



TRAUMA & EMERGENCY ACADEMIC MEDICINE SENTINEL

“Proclaiming and Promoting Academic Leadership”

TEAMS

OFFICIAL VOICE OF ACADEMIC COLLEGE OF EMERGENCY EXPERTS (ACEE) & EMERGENCY MEDICINE ASSOCIATION (EMA) - AN INDUSEM UNDERTAKING

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From the Editor’s desk.

Dear friends,

2021 chapter is coming to a closure. A year which has taken us through lots of adventures.



A year filled with a life inside PPE. A year which has taught us many innovative things and jugaad.

Unity and togetherness is the most important key during this time. Covid a virus which we can’t even see with our naked eyes continued to bring our life to a standstill even in this year. Vaccination was indeed one of the most important breakthroughs in 2021. Later on, came another life saver - the monoclonal antibody cocktail. These armors have helped us to raise above the virus. Life has always been like this, the more challenging it get, the human race comes out with solutions to these challenges.

The 10 Days of academic extravaganza the World Academic Congress of Emergency Medicine (WACEM21 Congress) under The World Academic Council for Emergency Medicine was held virtually during this quarter with the Theme: From Security to Sustainability. An academic threat in all means. Legends in Emergency Medicine across the globe shared various aspects during this 10days, EMIndia2021 annual national conference of Emergency Medicine Association (EMA) was also held during this time. Maybe covid was able to make conference virtual, but it cannot take away

the experience of a conference including its vast amount of knowledge a conference can bring about both academic and research.

2022 - A new chapter in our life is waiting to unleash in front of us. The dimensions of this year are wide open. Let’s try to explore the new horizon. The horizon is having virtually no limits for multicentric research and multicentric academics in the coming years.

To all my fellow healthcare team/residents, throughout this year, you all have worked tirelessly in PPE for providing the best care to your patients. The efforts you all have put in will be scripted in the history of medical profession. Kudos to all your good works. EM has always department which works and will continue to work without any break even through any disasters, so let’s continue our efforts that we all did in 2021 to 2022 as well.

Wishing you all a happy and prosperous new year 2022.

Together we can, together we will....



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Tracheostomy and Emergency Airway Management

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ABCDE of trauma and Emergency Medicine comprises of most important 'A' i.e Airway management. This is the first skill to be learnt by all when one works in any area of hospital whether he is doctor, nurse, undergraduate, postgraduate or any health-care worker.

Airway management is a most essential skill for clinicians caring for all emergency critically ill or injured patients and is fundamental to the practice of emergency medicine. In emergency medicine practice, rapid sequence intubation (RSI) is the most frequently used and successful means of intubating the trachea. Other bulk of patients are those who arrive in cardiac arrest and who are intubated without medications. The emergency physicians must

have a definite approach to manage the airway. Every patient in emergency and trauma must be given privilege that he should be assessed properly and then accordingly should be managed with definitive Plans i.e

Plan A, B, C and D. The patient may be having possibility of difficult intubation, difficult bag-mask ventilation (BMV), difficult laryngoscopy, difficult ventilation via an extraglottic device, difficult cricothyroidotomy, and deranged physiology (apnea intolerance or refractory shock).

Basic airway management and advanced airway management trainings are very important and these significantly affect the morbidity and mortality rate in emergency. The emergency physicians must know how to do airway assessment, mask ventilation, laryngoscopy, videolaryngoscopy and endotracheal intubation. They must also know how to put supraglottics and perform infraglottic techniques like emergency cricothyroidotomy, percutaneous or surgical tracheostomy.

Basic and advanced airway management is taught under National Emergency Airway Training (NEAT) programme every year at least thrice in different regions of our country and abroad by our team. This year 2021, Symposium and Hands on Workshop was conducted on Tracheostomy and Emergency Airway Management (TEAM- 2021). This was conducted by Department of ENT at Govt. Medical College and Hospital, Chandigarh under the aegis of Emergency Medicine Association India (EMA) and Academic college of Emergency Experts in India (ACEE).

The workshop comprised of few interactive lectures on anatomy of airway, tracheostomy both surgical and percutaneous and further with emergency cricothyroidotomy both needle and scalpel. These are lifesaving skills that are required in emergency airway management and saves the life immediately if successfully done.

The lectures were followed by hands on workshop on 4 different stations where each skill was done by all the delegates and they learnt about surgical tracheostomy, Percutaneous tracheostomy, bronchoscopy, emergency cricothyroidotomy, scalpel bougie tube technique with transtracheal jet ventilation. It was 3 hours workshop and total duration of symposium and hands-on training was 6 hours. Total 50

delegates from all northern part of India (Chandigarh, Punjab, Haryana, Himachal Pradesh and Jammu) and from different streams of medicine, were benefitted from this training.

It was well appreciated by all and the knowledge was dissipated

through videos and live hands on workshop on mannequins. The faculty included Dr Surinder Singhal, Dr Nitin Gupta, Dr Himanshu, Dr Ravneet (ENT dept., GMCH), Dr Dheeraj Kapoor (Dept. of

Anaesthesia, FACEE), Dr Lakesh Anand (MMIMSR) and Dr Manpreet Singh (Dept. of Anaesthesia, FACEE). The course Director was Dr Manpreet Singh and Dr Surinder Singhal.

The other courses our team conducts for emergency physicians, other specialty, nurses, paramedics and community volunteers are as follows:

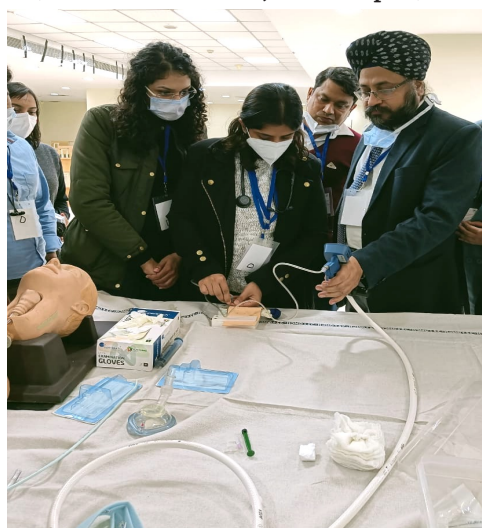
1. Trauma and Emergency life support
2. Critical Care and Mechanical Ventilation courses
3. Comprehensive Emergency

Life Support

4. Basic and Advanced Cardiac Life Support courses through American Heart Association and Non AHA Courses

5. First Aid and Resuscitation courses for community.

We are thankful to the ACEE INDIA, EMA India and who called me for the event and also thankful to Director Principal and authorities of GMCH-32 for providing us opportunity to exchange our thoughts that can be utilized in the patients in life saving clinical practice.



3 Floor EMD – Uniqueness filled with challenges

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Covid has raised lots of questions, concerns and challenges. But these questions and challenges has helped us to improve our system. Emergency medicine (EM) is one specialty right in the front of managing covid patients during this era. Hence, our practice of patient care has been challenged and had to make necessary changes for betterment of patient care during covid era.

Our Emergency Medicine Department (EMD) at MOSC Medical College Hospital, Kolenchery, Ernakulam, Kerala has been functioning for past 5 years and i was fortunate to be a part of establishing it. During precovid era, our EMD like most of the EMDs was having various zones – Triage, Red, Yellow, Green zones including decontamination zone, minor OT, procedure room with an Xray room and a lab within the department. We also have an observation ward in the 1st floor of our department.

During the covid time, we had to update our protocol of patient management. System change was pivotal. Hence, at that point of time, our EMD was divided into **two functional areas**, one in the **Ground floor - Main EMD** and the **2nd one in our 1st floor - Secondary Triage zone** were covid positive and symptomatic cases were evaluated and stabilised with a 4 bedded triage in the ground floor. Primary covid screening was done at the triage zone established outside main ED. We have also established a separate red zone in the secondary triage zone.

As we were going on with this system, a new challenge came in front of us. A major construction was expected to begin in front of our main hospital which also includes the front area of the EMD and this would result in closing off the entrance to our EMD. Hence, a separate entrance needs to be considered. For EMD, the only option we had was the basement floor which was used as a car park. So, over the course of time, with the support from administration including the maintenance department, this car park (around 10,000 sq. feet) was converted to an extension of our existing EM department. A separate lift was kept dedicated for shifting patients from the basement floor (EMD extension) to the ground floor (main EMD) and 1st floor (Secondary triage zone). The new EM area which was constructed in our basement floor should have all facility for triaging and stabilisation of the patient.

The **3 floor EMD** with a total of 30,000 sq. feet with 48 EM beds was established and started functioning. The EMD was divided into 3 functional areas - ED alpha zone (basement floor), ED beta zone (ground floor), ED delta zone (1st floor).

Facilities in each floor are as follows

- **ED Alpha zone** (Basement floor) - triage, initial stabilization, fast track along with Red zone
- **ED Beta zone** (Ground floor) - Main ED - 3 zones - the Green, Yellow and the Red zones along with Minor OT, Procedure room, ED lab and ED Radiology
- **ED Delta zone** (1st floor) - EM ward for COVID positive/symptomatic patients along with Red Zone, procedure room, isolation room.

Running 3 floor ED is indeed a challenge. The biggest challenge is to provide the best and effective patient care to all patients in all the 3 floors. Whatever be the challenge we need to find solutions. Mitigation strategies should be planned. Few challenges that we need to work through were Human resource, Equipments, Transportation, Counseling bystanders, Infection control practices, Documentation. All 3 floors should have skilled EM team including doctors, nurses and other support staff especially as each floor have a separate red zone. These were planned and executed. All 3 floors had round the clock EM doctors.

Transport team was made available. Almost all cases from alpha zone needs to shifted to either beta or delta zone. Facility upgradation to manage all critical patients in all 3 floors including separate equipment's were arranged in all 3 floors. Monitors, Defibrillators, Pumps, Ventilators, BiPaps, USG machine, Portable Xray, Electrocautery etc. were arranged. Continuity of care must be provided along with proper Counseling in each floor. Separate waiting area was provided in each floor. As it was covid era and we are managing patients without covid tests, each floor there was separate donning and doffing zone. PPE adherence was also a maintained. BMW & other infection control practices need to be monitored.

Even though managing the 3 floor EMD was challenging, we were able to bring out many unique outputs. By introduction of the new ED alpha zone, our main aim was to reduce the delay in 1st patient contact with a doctor, To reduce the time needed for resuscitation/ stabilisation of patient's and to provide quick care for green patients to reduce their time spend in ED.

In 2021 our EMD has seen over 45,000 patients, ED alpha zone received all cases and resuscitated and stabilised cases as required. We were able to reduce the 1st contact of a patient to a doctor < 5 minutes.

Through the fast-track OPD system in ED alpha zone 21.66% patients were able to the managed and discharged. The resuscitation and stabilisation has been quicker, which is evident in the reduction of mortality to 0.20% in 2021. We were following, continuous integrated triaging. Rapid stabilisation helped in down triaging red zone patients to yellow zone & yellow zone patients to Green zone. These have helped in better patient satisfaction & reduction in patient complaints. We thought of sharing our experience which many EMD would have practised during this time.

The whole system of a 3 floor EMD was possible with the support and contributions from the administration and the entire EM team.

In conclusion, managing 3 floor EMD is indeed challenging. Uniqueness in the 3 tier EMD made its special. Better patient care is the goal. Distribution of patients across the 3 floor made management more effective. Team-work is the crucial in providing the best and effective patient care.



EM Activities and Achievements in the past quarter



EMINDIA2021
Patient Centred Education, Research & Care

EPICON2021

INDUSEM have hosted their Annual Meeting every year since 2005 which primarily started off with Academic Leaders from USA and India attending the meeting. Over the years many International Academicians from around the world attended this popular conference which resonated in the grand success of the INDUSEM model. In 2014, Academicians from across the world decided that the INDUSEM Annual Academic Congress will be renamed as the World Academic Congress of Emergency Medicine (WACEM Congress) and a new Academic Organization called The World Academic Council for Emergency Medicine would be founded.

In 2021, WACEM was held virtually under the patronage of The World Academic Council of Emergency Medicine and INDUSEM. WACEM21 coincided with the EMINDIA2021 National Conference of Academic Emergency Medicine in India & The Emergency Pediatrics & Injuries Congress EPICON2021. The host institution of India was led by the prestigious All India Institute of Medical Sciences, Nagpur. The Co-Hosting Institutions were The Academic College of Emergency Experts of India (ACEE), The Emergency Medicine Association (EMA), The Sir H.N. Reliance Foundation Hospital Mumbai, The Academy for Clinical Emergency Nursing in India and the World Health Organization Collaborating Center for Emergency and Trauma in Southeast Asia located at AIIMS, New Delhi. The 10 Days of WACEM21 Virtual Congress encompassed the Theme: From Security to Sustainability. WACEM21 virtually also coincided with the celebrations of Azadi Ka Amrit Mohotsav as India completes 75 Years of Independence where bikers Shri. Prasad Chaulkar and Shri. Abhijit Kohli circled India covering 7000 KM and 12 states carrying the WACEM and India flag, spreading the message of Emergency Medicine, Safe Driving and Road Safety. They returned in time to kick start WACEM21.

Spanning over 10 Days across various time zones of the world WACEM21 featured talks from Star Academicians working in Emergency Sciences across the Globe. The ASHWAMEGH Faculty Development Program (FDP) was launched under the leadership of AIIMS Nagpur under the stewardship of Dr. Siddharth Dubhashi, Dean, AIIMS Nagpur. This ambitious project will undertake the meticulous training of all the Academic Faculty who will be founding the academic departments of Emergency Medicine across medical colleges in India. The EMINDIA2021 and The EPICON2021 Academic National Conferences on Emergency Medicine and Emergency Pediatrics were held simultaneously with WACEM21. They drew active participation from faculty and residents across India. The World CPC Competition saw the best institutions in the world compete in a 12-hour marathon competition where Dr. Amritnand emerging as the Faculty Winner from Sri Gokulam Medical College and Dr. Devansh Gupta emerging as a Resident Winner from AIIMS New Delhi.

Another major highlight of WACEM21 was the Women Leaders of WACEM Symposium which brought Female leaders from across the world to discuss and profess their leadership mantra. Women leaders from Brazil, USA, Turkey, Ghana, India, Sri Lanka, and Qatar actively participated in deliberation on developing a Female Focused Framework for Forwarding Leadership in Clinical and Academic Medicine.



Some of the key speakers for WACEM 2021 were Prof. Dr. O John Ma, Editor of Tintinalli's textbook of Emergency Medicine; Professor. Dr. Amin A Kazzi President of the Lebanese Society of Emergency Medicine was the WACEM21 Speaker of the Year, Secretary of State for Government of Romania was the Guest of Honor along with Professor Dr. DK Singh Director & CEO AIIMS Bhatinda who was the honorable Chief Guest for the Grand Event.



"WACEM21 set new standards in Academic Emergency Medicine at a global level. The content, the punctuality and the seamless uninterrupted transmission of content was impeccable and second to none. This was a proud moment for The World Academic Council of Emergency Medicine as well the host nation of India. 10 Days, 200 + national and international speakers and > 200 Hours of education is a new benchmark in Academic Emergency Medicine at a Global Level. Everyone who has been a part of WACEM21 should be, will be and is proud of achieving this TOGETHER...Congratulations!!" said Dr. Sagar Galwankar CEO INDUSEM and Chief Academic Officer for WACEM.