



Bye 2019, Hi 2020!

Dear Readers,

We've had some memorable moments in 2019 and as you read on you'll recall some milestones that we've achieved. But first here's some great news for all of us. Congratulations! CIME has now become South Asia's first simulation-based educational institution to be accredited by the US-based Society for Simulation in Healthcare, SSH. Thank you all for your amazing support and hard

work in helping us achieve this international recognition. We look forward to an even better year ahead, and may 2020 be another adventurous journey for all of us. Only by working together, we will explore new avenues & reach new heights of success. Happy reading!
Prof. Charles Docherty
Director, CIME

Let's start 2020 with some reflections on 2019

January-February



In January, the SONAM faculty started to utilise standardised patients (SPs) to teach mental health nursing. This initiative was taken to provide students with an opportunity to develop interview and therapeutic communication skills, focusing on the patient's mental health status.



Our beloved students, the Society for Promotion of Innovation in Education (SPIE) organised RE-ignite RE-search Symposium to provide a platform for students to engage in research-related discussions and interact with Faculty Research Mentors. Students from across Karachi participated in this successful symposium.

March-April

We organised the first-ever clinical simulation-based competition in Pakistan and first ever interprofessional SIMWARS anywhere! Globally, it is organised for residents only, however, healthcare is a team sport and CIME took an inter-professional approach resulting in a world-class learning experience for participants and an opportunity for

them to learn from mistakes and reflect on their developing clinical skills. Six teams participated in this. The winning team "SimNinjas" brought home the SIMWARS 2019 trophy. We're planning for an inter-university event this year. Read our [March-April newsletter](#) for full coverage of this amazing competition...



A Mass Casualty Incidents Workshop was successfully arranged as part of the 4th AKU Annual Surgical Conference. It started with participants being alerted to a bomb blast in the city and an expected surge of patients in emergency department with different types of injuries. A field triage was setup to allow participants to sort patients and later move them inside ER for management.

Our first three-day Clinical Simulation Operators Programme and Boot Camp for the New Private Wing were also held in [March-April](#).



May

Trainee nursing technicians experienced simulated home care in CIME. Five days of skills-based simulation workshops were delivered to enhance their ability to independently and competently perform basic nursing skills within the home setting, while ensuring quality care and patient safety.

SPIE conducted its second CPR awareness session at the Dawood Public School as part of an extensive on-going programme of health education designed and delivered by students, quality assured by AKU faculty, and supported logistically by CIME ([See the May 2018 newsletter for these articles](#)).

June-July

For the very first time in AKU, the Internal Medicine service line, in partnership with CIME, conducted a [clinical simulation programme](#) to enhance team leadership skills of senior registered nurses and team leaders working in the field of internal medicine who step up and play a significant role in the absence of head nurses or management.

Our team represented CIME in the Annual Meeting of the Society for Simulation in Europe “SESAM”, held at Glasgow Caledonian University 12 - 14 June 2019. We presented three abstracts: ‘A Marketing and Communications Strategy for Simulation Centres’, ‘Assessing the self-efficacy of participants undergoing simulation-based training’ and ‘The value of debriefing in Healthcare Simulation’.

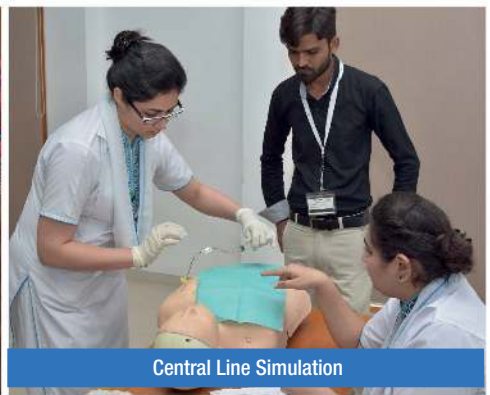




Breech Delivery Workshop



SONOGAMES



Central Line Simulation



SONOGAMES



Mr Lachman Chotu and Team

CIME's first breech delivery workshop was arranged for Obstetrics & Gynaecology residents and medical officers. 22 residents and faculty from across Sindh participated in this activity.

CIME organised the first-ever **SONOGAMES** in Pakistan. This was a fun-filled game show, with a few twists and tweaks here and there to be both informative and entertaining. Teams of residents from across Karachi participated and the team "Cool Cats" turned out to be the eventual winning team, having performed excellently throughout the whole event.

'Jugaad' – as all Pakistanis know - is a creative or innovative way to providing a quick fix to a problem using

only the resources available. In a sense it is a philosophy of 'innovation', somewhat equivalent to the British concept of 'make do and mend'. So, having already shown in CIME that it's ok to innovate, we used a 'Jugaad' approach to simulate a central line using an obsolete CPR mannequin, which had gasped its last, old PICC lines and Porta Catheters.

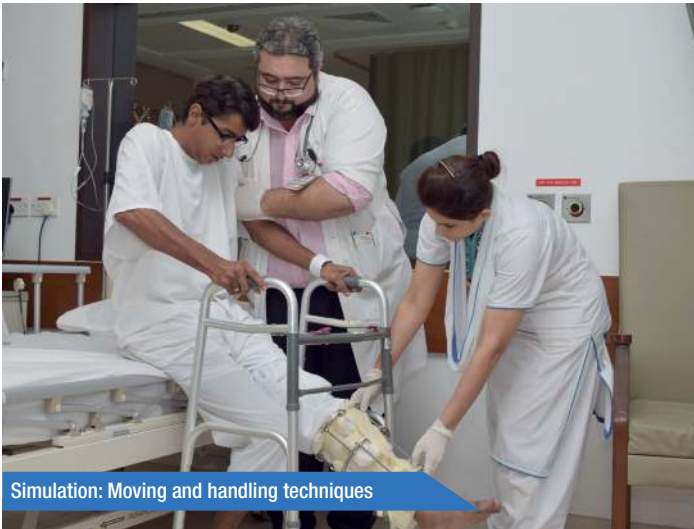
Check out the [June-July edition](#) to find out about Mr Lachman Chotu who has given more than 35 years of his 43 year working life to AKU. He has tremendous supervisory skills, and now leads what has become a very efficient housekeeping team in CIME: absolutely essential for its 52 learning 'spaces' with capacity for 670 students.

August-September

We joined the global simulation community to celebrate [Healthcare Simulation Week 2019](#), from 16-20 September. The aim was to generate awareness of the importance of simulation in improving the safety, effectiveness, and efficiency of healthcare delivery. We arranged the Room of Errors and Hands-only CPR awareness activities. Mr qaSIM also celebrated this week with us by going out of CIME to interact with students and public as he toured AKU in the campus shuttle.



Healthcare Simulation Week 2019



Simulation: Moving and handling techniques

Back injury is a preventable occupational hazard in healthcare. To address this issue, the Physiotherapy Department and Nursing Education Services, in collaboration with CIME, took the initiative to raise awareness of care-givers' physical health while helping patients to avoid complications of bed-rest, and injury through inefficient moving and handling techniques.

This simulation-based workshop was focused on the optimal [handling and ambulation of post-procedural orthopaedic patients](#).

The top of the range high-fidelity paediatric simulator 'Super Tory', was integrated into the Neonatal Resuscitation Programme for the first time, with great effect in improving the competence and performance of NICU staff.

The Pre-Congress Workshops for the 40th Annual Congress of Ophthalmology were successfully held at CIME. Recent advances in ophthalmology were highlighted in this congress by our world class faculty, international & national speakers.



Neonatal Resuscitation Programme



Ophthalmology Workshop



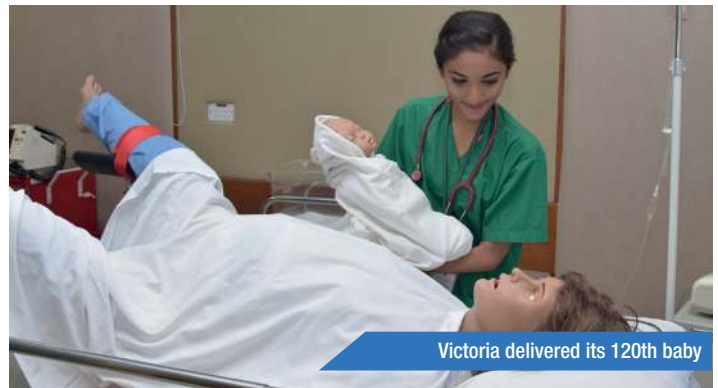
[The continuum of care](#) between home and hospital can now be simulated at CIME. This video gives the example of a prospective mother having a complicated delivery requiring emergency admission to hospital and illustrates the role of community care, emergency services, and emergency hospital care. What is immediately revealed in this simulation are opportunities for integration of care, rehearsed practice, competency development, and equipment requirements in a modern ambulance service. Identifying such variables through simulation should feed recommendations back into practice and is a novel application of clinical simulation.

Full exploration of this concept awaits... particularly as we can now also simulate more rural areas of Pakistan. Interested academics anywhere?

October

Victoria delivered its 120th baby, by third year nursing students. Each student gets an opportunity to conduct a hands-on session to care for mother and baby before during and after the birthing process.

Victoria has been a great help in standardizing the teaching of the birthing process in more than one sense pushes students to deliver!



Victoria delivered its 120th baby



School Teachers' First Responder Course

The School Teachers' First Responder Course was developed to meet the needs of teachers ill-prepared to respond to medical emergencies in the classroom.

87 teachers have already benefitted. This course is novel and provides professional development opportunities for our students while exposing teachers to learn through simulation-based education. Amazingly successful, it is in high demand and will be offered throughout 2020.

General practitioners from across Pakistan, gathered in CIME for a much needed update in evidence-based practice and the latest thinking in infection control and to rehearse clinical scenarios to strengthen skills in basic life support, suturing techniques, pathological heart and lung sounds identification and managing fractures and other minor injuries that may present at their clinic.



Skills Refresher Workshop



Neonatal Resuscitation Programme

To improve practitioner skills in supporting neonatal care, doctors and nurses from the secondary hospitals of Aga Khan University - Garden, Karimabad, Kharadar, and Hyderabad - attended an NRP workshop in CIME and practiced situations that in real life often have serious consequences if not rehearsed regularly.



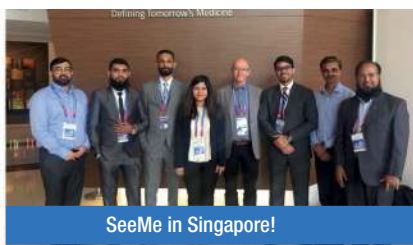
Faculty say that students are now better engaged, better supervised and are developing skills in a more rigorous way.

All because they're not allowed to sit! To find out how it happened, check out the [October 2019 news edition](#).

November



Simulation Workshop for Pakistan Air Force



SeeMe in Singapore!



Dawood Public School



SeeMe in Finland!



CIME collaborated with the Pakistan Air Force (PAF) to train doctors through simulation-based education. 24 doctors have been trained in Paediatrics, General Medicine, Obstetrics, Gynaecology and General Surgery. This could be the beginning of a wonderful relationship as we work towards developing an MOU.

Our team presented four workshops in the [S3 International Conference](#) held in Singapore. These were positively received and applauded for effort and ingenuity, while the question & answer sessions found enthusiastic audiences wanting to learn more about the work that was being presented, as well as about CIME itself. We are perceived as a refreshing addition to the international arena of clinical simulation. While it was a great opportunity to learn about development & progress elsewhere, it is evident that CIME is making a huge impact on society and healthcare education in Pakistan when compared to more established simulation centres around the world.

[SPIE](#) came into action again, this time training 100 school kids, from Dawood Public School on the basics of providing First Aid treatment followed by rotation around activity based scenarios. Burns, fractures, snakebite management, wound care, choking, chest pain and CPR revision were all covered in an exciting and interactive manner. Our students' organizational abilities, practice skills, teaching skills and all-round professional standing is improved through these activities. Truly a win-win situation that the team at CIME are fully prepared to support.

Two members of CIME's technical team were invited to the [Planmeca Dental Simulation Technical Training](#), in Helsinki, Finland from 18-21 November. This training was essential for the preventive maintenance of the specialized equipment of CIME's Dental Simulation lab. One impact of this training is the development of a more competent CIME technical team, better prepared to serve our dental faculty and clients.

News: December 2019 – January 2020



CIME becomes South Asia's first to receive SSH accreditation

CIME has become South Asia's first simulation-based educational institution to be accredited by the US-based Society for Simulation in Healthcare, SSH. CIME was judged to meet the highest standards in simulation-based education by the SSH which has accredited over 170 centres in 19 countries around the world. The accreditation means that CIME will join a global community of practice bringing the latest advances in the field to Pakistan.

Simulation-based education represents a significant advance on traditional classroom and theory-based instruction. Designed to be an immersive 'real world' experience, simulation, in the field of healthcare, enables medical and nursing trainees and professionals to practice key skills and techniques, using virtual reality and high-fidelity patient mannequins, in a risk-free environment before working with patients.

CIME Director Charles Docherty, the Dr. Robert J. Buchanan Professor in Teaching and Technology, received the award during a ceremony in San Diego. In his speech at the event, he noted: "Healthcare is both an art and a

science. While textbooks and teachers can teach concepts, simulation-based education augments the academic experience by challenging students to apply their knowledge and inter-personal skills in realistic settings.

"The result is that students feel more confident when they begin practicing as they are already familiar with the equipment to be used and the processes to be followed. This leads to a much better experience for students and patients."

As a pioneer in healthcare simulation in Pakistan, the 80,000 square feet CIME is Pakistan's only facility that enables aspiring doctors, nurses, dentists and allied health professionals to work collaboratively on a range of challenging, technology-enhanced patient scenarios.

"CIME was founded with the vision of introducing state-of-the-art learning technologies to raise overall standards of healthcare education across Pakistan," said AKU President Firoz Rasul. "There are simulation centres

around the world that have been operating for decades without achieving accreditation from the SSH. We are very proud that CIME has been able to achieve this distinction within two years of its formal inauguration.”

The CIME runs over 200 simulation-based courses, ranging from basic life-support to complex birth scenarios that have improved the skills of thousands of healthcare professionals to date.

“We’re pleased to recognise Aga Khan University’s Centre for Innovation in Medical Education for meeting the

highest standards in the practice of simulation in healthcare.” said Kristyn Gadlage, director of accreditation at the Society for Simulation in Healthcare. “Aga Khan University now joins the ranks of over 170 institutions from 19 countries.”

CIME is open to students from other universities and healthcare institutions across Pakistan and is currently working with public sector bodies in the country as well as centres in Kenya, Uganda and Egypt on initiatives to raise the standard of simulation-based healthcare education.

RE-ignite the SEARCH 2.0: Research Symposium



Building on last year’s success, SPIE’s Research & Development Wing organised the second edition of their annual Research Symposium on the 25th and 26th of January 2020. The Symposium was structured according to two tiers. Tier 1 Workshops taught Basic Research Skills, and was attended by 85 medical and nursing students. Tier 2 Workshops taught Advanced Research Skills (including the application of Data Science and Simulation to Research), and was attended by 25 participants, ranging from medical and nursing students,

to interns and medical residents.

This year, more than half of the symposium’s participants were from institutions external to AKU, and this marks the beginning of SPIE’s ventures to expand its outreach to a broader audience. Moreover, having introduced perspectives to healthcare research that are novel to our setting, such as Data Science and Simulation, SPIE’s R&D Wing plans to pursue these avenues to broaden the horizons for research at AKU and the rest of Pakistan.

Code Orange Activated @ CIME!



A two-day workshop "Code Orange" was designed by GI and Surgery service line in collaboration with CIME, which included interactive sessions on hospital mass casualty preparedness planning and management. The sessions were comprised of procedures and protocols utilized in dealing with head, chest, abdomen and limb trauma including a full day of simulation. All sessions were conducted by experts in the respective fields.

Simulation commenced with the activation of code orange. Phase One started, in which a 10 bedded ward was evacuated and prepared as a trauma ward to receive patients with initial management from the Emergency Department. In Phase Two, ten trauma cases were received, each having a different organ/system involved.

14 clinicians were involved as 'learners' in this simulation, each having a described role according to their current working designations. To assess the management of each case, a facilitator was assigned with an observational checklist. The B-line debriefing system allowed the assessment of overall group dynamics and management. At the end of the simulation, the participants felt

accomplished and could identify areas for further improvement.

It was the first time that any simulation was done for mass casualty management at ward level. The workshop enabled participants to feel the stress that occurs in a real-time situation and find ways to develop their resilience. Overall, it was a great learning experience for all participants, facilitators and volunteers.





First-ever Boot Camp for Trainee Nurse Interns

Transitioning from student to intern

The transition from nursing student to nursing intern can be exciting, stressful and challenging. To facilitate this, the Department of Nursing Education Services (NES) partnered with CIME to offer a two-week Boot Camp for newly hired 145 Trainee Nurse Interns (TNIs) from December 2019 to January 2020.

This Boot Camp is the first of its kind for TNIs. It aims to 'level up' and 'iron-out' disparities within the group, to establish baseline competencies in the clinical workplace.

During the two week period, TNIs practiced assessment, evaluation, and proper nursing care while at the same time learned the institution's procedures, equipment, and documentation protocols. Moreover, they were able to practice caring for patients in simulated life-threatening situations.

Sana Gul, joining AKU as TNI said: *"The Boot Camp helped us to revise and refresh critical nursing skills and concepts that we learned throughout four years of nursing school. Signing off of different nursing skills including medical technology was a need of the hour before we start our internship and this camp really helped us develop expertise on all those devices we would use in the hospital."*

Herika Bano, joining AKU as TNI said: *"This camp was very beneficial. One of the best things about this camp was simulation which helped me out to integrate my knowledge into practice and make me able to gain confidence to work in the hospital."*

The Boot Camp was a massive help in preparing TNIs so that they can manage their workload, stress levels, deal with medical emergencies and provide the quality and safe care to patients.



Boot Camp for New Interns and Residents

The 2nd Annual Boot Camp was organised by CIME and PGME for 160 new interns and residents hired at AKUH for the year 2020. It was aimed at providing the learners with an experiential learning opportunity to help them strengthen their knowledge and skills and providing better orientation to the working environment and skills protocols followed in the hospital.

Dr Hamza Bajwa, participant and a graduate of Dow Medical College, joining AKU as an Intern said: *"This Boot Camp gives us a lot of confidence. We recently became doctors right after finishing medical school so this is in our favour that we improve our skills and knowledge. Boot Camp will make us confident on our first day in the wards. Today the procedures that we are learning are going to save the patients tomorrow."*

Dr Safna Virji, an AKU Intern joining AKU as a Resident General Surgery, said: *"I was an Intern here back in 2018 so in comparison at that time we were just introduced into the wards immediately we did have an orientation but that was just presentations, etc. Over here at this Boot Camp, we are having a much more hands-on experience and I think it's very useful especially for people coming from outside AKU because it gives you a hands-on opportunity, it gives you a feel of what life is going to be in the ward."*

The Boot Camp was well received and appreciated by the participants and has boosted their self-confidence. We anticipate that this will eventually lead to improved patient safety and a smooth transition for the interns and residents. We wish the interns best of luck for their future endeavors.

Management of Common Dermatological Disorders

With an increase in patients with dermatological disorders in general clinic settings, there has been a concomitant increase in the prescription of steroids. Much of this is inappropriate, due to unspecialised practitioners not being aware of current guidelines and best practice.

This course provided learners with hands-on experiences through simulation-based learning where they become more skilled and knowledgeable in treating patients with a variety of dermatology disorders. Simulated patients were used to demonstrate common dermatological disorders.

During this course learners built on their existing understanding of dermatology and learnt how to apply best practice guidelines to the care of their patients.



Clinical Simulation Educators Programme

The 5th Educators Programme was successfully held on December 9-13, 2019. 30 participated in this programme from across the country including one from Qatar and one from Iran.

Till now 83 experts from the fields of medicine, nursing, education and administration from across the world have been trained in this programme. It provides simulation experiences and develops skills to propagate simulation based education within curricula.

Our next programme is planned for March 2-6, 2020. Limited seats are available. Register now!

Register online:
<https://www.aku.edu/cime/Pages/course-registration.aspx>

Detailed information:
<https://www.aku.edu/cime/Pages/educators-programme.aspx>





Champions' Conference 2.0

The Champions' Conference 2.0 was organised to promote the hard work of CIME Champions, highlighting challenges, opportunities and future direction within this role. CIME congratulated its super users on playing their part in endorsing simulation-based learning.

Topics of discussion were wide-ranging including a glance into the future for CIME, plus the work of CIME 'core team' who work incessantly to provide the context for high quality simulation-based education.

This year our champions and super-users developed a series of simulation-based programmes within their specialty areas. It helps in the promotion of simulation-based education nationally and internationally. We also acknowledge that many of our faculty, staff and students within AKU have started writing research papers on simulation.

Our champions and super-users continue to grow and bring more innovative ideas to advance quality teaching and learning and improve the healthcare of our society.

Anaesthesia Management of Postpartum Haemorrhage (PPH)

In Pakistan, more than 8,000 women die and about 150,000 women suffer from the postpartum haemorrhage complications every year. PPH is an emergency and a lack of experience and competence can lead to detrimental consequences for the patient.

A simulation course on the Anaesthesia Management of PPH was organised to produce more specialists in this field. It was aimed at improving clinical outcomes, by reducing the likelihood of medical error and by achieving competency in response to obstetrics bleeding emergencies.

This course was held for the very first time in AKU, for anaesthesiologists, medical officers, residents and interns, facilitated by our experts Dr Sobia Khan, Dr Faisal M Khan and Dr Asiyah Aman.



Simulation for PACU

Postoperative patients have just received a major assault, their homeostatic mechanisms under duress, and are thus very vulnerable to potential complications.

It is crucial for those clinicians in the PACU team to have current knowledge with well-rehearsed competencies and skills in dealing with routine activities in post-surgery recovery environments, where small errors can have a disproportionate effect on patient well-being.

CIME collaborated with the operating room administration to train staff in designating tasks, prioritising patient needs and managing the flow of patients post-operatively in a fully-fledged simulation using high fidelity patient simulators. An enlightening and enriching experience for participants.



AdAsia 2019

AdAsia 2019, the most prestigious global Advertising and Marketing Communications Conference, returned to Lahore after 30 years bringing many prominent global personalities to Pakistan from the media, marketing and advertising industry including Richard Quest, CNN anchor, Randi Zuckerberg, CEO Zuckerberg Media, and Fernando Machado, CMO Burger King, America.

Mr. Shayan Alwani, who is responsible for CIME's business development, had an opportunity to be part of AdAsia Congress 2019.

It was an experience full of learning, and showed how we can promote simulation-based education in our society and how we can collaborate with different organisations in different ways..

