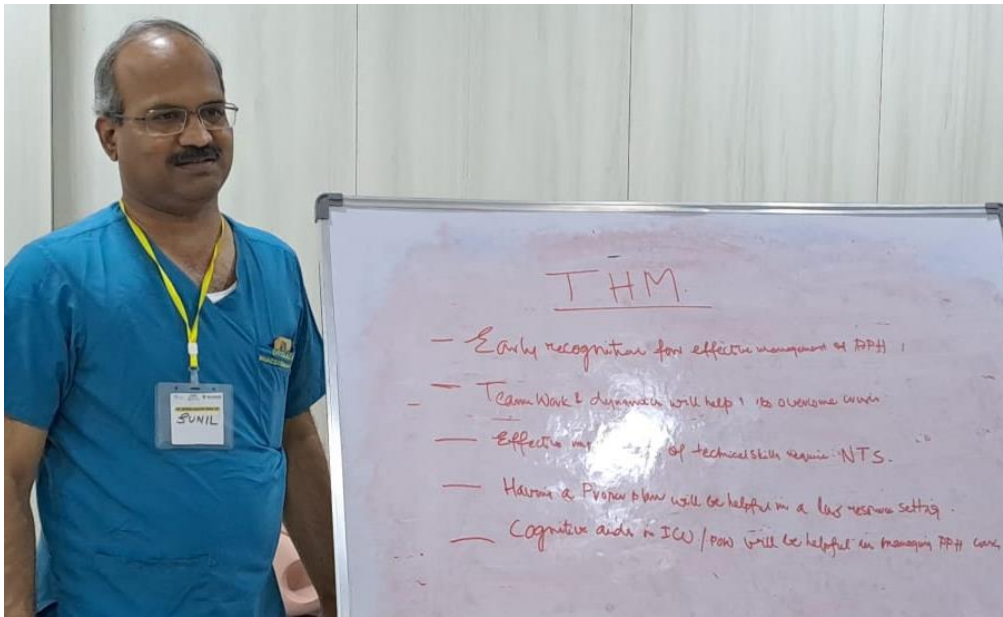
- Psychologically safe space with good judgement was liked.
- Not bored / cognitively loaded as scenarios and lectures were alternated.
- AC too cool for comfort
- Ice breaker and good friends gained
- Every scenario had good points to be picked
- Importance of teamwork is evidenced.
- Importance of communication and sharing mental model with team members
- Cool set of teachers & participants.
- Tim was a cool scenario
- Brings together people with different mindsets and broadens your thought processes.

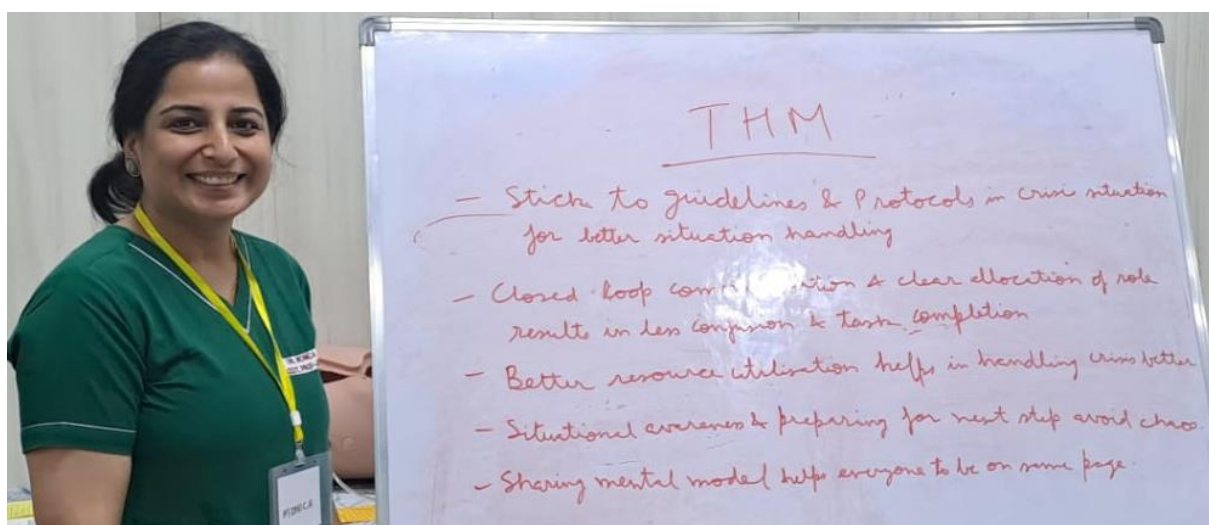
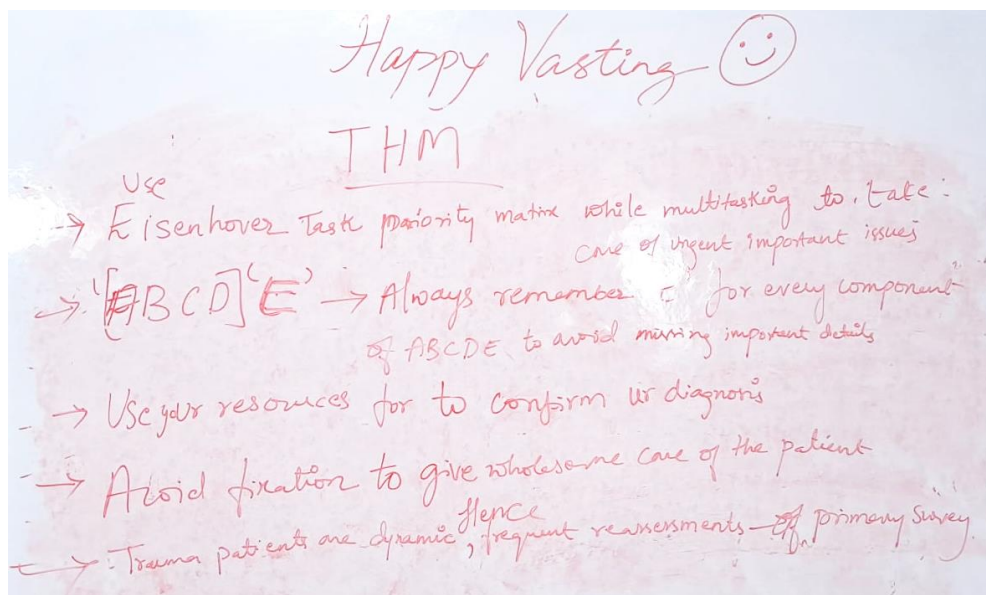
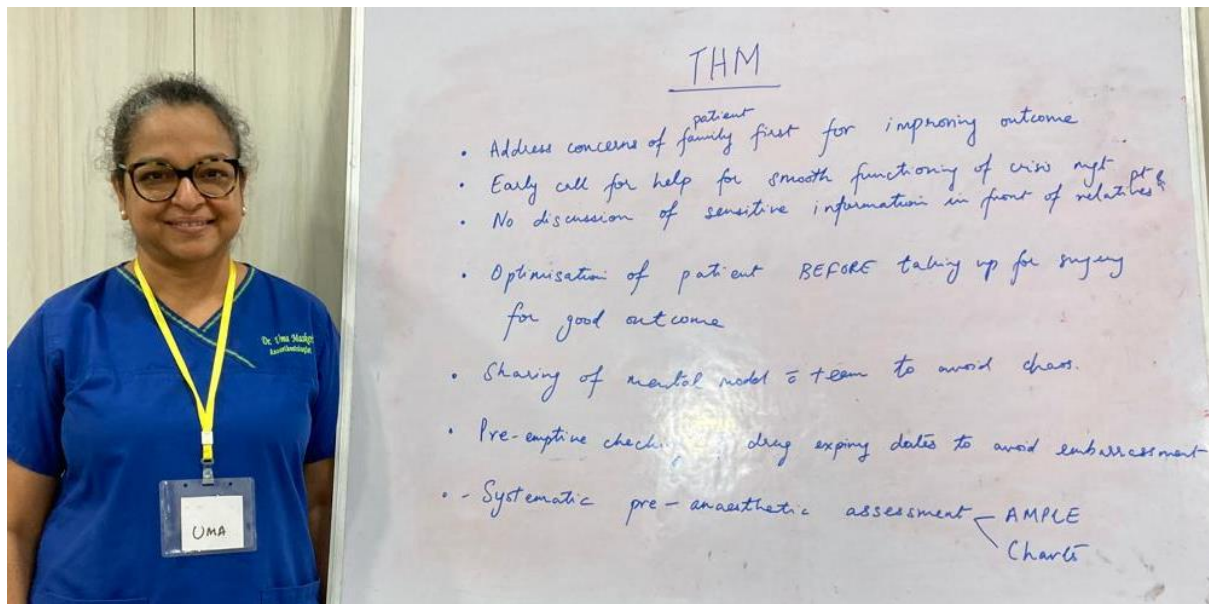
Reflections - Day 2

16 June 2024

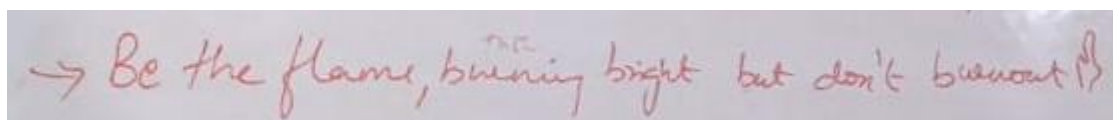
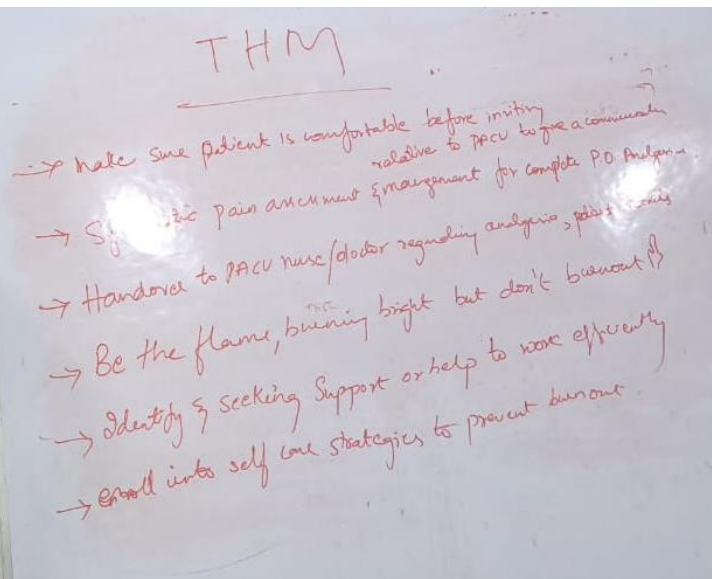
- Debriefing after a critical event
- When we work as a team we can have our goals set and achieve them
- It was fun
- Pay attention to patient (actor as well as role)
- Importance of role allocation
- Knowing your team
- Do not disclose sensitive information in front of patient/attenders.
- Assertive communication for technicians need to be taught.
- Hierarchy needs to be broken when needed.

Take home messages





Burnout scenario



Certificates



Some relaxation!

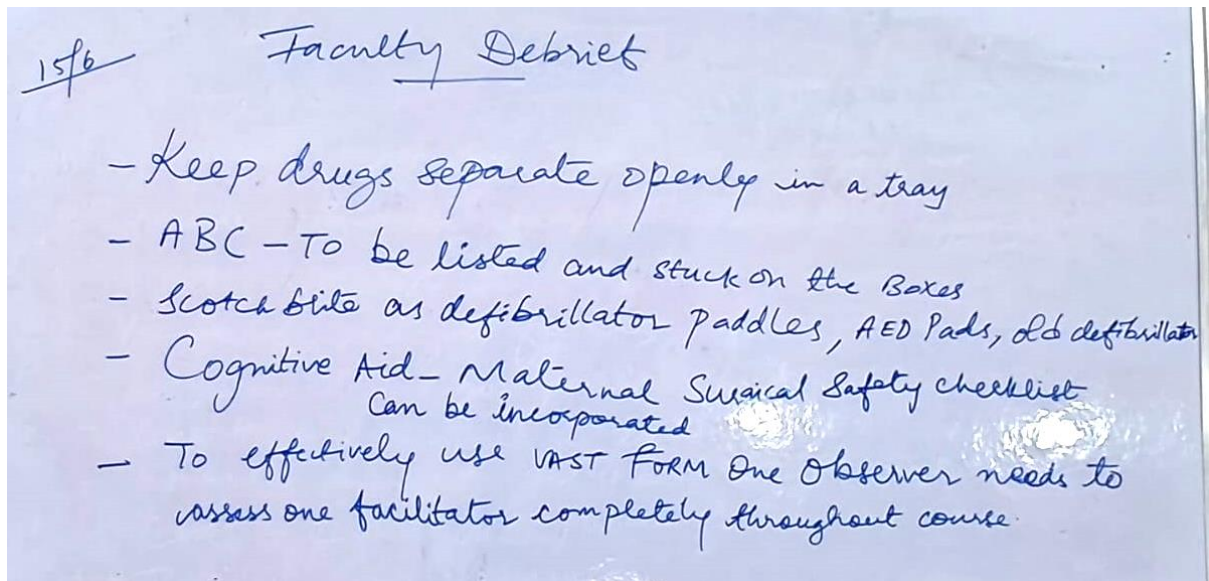


More bonding



Nostalgie!





Surprise gift!



