4CS Bulletin

The Newsletter of Ceylon College of Critical Care Specialists

August 2023

IN THIS ISSUE:

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August 2023

4CS
BULLETIN
AUGUST 2023

Dr Dilshan Priyankara
MBBS, MD, FRCP, EDIC
President

Message from the president

It is an honour and pleasure to make my statement on our Ist newsletter as the president of the Ceylon College of Critical Care Specialists (4CS). As we continue to navigate through these unprecedented times, I am keenly aware of the incredible work that we have been doing on the front lines of our healthcare system. The dedication, skill, and compassion have been nothing short of extraordinary.

The field of critical care is one of the most challenging and dynamic areas of medicine, and the expertise is essential to the health and well-being of our citizens. As we face new and emerging threats to public health, we will make sure that we are committed to supporting you and providing you with the resources and tools you need to continue to deliver the highest quality care to the patients.

We recognize that the demands of our profession can be overwhelming, and we are committed to supporting your physical and emotional well-being as well. We understand the importance of self-care and the need for a healthy work-life balance, and we are committed to work to create a culture of care that supports overall health and well-being.

'Commitment and Care', has been our motto and we continue to fulfil the committed and passionate delivery of care towards critically ill patients. Ultimately, I firmly believe that the College of Critical Care Specialists would lead its specialty beyond the pinnacle of success.

Dr Shirani Hapuarachchi
MBBS, MD, FRCA
Chief Editor

Message from the chief editor

I am extremely happy to be associated with the Ceylon College of critical care specialists in their venture towards publishing a newsletter.

It gives the young specialist an opportunity to publicise their original work and also to review the work of others. It's also a platform to put forward your views on current issues as well as any problems encountered during your clinical practice which undoubtedly will stimulate a healthy dialogue.

It will also showcase the work by the College towards the development of the specialty especially as its a young specialty not only in Sri Lanka but throughout the world. The trainees in the specialty will benefit enormously not only in our country but in the region as well.

We should be able to use the news letter to further education and training not only citing journals but by advertising our workshops so that our neighbouring countries too will be able to benefit

It is the stepping stone towards the publication of a journal by the College and I sincerely hope the College will embark on making this a reality.

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Inauguration of Ceylon College of Critical Care Specialists

Seated (from left to right): Waruni Samaranayake, Manoj Herath, Chamin Weerasekara, Nuwan Ranawaka, Dilshan Priyankara, Chamali Aluwihare, Anthony Mendis, Anushka Mudalige, Asfir Lebbe, Udya Rodrigo

Standing from left to right): Anuradha Weerasinghe, Buddhini Imbulpitiya, Namal Wimalasiri, Irangi Jagoda, Makarim Mohommed, Manik Lokuge, Krishakeesen Kamal, Nalika Gunawardena, Tharuka Kalhari, Dinesha Punchihewa, Rasanee Wanigasuriya

GLIMPSE OF EVENTS

September 2022

Pre-congress workshop - 135th international medical congress SLMA
In collaboration with SLMA & SLCEP

October 2022

Galle Medical Association - 80th Annual Scientific sessions
In collaboration with GMA

December 2022

ISCCM Collaboration critical care workshop – ventilation and haemodynamic monitoring
In collaboration with the Indian Society of Critical Care Medicine

May 2023

CCP specialty update – Critical care
In collaboration with CCP

WORKSHOPS

January 2023

BLS by 4CS
At Simulation Centre: Colombo East Base Hospital

March 2023

4th CRRT CREST Course
At NHSL

May 2023

2nd Focused intensive care sonography accreditation FICS course
At Clinmarc NHSL

May 2023

FCCS – Collaboration with GMA
At Teaching Hospital Karapitiya

1

SLMA Pre-congress workshop – 135th international medical congress, in collaboration with SLCEP

4CS was invited to the Pre-congress workshop of the 135th international medical congress conducted by Sri Lanka Medical Association (SLMA) together with the Sri Lanka College of Emergency Medicine. This was held on 3rd September 2022 at the BMICH Colombo. The Pre-congress session was full of interactive sessions which included case discussions on the deteriorating patient, sepsis, and Trauma. Dr Dilshan Priyankara, Dr Anushka Mudalige, Dr Waruni Senanayake, and Dr Rasanee Wanigasuriya participated as resource persons.

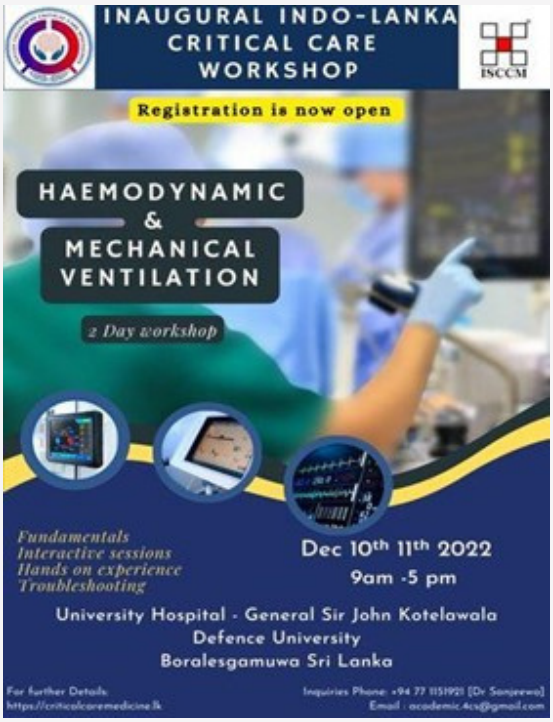
SLMA Pre-congress workshop – 135th international medical congress, in collaboration with SLCEP

Galle Medical Association - 80th Annual Scientific Sessions

Two pre- congress workshops were held on the 12th of October 2022 for nurses and doctors as a collaborative event between the Galle Medical Association and the Ceylon College of Critical Care Specialists. The two workshops, Fundamental Acute Care Support for doctors and Acute Life-Threatening Event Recognition and Treatment for nurses were held at the Galle Medical Association auditorium and nephrology auditorium of Teaching Hospital Karapitiya respectively.

Critical care workshop (ventilation and haemodynamic monitoring) with the collaboration of ISCCM

A joint venture between the Indian Society of Critical care Medicine and Ceylon College of Critical Care Specialists took place at the Kothalawala Defence University on 10th and 11th of December 2022. We were delighted to have an expert Indian panel led by Dr Rajesh Mishra, the president of the ISCCM at the time, join this workshop on haemodyamics and advanced ventilation. Lectures, quizzes, small group discussions as well as high fidelity simulation were used to make the event a success. Participants, a total of 40, included medical officers, post graduate trainees as well as consultants involved in critical care medicine. The success of the event was well expressed through the positive feedback received from both faculty and participants. The event helped to strengthen the bond between the two countries in terms of exchanging knowledge, skills, and friendship.



Critical care workshop (ventilation and haemodynamic monitoring) with the collaboration of ISCCM

4

CCP SPECIALTY UPDATE – CRITICAL CARE

The month of May was dedicated to the field of critical care medicine in the specialty updates conducted by the Ceylon college of physicians. 4CS delivered 2 lectures and a case-based discussion. Prof Jorge Hidalgo, the president of the World Federation of Intensive Care and Critical Care delivered a talk on 'Microbiome'. Dr Anushka Mudalige discussed evidenced based management of acute liver failure. Dr Lilanthi Subasinghe and Dr Qaanitha Jayah presented an interesting case of cardiomyopathy. This was held at the Clinmark auditorium at the National Hospital of Sri Lanka on 23rd May 2023.

WORKSHOPS

1

BLS Provider course

1st Basic life support course was conducted by the Ceylon College of Critical Care Specialists in January 2023 at the Simulation centre of Colombo East Base Hospital. It included airway assessment, hands on sessions of cardiopulmonary resuscitation, recovery position and few other life saving measures. Both doctors and nurses attended the programme.

4th CREST CRRT Workshop

Supportive therapies for the management of critically ill patients continue to evolve as we gain new knowledge on the pathophysiology of multiorgan failure. Continuous Renal Replacement Therapies continue to define a platform to launch novel methods of extracorporeal support. It is evident that the availability of these versatile techniques offers unprecedented opportunities to influence the outcome of organ failure. We are delighted to announce this one-day programme was conducted for the 4th time to train and update on new advances of AKI, CRRT and the appropriate utilization of these techniques. Our programme presented exciting new developments by way of lectures, interactive sessions, panel discussions and a specialized workshop about this procedure. The session was held on 2 days (for doctors and nurses) at the neurotrauma auditorium of the National hospital of Sri Lanka.

3

Focused intensive care sonography accreditation one-day programme

The first Focused Intensive Care Sonography (FICS) course conducted by the Ceylon college of Critical Care Specialists was held in May 2022 at the Clinical medicine and Research centre of National hospital Sri Lanka. The accreditation course in focused echo in the ICU comprises of a one-day workshop, online learning module with formative assessment, a log book to be completed with 50 echocardiograms and a final triggered assessment. Forty participants who were post graduate trainees, diploma trainees in anaesthesia, critical care medicine joined the workshop. Apart from consultant intensivists who were FICE UK accredited in echocardiography, consultant cardiologists joined as faculty. The programme was a success as witnessed by the positive feedback from the participants. This workshop will be held as an annual event in the 4CS calendar.

4

FCCS – Fundamental Critical Care Support 2023

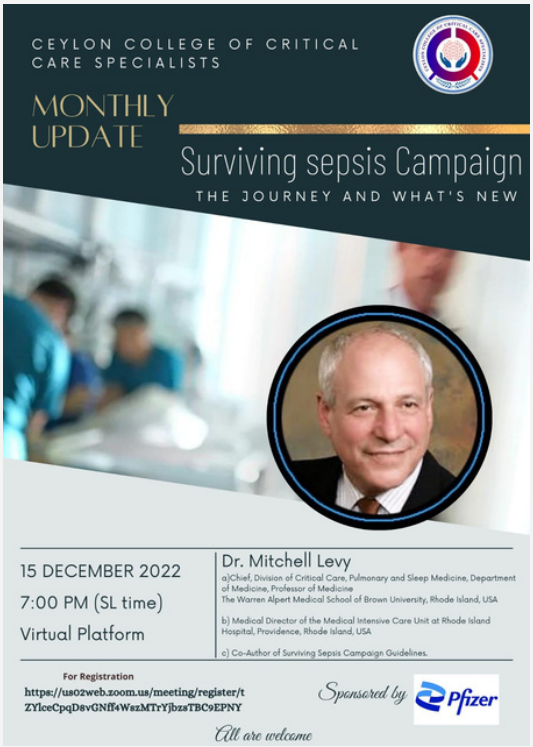
Fundamental Critical Care Support Course was held at the Faculty of Medicine University of Ruhuna as a collaborative event between Ceylon College of Critical Care Specialists and Galle Medical Association on the 26th and 27th of May. This workshop was sponsored by the Society of Critical Care Medicine in the form of a grant awarded to Dr Chamin Weerasekera (Senior Lecturer Faculty of Medicine University of Ruhuna) a member of Ceylon College of Critical Care Specialists. The course director was Dr Michael Waxmann.

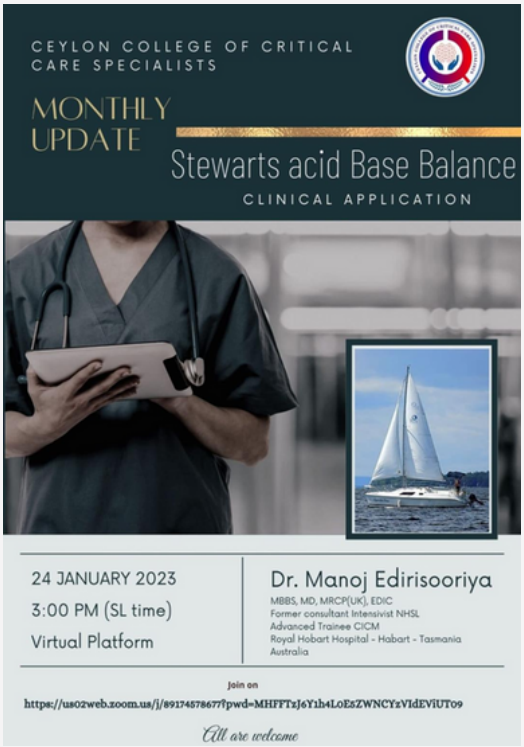
EDUCATIONAL ONLINE WEBINARS

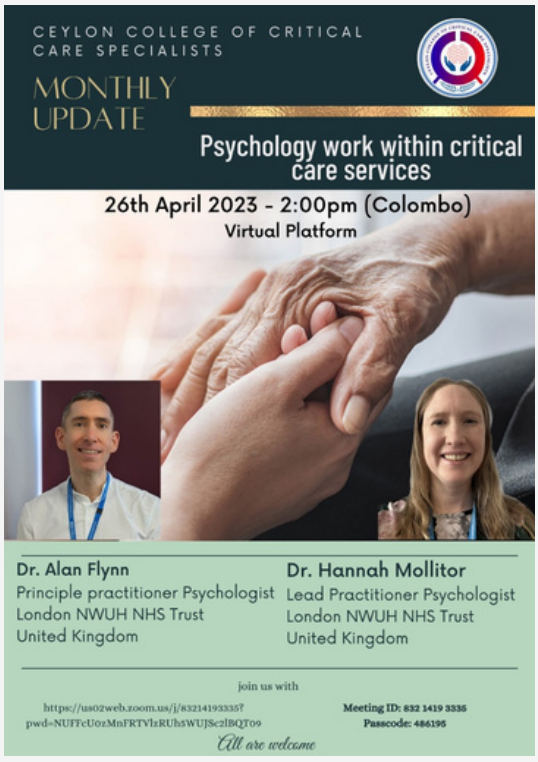
CRITICAL CARE MONTHLY UPDATE

1

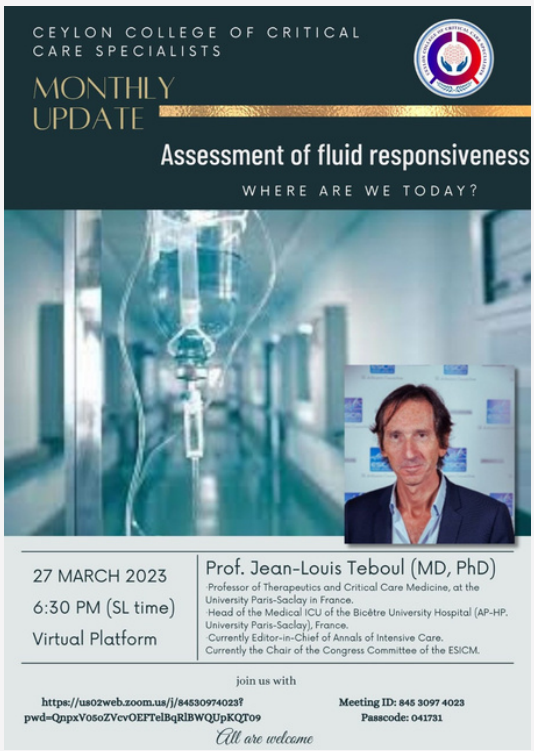
To upgrade the knowledge of intensive care professionals on advancements in critical care medicine, the College conducted monthly updates virtually on selected topics. The college is grateful to Dr Lilanthi Subasinghe for coordinating the sessions.

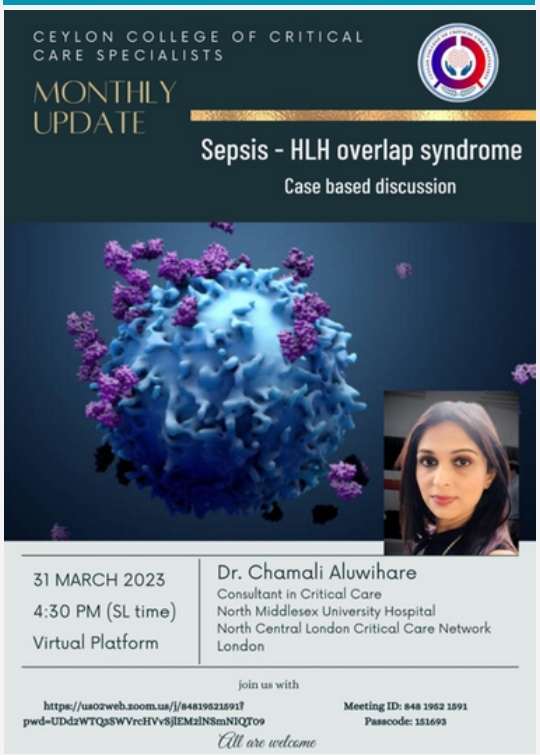





CEYLON COLLEGE OF CRITICAL CARE SPECIALISTS
MONTHLY UPDATE
Psychology work within critical care services
26th April 2023 - 2:00pm (Colombo)
Virtual Platform
Dr. Alan Flynn
Principle practitioner Psychologist
London NWUH NHS Trust
United Kingdom
Dr. Hannah Mollitor
Lead Practitioner Psychologist
London NWUH NHS Trust
United Kingdom
join us with
https://us02web.zoom.us/j/83214193335?pwd=NUFFcU0zMnFRTVlzRUhsWUJSc2lBQT09
Meeting ID: 832 1419 3335
Passcode: 486195
All are welcome


CEYLON COLLEGE OF CRITICAL CARE SPECIALISTS
MONTHLY UPDATE
Acute Kidney Injury
UPDATE ON AKI
10 July, 2023
3:00PM
Virtual Platform
Dr Buddhini Imbulpitiya
MBBS, MD, MRCP, EDIC, MFICM
Senior Clinical Fellow
Queen Alexandra Hospital
Portsmouth, UK
All are welcome
Registration link:
https://us02web.zoom.us/i/87430754142pwd=cGlZdGxCbERCYWpOTnJ3RGlaWWxmZz09


CEYLON COLLEGE OF CRITICAL CARE SPECIALISTS
MONTHLY UPDATE
Assessment of fluid responsiveness
WHERE ARE WE TODAY?
27 MARCH 2023
6:30 PM (SL time)
Virtual Platform
Prof. Jean-Louis Teboul (MD, PhD)
Professor of Therapeutics and Critical Care Medicine, at the University Paris-Saclay in France.
Head of the Medical ICU of the Bicêtre University Hospital (AP-HP, University Paris-Saclay), France.
Currently Editor-in-Chief of Annals of Intensive Care.
Currently the Chair of the Congress Committee of the ESICM.
join us with
https://us02web.zoom.us/j/84530974023?pwd=QnpxV05oZVcvOEFTelBqRlBWQUpKQT09
Meeting ID: 845 3097 4023
Passcode: 041731
All are welcome

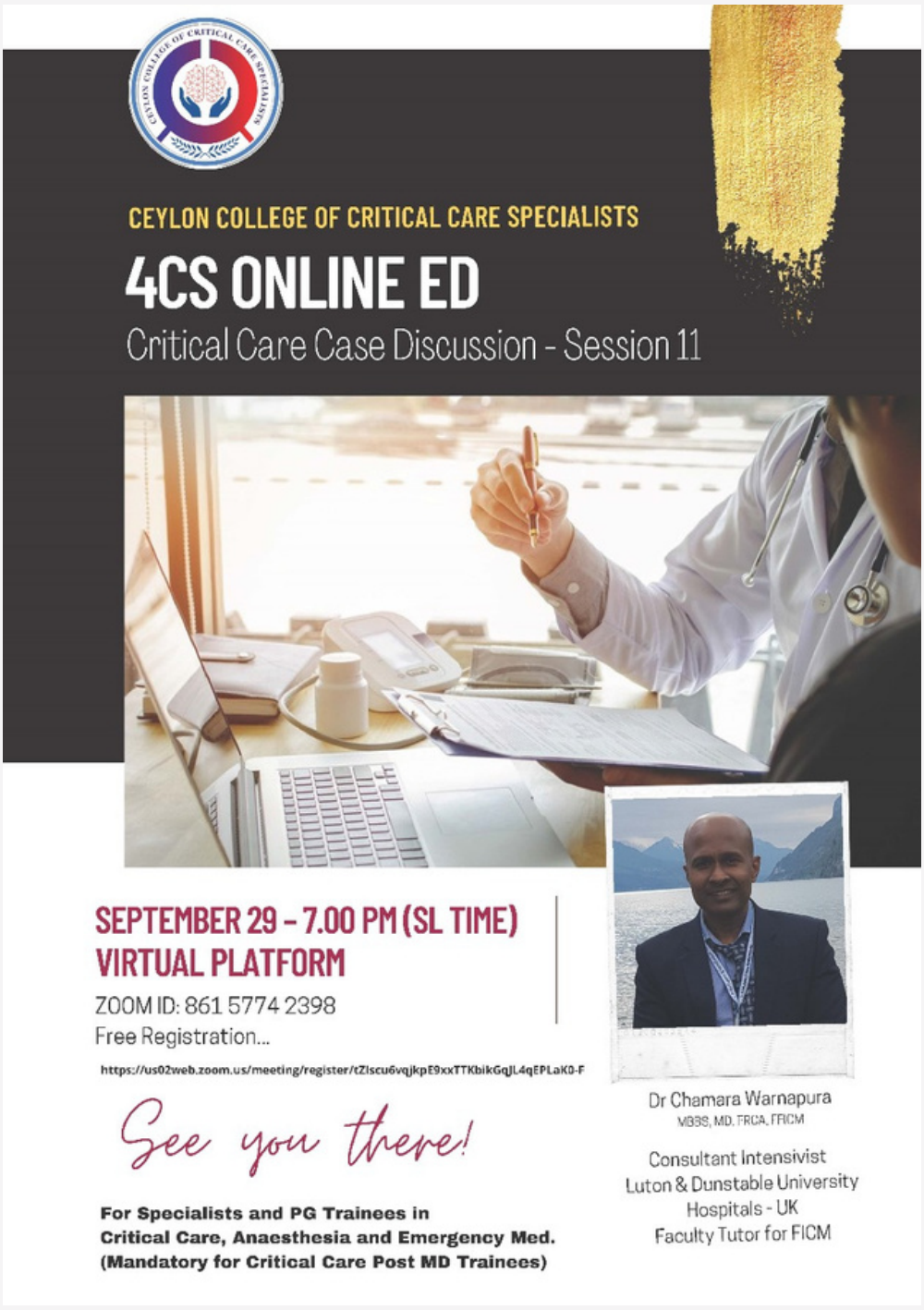

CEYLON COLLEGE OF CRITICAL CARE SPECIALISTS
MONTHLY UPDATE
Sepsis - HLH overlap syndrome
Case based discussion
31 MARCH 2023
4:30 PM (SL time)
Virtual Platform
Dr. Chamali Aluwihare
Consultant in Critical Care
North Middlesex University Hospital
North Central London Critical Care Network
London
join us with
https://us02web.zoom.us/j/84819521591?pwd=UDd2WTQ2SWVrcHVvSjlEM2lNSmNIQT09
Meeting ID: 848 1952 1591
Passcode: 151693
All are welcome

4CS Online Ed – Virtual Training Programme

Ceylon College of Critical Care Specialists highly appreciates the diligent support offered by Dr Chamara Warnapura, Consultant Intensivist of Luton and Dunstable University Hospital for conducting 4CS Online Ed: Virtual Training Program once in two months to enhance and update the knowledge of postgraduate trainees in critical care medicine. The college was able to host 6 sessions for the period. The college is grateful to Dr Waruni Samaranayake for coordinating the sessions.

Month	Topic	Case discussion
September 2022	Liver transplantation	Dr Himanga Benaragama
October 2022	Cryptococcal meningitis (post KT)	Dr U G H Ishan
December 2022	Acute fatty liver in pregnancy	Dr Sunali Nanayakkara
January 2023	Rhabdomyolysis in intensive care	Dr K S Sankar
February 2023	Guillen Barre syndrome complicated with Takotsubo cardiomyopathy	Dr Qanitha Jayah
April 2023	Ileal tuberculosis with refeeding	Dr Rishad Mohamed

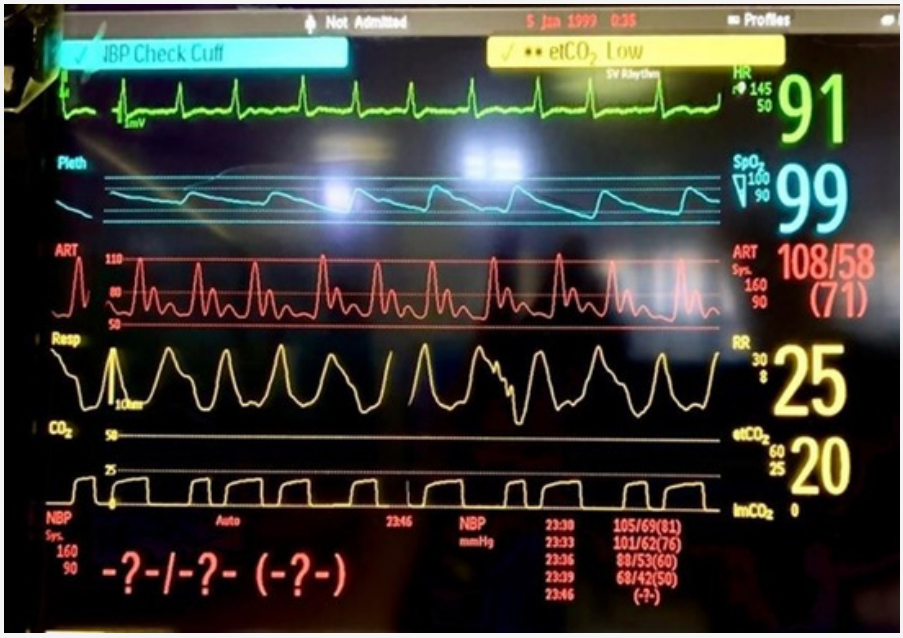
4CS Online Ed – Virtual Training Programme

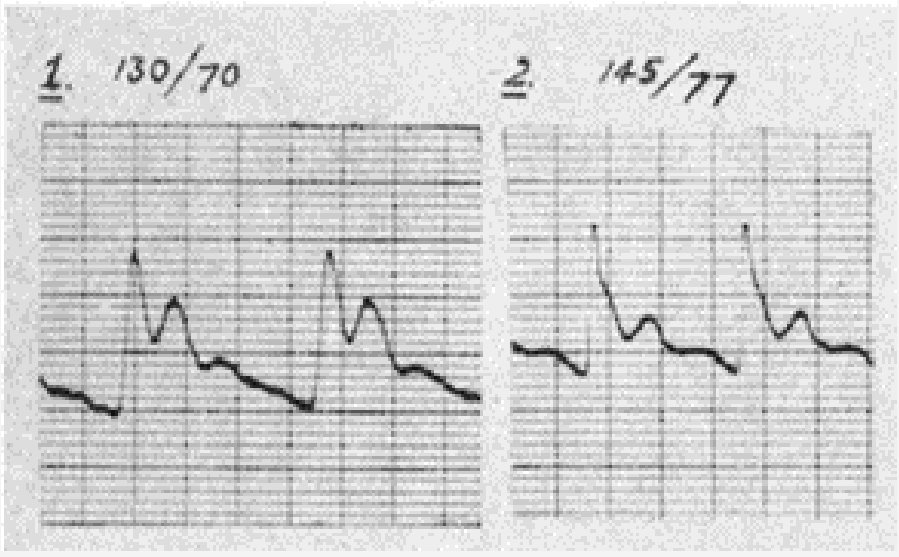


1

Can you guess?

These are parameters observed on a multipara monitor of a patient treated in the ICU. In which situations do you get this arterial line tracing?

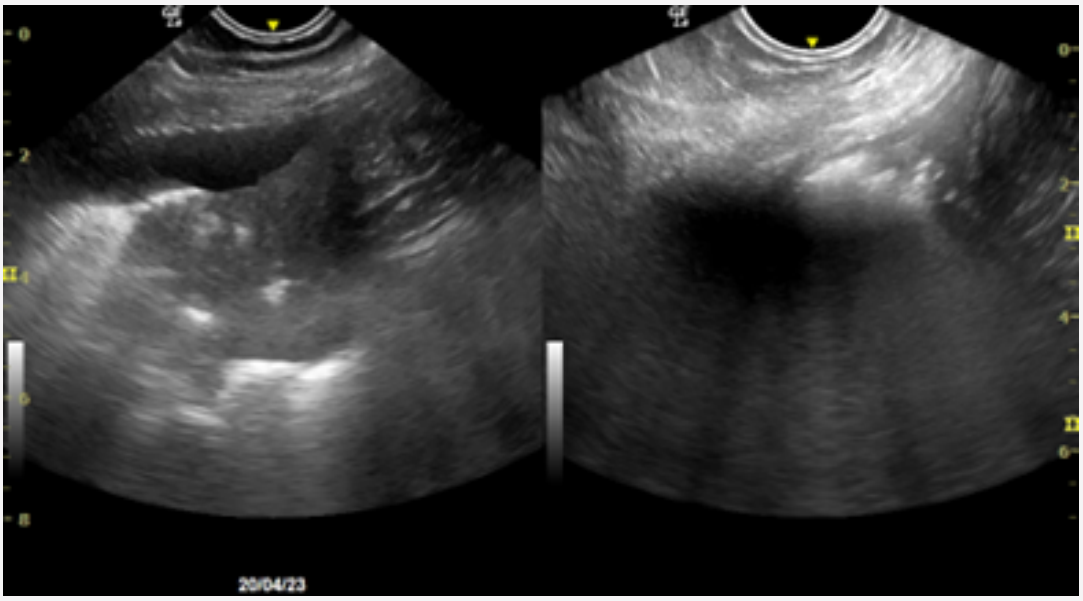




2

Can you guess?

What intervention has led to the change in the lung ultrasound in an ARDS lung (from left to right) 10 minutes later?



A) Increase in PEEP from 5 to 10 cmH_20
B) Use of IV frusemide 40 mg
C) Insertion of an intercostal tube
D) Reduction of tidal volume from 10 to 6 ml/kg

An Interesting Case

Case 1

A Case of Rhabdomyolysis in Dengue

Dr K Shankar (Senior Registrar in CCM)

A 25-year-old male with type 2 diabetes, hypertension, and dyslipidemia was admitted with generalized myalgia, shortness of breath, reduced urine output, and dark color urine for 3 days duration. He was discharged from a private hospital following serology-positive dengue fever before this admission. On admission, he was noted to have generalized limb swelling with tenderness. The findings of the physical examination were otherwise unremarkable. Investigations revealed evidence of rhabdomyolysis and acute renal failure with CPK exceeding 392000 IU and high serum creatinine levels respectively. However, he had good urine output. He was managed with vigorous hydration, and hemodialysis and experienced complete recovery.

Coxsackie virus, influenza A and B, Epstein-Barr virus and HIV are recognised viruses that cause rhabdomyolysis. Rhabdomyolysis in dengue has been rarely reported and the exact pathophysiological mechanism causing dengue rhabdomyolysis still needs to be fully understood. There are assumptions that myotoxic cytokines, such as tumour necrosis factor α (TNFα) and interferon alpha (IFNα), produced during dengue infection are involved in myositis. Treatment of rhabdomyolysis is aimed at enhancing the clearance of myoglobin and managing AKI-related complications such as hyperkalaemia and acidosis. Therefore, the primary management principles of rhabdomyolysis include hydration and maintaining a good urinary flow. Moderate to severe rhabdomyolysis may require 150-200 ml/hour crystalloids to maintain euvolemia and higher urine output (2-3 ml/kg/hour). This poses a challenge in dengue haemorrhagic fever as higher rates of fluid resuscitation may aggravate fluid leakage and contribute to fluid overload. However, our patient didn't show evidence of fluid leak into the serosal cavities, simplifying fluid management.

The incidence of acute renal failure considerably increases the morbidity and mortality of patients with dengue infection. Hence, prompt diagnosis and early management are vital in rhabdomyolysis complicating dengue infection to stop the development of acute renal failure.

An Interesting Case

Case 2

A case of Taktsubo cardiomyopathy in the background of severe dysautonomia in Guillen barre syndrome

Dr Qaanitha Jayah (Senior Registrar in CCM)

We describe a 63-year-old male who presented with a two-day history of progressive bilateral symmetrical lower limb weakness who was diagnosed and treated as Acute Inflammatory Demyelinating Polyneuropathy (AIDP) variant of Guillain-Barré syndrome (GBS) with a course of intravenous immunoglobulins but showed poor response to therapy. On day 15 of hospital stay he developed rapidly fluctuating blood pressures and tachycardia and respiratory distress with ECG findings suggestive of an ST elevation MI and marginally positive high sensitivity troponin levels. He was intubated and transferred to the Intensive Care Unit (ICU) where a diagnosis of takotsubo cardiomyopathy (TC) was made after an urgent coronary angiography with LV angiogram which revealed normal coronary arteries with mid ventricular ballooning. He was managed with 5 cycles of therapeutic plasma exchange and other supportive care and completely recovered his cardiac functions and was discharged from the ICU on day 50 of his illness for further rehabilitation.

GBS is an inflammatory polyneuropathy which classically presents with progressive bilateral lower limb weakness and sensory paresthesia of the peripheral nervous system. Though effects on the peripheral motor nerves are the primary manifestation which may even lead to fatal respiratory muscle weakness, involvement of the sympathetic and parasympathetic nervous systems' peripheral control of visceral organs is also affected by the aberrant immune response. This dysautonomia rarely has been associated with TC, a transient cardiac syndrome that mimics acute coronary syndrome.

An overseas perspective:

Changing the paradigm of ICU in Sri Lanka

Dr Manoj Edirisooriya MBBS, MD, MRCP, EDIC
Consultant Intensivist
Advanced Trainee - Intensive care
Royal Hobart Hospital, Tasmania

Interviewed by Dr Anushka Mudalige MBBS, MD, FRCA, EDIC, FFICM

What are the main areas you feel that need reforms in critical care in Sri Lanka?

First, I would like to thank the president and the council for inviting me for this interview.

We as Sri Lankans can be proud that critical care in Sri Lanka celebrated the Golden Jubilee in 2019 which means we have come a long way. If you look at the rest of the world, field of Intensive care has evolved remarkably over the last few decades, uplifting the outcomes of the critically ill patients. Sri Lanka, as a low middle income country is not that behind with its approach to provide critical care service delivery, though facing numerous challenges as you all know. However, Sri Lanka has taken a huge step forward recognising Intensive care as a separate speciality during the last decade and hence shown a significant progress in the approach to provide critical care service delivery. Still, I feel Sri Lanka has a long way to go in many aspects to be comparable with the developed world. Those include training the staff, particularly the nursing and physiotherapy, strengthening the palliative and end of life care services, exploring a culture sensitive and affordable care delivery framework and more importantly formulating a government policy to co-ordinate the service delivery pathways.

An overseas perspective:
continued..

Compared to high income countries or other countries in the region what are the major hinderances for such change?

If you look at the major ICU paradigm shifts in the developed countries, they were not based on the ground-breaking studies or multicenter randomized trials with positive outcome. It is simply the better understanding of the pathophysiology of critical illness and more precisely the learning from the mistakes and being creative. If you take few examples like shifting from introvert care delivery within ICU to provision of the outreach services to the other departments of the institution, has made the intensive care service utilization efficient. However, in my point of view, lack of funding, research, training and quality medications are the major hindrances to uplift critical care services in Sri Lanka, a country with small economy.

Research in critical care in Sri Lanka is at a quite early, developing stage. How can research be promoted in a country like Sri Lanka?

Well, I may not be the best person to answer this question as my commitment to research is not great. However, if you look at the rest of the world, research arena is moving so fast, and you may witness so many quality papers are published during the last decade. This is vital not only improve the outcomes of critically ill but to adapt service delivery to a setting with limited resources and to find answers which are endemic to our countries for example Leptospirosis and Dengue. Even though the current model of critical care services that we practice was introduced by the western countries, there can be great concerns in your practice. This would partly have been related to the affordability, cultural aspects, disease phenotypes and lack of quality evidence at national level to guide the service delivery. Therefore, research are essential and we should explore and create avenues to improve the outcome of critically ill..

An overseas perspective:
CONTINUED..

Dr Anushka Mudalige during the interview

Regarding the organizational structure of ICU in critical care in Sri Lanka, do you think reforms are needed in this area?

This is another important but unfortunate topic due to various logistics that streamlining critical care service delivery in Sri Lanka remains stagnant for many years. Developed countries found that not only the care delivery, but the outcomes are remarkably improved when you move from open model isolated small ICUs which is commonly seen in Sri Lanka to "closed model" with integrated units run by a minimum of 2-4 dedicated intensivists, depending on the bed strength. So, I believe we also need to step on that path at least to man the ICUs in tertiary hospitals with full time intensivists while other colleagues i.e.; Anaesthesiologists and physicians are collaboratively looking after the rest of the ICUs. In addition, we should aim to have at least 3-5% of hospital beds as ICU/HDU beds to relieve the extreme bed shortage. Next biggest task should be to activate the bed surveillance and quality assessment system, which has been merely a discussion for many years.

Not just in Sri Lanka, but also in other ICUs in the region, we see a lot of western guidelines / protocols being followed. How can this be overcome?

Well, I feel that the principles of treating critically ill, no matter whether they are from western or Asian, medical or surgical etc. are essentially similar in majority of the cases. In which case there wouldn't be much difference in following an evidence-based guideline or protocol. However, I agree with the fact that there are different phenotypes for example in sepsis, which accounts for 70% of the critically ill patients admitted to ICU with circulatory failure, has many facets questioning the validity of western

An overseas perspective:
CONTINUED..

guidelines in this part of the world. We still see that there are updated local guidelines, which are unfortunately not critical care oriented for most of the conditions common in tropics for example Dengue Shock Syndrome. This may partly be due to the lack of quality local trials to formulate guidelines or may be the absence of an efficient quality assessment mechanism at regional level. I suppose the way forward, would be to audit the validity of those orthodox protocols in local settings and to identify the areas that need to be finetuned. Otherwise, planning MRCTs amidst all those hardships including the prevailing economic crisis wouldn't be a reality in the near future.

End of life care- where is Sri Lanka compared to the world? How should it improve?

End of life care is obviously a vital component of not only when you deal with critically ill, but any other branch of medicine. One of the main challenges we face in the ICU duty in Sri Lanka, is delivery of futile care wasting extremely limited resources as there is a great uncertainty regarding potential consequences of withdrawing or withholding inappropriate escalation. A group of motivated and I would say brave doctors led by the Sri Lanka Medical Association in 2016, laid the foundation to formulate a comprehensive guideline or a protocol to bring all the specialties to one table and discuss this complex topic. I hope further legal proceedings are in progress currently to finalise some of the aspects with legal proceeding. Additionally, palliative care pathway is another area that we have to improve on.

Education and training- what is the minimal level of training required for all levels of staff working in ICUs in Sri Lanka?

It is a very important question, particularly when you are working in a resource limited setting. It is hard to define the level of training required as there is extremely limited access to such training. I feel that, while establishing

An overseas perspective:
CONTINUED..

or strengthening graduate level education for other staff categories, for example nursing and physiotherapy colleagues, we should explore ways to retain them in the system once they are qualified. One of the best strategy is to collaborate with our regional giant , India that we already have initiated. I doubt whether authorities have recognized this as a priority which needs to be addressed to uplift care delivery services specially in acute care sector.

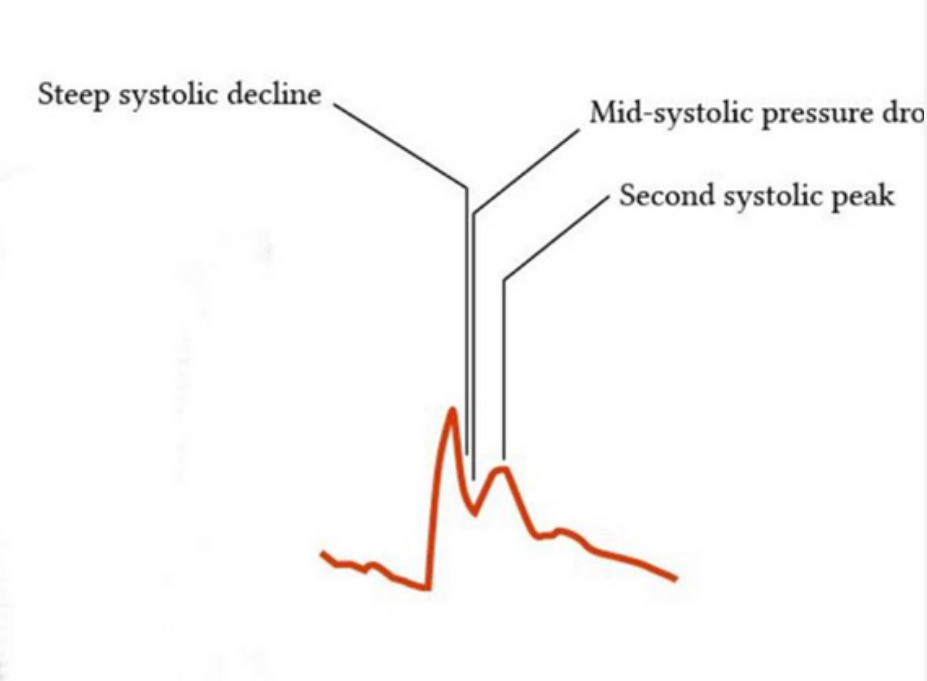
Anything else that can be improved/ changed in Intensive Ccare in Sri Lanka?

I would like to see that Intensive Care working culture remodeled more towards a team-based approach rather than mere consultant lead management. Still, we must go a long way to get there as there are many aspects that has be revolutionised. Firstly, I believe that nursing and physiotherapy colleagues need more focused critical care education/ training and then only, empowering them would be a reality. One of the other aspects is to extend our services beyond the wall of critical care that is outreach services. Quality of the medication specially the antibiotics matters significantly for ICU. Furthermore, Sri Lanka needs 1 or 2 ECMO centres, before thinking about heart lung transplants, and they should essentially be based on critical care units. Finally, I think we need to work hard towards sustainability of these limited resources, being a country struggling with so many other issues like crippling economy.

Answers to the quiz: Can you guess?

1

A typical arterial tracing of a patient with hypertrophic obstructive cardiomyopathy.



2

Increase of PEEP from 5 to 15 cmH_2O

4CS BULLETIN

The Newsletter of Ceylon College of Critical Care specialists