PHYSICAL MEETING

ASMIC 2022

ANNUAL SCIENTIFIC MEETING ON INTENSIVE CARE

8th to 11th September 2022

Shangri-La Hotel, Kuala Lumpur
Malaysia

Supported by

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(Updated on 5th December 2022)

www.msic.org.my

ORGANISING COMMITTEE

Dr Louisa Chan Yuk Li *(Chairperson)*
Dr Tang Swee Fong
Dr Noor Airini Ibrahim
Associate Professor Dr Gan Chin Seng
Dr Premela Naidu Sitaram
Dr Nahla Irtiza Ismail
Dr Lavitha Vyveganathan

INVITED SPEAKERS

Australia
Emma Bowcock

Canada
Deborah Cook

Hong Kong
Ellis Hon Kam Lun

India
Arun Bansal
Arunaloke Chakrabarti

Italy
Tommaso Mauri

Japan
Tomoko Fujii
Satoshi Nakagawa

Lebanon
Mohamad Ejel

Singapore
Chan Yeow
Faheem Ahmed Khan
Matthew Cove
Manish Kaushik
Lee Jan Hau
Jacqueline Ong
Yeo Tsin Wen

Spain
Antoni Torres

Thailand
Rujipat Samransamruajkit

The Netherlands
Jozef Kesecioglu

United Kingdom
Tasneem Pirani
Samiran Ray
Kathleen Thomas
Adrian Wong

Vietnam
Phan Huu Phuc

Malaysia

Ahmad Sobri Muda
Aida Abdul Aziz
Aizad Azahar
Anis Siham Zainal
Asmah Zainudin
Azmin Huda Abdul Rahim
Chong Jia Yueh
Chor Yek Kee
Faizatul Izza Rozalli
Foong Kit Weng
Goh Ching Yan
Ismail Tan Mohd Ali Tan
Juita Hassan
Julie Razak
Kang Ker Cheah
Khairul Azmi Abd Kadir
Erwin Khoo
Lavitha Vyveganathan
Lee See Pheng
Lim Chew Har
Looi Chui Li
Mohd Ashraf Zulkurnain
Mohd Basri Mat Nor
Mohd Ridhwan Md Noor
Noryani Mohd Samat
Ouzreiah Nawawi
Pazlida Pauzi
Poh Yeh Han
Pon Kah Min
Pravin A/L Sagunan
Rafidah Abdullah
Rafidah Atan
Ridzuan Mohd Isa
Seethal Padmanathan
Shanti Rudra Deva
Soo Kok Wai
Suneta Sulaiman
Suresh Kumar
Tai Chian Wern
Tang Swee Ping
Vineya Rai
Yap Tsao Ling

WELCOME MESSAGE

A warm welcome to all from near and far.

It is good to be back for a physical meeting. How we take for granted the simple pleasures of chatting, collaborating and exchanging news with friends, colleagues, speakers and experts as well as with the pharmaceutical industry. As such we hope you have a great time in ASMIC 2022.

The scientific programme was crafted to encompass a broad range of ICU related topics for adult and paediatric patients. We will have our local experts and intensivists from abroad sharing their knowledge with us. We have added a running reel room feature that plays prerecorded lectures throughout the day - which are meant to be both inspirational and instructive. Friday's reel room will feature noble and exceptional work by ICU staff from 4 different places of the world, and Saturday's will feature a radiology blitz by local experts suitable for trainees and anyone interested in a quick refresher.

The Organising Committee has decided to make this meet 'extra special'. We acknowledge the travails of the last 2 years during the COVID-19 pandemic. It has been painful and frightening for many but it also promoted growth, courage and a renewed sense of self and team-work. Hence, the video competition 'Thanking the Stars - The ICU Heroes' is one way for us all to give voice and expression to those trying times. We were moved by the efforts that went into 15 video submissions. Every video was a winner unto itself.

Sepsis has been the number one cause of ICU admissions here in Malaysia. And in conjunction with the World Sepsis Day, we are holding our own version of Explorace. Race till you win with your friends and have some fun while learning about sepsis.

We, the Organising Committee, are indeed indebted to all the registrants for their continuous support, to the pharmaceutical industry for their keen participation, and the dedication of the secretariat. May you all have a fruitful and pleasant time at ASMIC 2022.

Dr Louisa Chan Yuk Li
Organising Chairperson
Annual Scientific Meeting on Intensive Care 2022

PROGRAMME SUMMARY

Date / Time	9th September 2022 (Friday)	10th September 2022 (Saturday)	11th September 2022 (Sunday)
0800 - 0830	Registration	0745 - 0900 Coffee with the Expert 1 | 2	0745 - 0900 Coffee with the Expert 3 | 4
0830 - 0900			
0900 - 0930	PLENARY 1	PLENARY 2	PLENARY 4
0930 - 1000	OPENING CEREMONY	PLENARY 3	PLENARY 5
1000 - 1030		Tea / Trade Exhibition	PLENARY 6
1030 - 1100	Tea / Trade Exhibition	Tea Satellite Symposia 2A | 2B	Prize-Giving Ceremony; Tea / Trade Exhibition
1100 - 1130	SYMPOSIA 1 | 2 | 3; Running Reel	SYMPOSIA 7 | 8 | 9; Running Reel	SYMPOSIA 13 | 14 | 15
1130 - 1200			
1200 - 1230			
1230 - 1300	Lunch / Friday Prayers / Trade Exhibition		
1300 - 1330		Lunch Satellite Symposium 1 | Official Poster Round	Lunch
1330 - 1400			
1400 - 1430			
1430 - 1500	SYMPOSIA 4 | 5 | 6	SYMPOSIA 10 | 11 | 12	
1500 - 1530			
1530 - 1600			
1600 - 1630	Tea Satellite Symposia 1A | 1B		
1630 - 1700		Tea Satellite Symposium 3; Tea / Trade Exhibition	
1700 - 1730	T Sachithanandan Oral Free Paper Presentation	Annual General Meeting of the Malaysian Society of Intensive Care	
1730 - 1800			
1800 - 1830	Tea / Trade Exhibition		

PRE-CONGRESS WORKSHOP
8th September 2022 (Thursday)

1. Renal Support for the Critically Ill Child

Venue: Sarawak Room, Basement II

Coordinators: Tang Swee Fong / Gan Chin Seng

Number of seats: 36 (only for doctors)

Registration fee: RM 400 per participant

Programme

0800 - 0830	Registration
0830 - 0845	Welcome
0845 - 0915	AKI - Definitions and epidemiology *Pon Kah Min*
0915 - 0945	Applied physiology *Anis Siham Zainal*
0945 - 1015	AKI *Chor Yek Kee*
1015 - 1045	Break
1045 - 1115	Peritoneal dialysis *Selva Kumar Sivapunniam*
1115 - 1145	CRRT - Principles and modalities *Chor Yek Kee*
1145 - 1215	Total Plasma Exchange *Lee Pei Chuen*
1215 - 1400	Lunch
1400 - 1700	Station 1: CRRT - choice of modality prescription *Chor Yek Kee*
	Station 2: CRRT - troubleshooting *Pon Kah Min / Anis Suham Zainal*

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

	Station 3: TPE - prescribing and trouble shooting *Lee Pei Chuen*
	Station 4**:** Peritoneal dialysis - practical aspects *Selva Kumar Sivapunniam*
1700	End of programme and break

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

2. The Art and the Science of Haemodynamic Monitoring for Nurses

Venue: Johor Room, Lower Lobby

Coordinator: Nahla Irtiza

Number of seats: 60

Registration fee: RM 150 per participant

Programme

0800 - 0830	Registration
0830 - 0900	Pre test
0900 - 0905	Monitoring of the critical ill - Introduction *Azmin Huda Abdul Rahim*
0905 - 0935	**PART I** Haemodynamic monitoring: What the nurse should know *Siti Rohayah Sulaiman*
0935 - 0955	**PART II** Haemodynamic monitoring: What the nurse should know *Siti Rohayah Sulaiman*
0955 - 1025	The ABC's of the ventilatory parameters *Azmin Huda Abdul Rahim*
1025 - 1045	Break
1045 - 1100	Monitoring of patients on NIV *Wan Nasrudin Wan Ismail*
1100 - 1130	Capnometry dan pulse oximetry *Nahla Irtiza Ismail*
1130 - 1140	Intraabdominal pressure montoring: Nurses role *Siti Rohayah Sulaiman*

PRE-CONGRESS WORKSHOP
8th September 2022 (Thursday)

1140 - 1200	Neurological monitoring: The essentials *Nahla Irtiza Ismail*
1200 - 1230	Alarms in ICU: Is it important? *Wan Nasrudin Wan Ismail*
1230 - 1400	Lunch
1400 - 1430	**SKILL STATION 1** Case scenario: Asthma *Azmin Huda Abdul Rahim*
1430 - 1500	**SKILL STATION 2** Case scenario :Pneumonia *Wan Nasrudin Wan Ismail*
1500 - 1530	**SKILL STATION 3** Case scenario: Septic shock *Siti Rohayah Sulaiman*
1530 - 1600	**SKILL STATION 4** Case scenario: Polytrauma *Nahla Irtiza Ismail*
1600 - 1700	Post test and conclusion

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

3. ECMO for Respiratory Failure

Venue: Melaka Room & Perak Room, Basement II

Coordinator: Premela Naidu

Number of seats: 40 (specialists only)

Registration fee: RM 500 per participant

Programme (Morning Session)

Time	Session
0800 - 0830	Registration
0830 - 0845	Introduction and housekeeping rules *Premela Naidu*
0845 - 0920	Pre-test MCQ
0920 - 0940	ECMO overview - History and basic principles *Matthew Cove*
0940 - 1000	ECMO circuit and equipment
1000 - 1030	Break
1030 - 1050	ECMO physiology *Matthew Cove*
1050 - 1110	VV-ECMO for respiratory failure: Initiation and cannulation *Matthew Cove*
1110 - 1130	Clinical Management during VV-ECMO *Ali Ait Hssain*
1130 - 1150	VV ECMO emergencies and outcome *Ali Ait Hssain*
1150 - 1210	Weaning off and de-cannulation *Ali Ait Hssain*
1210 - 1330	Lunch

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

Programme (Afternoon Session)

1330 - 1400	Station 1: Knobology *Matthew Cove*
1400 - 1430	Station 2: Monitoring of ECMO circuit *Nathaneal Foong*
1430 - 1500	Station 3: Major Crises: Scenario 1 *(Case discussion)* *Ali Ait Hssain*
1500 - 1530	Station 4: Major Crises: Scenario 2 *(Case discussion)* *Juita Hassan*
1530 - 1600	Break
1600 - 1630	Post- Test
1630	End

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

4. End-of-Life Care Workshop

Venue: Kedah Room, Basement II + Board Rooms, Mezzanine Floor

Coordinator: Noor Airini Ibrahim

Number of seats: 40 (only for doctors)

Registration fee: RM 300 per participant

This one-day workshop is intended for doctors who wish to develop skills and knowledge to deliver compassionate high quality end-of-life (EOL) care for their patients. It is an opportunity to learn and share views on how care in the last days of life may be improved. The workshop will include lectures, case discussions and role play.

The aims of this workshop are to improve:
- Competency in providing quality EOL care
- Knowledge in various aspects related to EOL decisions
- Communication skills in EOL care
- The dying experience for families and healthcare providers

Programme

0800 - 0815	Registration
0815 - 0830	Pre-test
0830 - 0855	Death and dying in the critically ill *Louisa Chan Yuk Li*
0855 - 0920	Ethical and legal issues at end of life *Tai Li Ling*
0920 - 0950	Making end of life decisions *Shanti Rudra Deva*
0950 - 1020	Withdrawal and withholding of therapy *Ahmad Shaltut Othman*
1020 - 1050	Tea
1050 - 1105	Conflicts *Laila Kamaliah Kamalul Baharin*
1105 - 1135	Practical aspects of end of life care *Noor Airini Ibrahim*

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

1135 - 1220	Communication skills *Noor Airini Ibrahim*
1220 - 1230	Question and answers
1230 - 1300	Case discussion / role play
1300 - 1400	Lunch
1400 - 1430	Case discussion / role play
1430 - 1500	Case discussion / role play
1530 - 1600	Case discussion / role play
1600 - 1630	Post-test and feedback
1630 - 1645	Tea

Case Discussion 1: Shanti Rudra Deva
Case Discussion 2: Laila Kamaliah Kamalul Bahrain
Case Discussion 3: Tai Li Ling
Role Play: Ahmad Shaltut Othman / Muhd Fikri Ahmad / Nur Syazana Mohd Zamri

PRE-CONGRESS WORKSHOP
8th September 2022 (Thursday)

5. Best Practices in Organ Donation

Venue: Selangor 1, Basement II

Coordinator: Premela Naidu, Yap Mei Hoon

Number of seats: 40

Registration fee: RM 300 per participant (for doctors)
RM 150 per participant (for nurses)

Programme

0800 - 0820	Registration
0820 - 0830	Welcome address and announcements *Yap Mei Hoon*
0830 - 0900	ODISSEA in Malaysia: The Odissey *Muhammad Iqbal Abdul Hafidz*
0900 - 0930	Opt in vs Opt out system in organ donation *Muhammad Iqbal Abdul Hafidz*
0930 - 1000	Overview of organ and tissue donation process: Beyond coordination *Hasdy Haron*
1000 - 1030	Break
1030 - 1100	Medicolegal aspects in organ donation: Against all odds *Hasdy Haron*
1100 - 1130	Critical pathway for organ donation: Semantically correct *Adlin Dasima Abdul Kadir*
1130 - 1200	Death by neurologic critieria: The tools of the trade *Yap Mei Hoon*
1200 - 1230	Intensive care for organ preservation: A four stage pathway *Adlin Dasima Abdul Kadir*
1230 - 1400	Lunch

PRE-CONGRESS WORKSHOP

8th September 2022 (Thursday)

1400 - 1430	Challenges in organ donation conversation: It's not taboo *Mohamad Zaimi Abd Wahab*
1430 - 1500	Non therapeutic elective ventilation in organ donation: A necessary strategy? *Yap Mei Hoon*
1500 - 1530	DCD: Are we ready? *Koong Jun Kit*
1530 - 1600	Break
1600 - 1630	Organ retrieval and preservation: Era of dynamic intervention *Koong Jun Kit*
1630 - 1700	Managing the solid organ transplant recipient: TLC *Mohamad Zaimi Abd Wahab*
1700	End

DAILY PROGRAMME

9th September 2022 (Friday)

0800 - 0900 Registration

0900 - 0930 **PLENARY 1** *Sabah*
Chairperson: ***Shanti Rudra Deva***
The Field ICU: Translating this experience for the future
Mohd Ridhwan Md Noor

0930 - 1015 **OPENING CEREMONY**

1015 - 1100 Tea / Trade Exhibition

1100 - 1240 *Sabah*	1100 - 1240 *Johor*	1100 - 1240 *Sarawak*	1100 - 1215 *Melaka*
SYMPOSIUM 1 ***COVID -19 Pandemic*** **Chairpersons:** ***Rafidah Atan / Kang Ker Cheah*** COVID-19 pandemic - The Malaysian ICU experience *Lim Chew Har* COVID-19 ARDS - What we know (and don't know) now *Tommaso Mauri* ACLS in the era of covid - New norms or status quo *Ridzuan Mohd Isa* Triage in ICU during COVID 19 pandemic - Consistency vs controversy *Jozef Kesecioglu*	**SYMPOSIUM 2** ***Intensive Care for Nurses I*** **Chairperson:** ***Lavitha Vyveganathan*** The delirious critically ill patient - Lets make it better for them *Seethal Padmanathan* Sepsis understanding and guidelines - What's new *Lavitha Vyveganathan* Meticulous care of your central venous catheters *Looi Chui Li* The patient on CRRT - Some important pointers to ensure patient safety *Poh Yeh Han*	**SYMPOSIUM 3** ***Paediatric: : Sepsis and Cardiac*** **Chairperson:** ***Tai Chian Wern*** Do we need a new paediatric sepsis definition? *Phan Huu Phuc* Implementing the new Paediatric Surviving Sepsis Guidelines *Rujipat Samransamruajkit* Haemodynamic monitoring in the critically ill child - where are we? *Arun Bansal* Right ventricular dysfunction and pulmonary hypertension *Soo Kok Wai*	**RUNNING REEL** ***ICUs from Around the World - Be Inspired*** 3 Wishes Project *Deborah Cook* Where the home meets ICU *Emma Bowcock* La vita è bella - Helping ventilator users leave the ICU and live… *Chan Yeow* Oh S***!They're bombing our hospital *Kathleen Thomas* 'Thanking our stars: The ICU heroes' *(Video competition entries)*

1240 - 1430	1300 - 1430 *Melaka*
Lunch / Friday Prayers / Trade Exhibition	**RUNNING REEL REPLAY**

DAILY PROGRAMME
9th September 2022 (Friday)

1430 - 1610 *Sabah*

SYMPOSIUM 4
Respiratory

Chairpersons:
Foong Kit Weng / Gaithridevi V Singam

Non-Invasive therapy in hypoxemic respiratory failure - Pushing the boundaries
Tommaso Mauri

Extubation protocols - Is it effective and safe?
Lee See Pheng

Lung recruitment strategies - All for one, one for all?
Juita Hassan

ECMO in hypoxaemic failure - What is the current evidence
Matthew Cove

1430 - 1610 *Johor*

SYMPOSIUM 5
Sepsis

Chairpersons:
Asmah Zainudin / Julie Razak

Surviving Sepsis 2021 - Key changes and upcoming areas of research
Lavitha Vyveganathan

Corticosteroid use in septic shock - Do we have trial biases
Jozef Kesecioglu

The multivitamin shot in sepsis - Is it really a magic bullet?
Tomoko Fujii

Microvascular and cardiac complications in adult dengue
Yeo Tsin Wen

1430 - 1610 *Sarawak*

SYMPOSIUM 6
Paediatric: Transport Medicine - Bringing the Child to Your Unit

Chairperson:
Pazlida Pauzi

Who should do the transport: Retrieval teams vs local teams
Pon Kah Min

How should it be done: Choosing the most appropriate mode
Tai Chian Wern

Interhospital transfer: How to do it safe
Pravin A/L Sagunan

Transporting the child with SARS-COV-2
Yap Tsao Ling

1430 - 1630 *Melaka*

RUNNING REEL REPLAY
ICUs from Around the World - Be Inspired

3 Wishes Project
Deborah Cook

Where the home meets ICU
Emma Bowcock

La vita è bella - Helping ventilator users leave the ICU and live…
Chan Yeow

Oh S***!They're bombing our hospital
Kathleen Thomas

'Thanking our stars: The ICU heroes' *(Video competition entries)*

1615 - 1700 *Sabah*

Tea Satellite Symposium 1A
(Sanofi-Aventis)

VTE prophylaxis in ICU: LMWH the preferred choice?
Vineya Rai

1615 - 1700 *Sarawak*

Tea Satellite Symposium 1B
(Medik-Link)

Chairperson: ***Maryam Budiman***

Managing weaning in ICU with airway clearance devices
Noryani Mohd Samat

Balance of flow and improve lung recruitment during anaesthesia
Mohamad Ejel

1700 - 1800	T Sachithanandan Oral Free Paper Presentations	*Melaka*
1800 - 1830	Tea / Trade Exhibition	

DAILY PROGRAMME
10th September 2022 (Saturday)

0745 - 0900 *Penang*	0745 - 0900 *Johor*
COFFEE WITH THE EXPERT 1	COFFEE WITH THE EXPERT 2 *(Paediatric)*
Moderator: ***Gaithridevi V Singam***	**Moderator:** ***Tang Swee Fong***
Let's start feeding our patients better	MIS-C: What more can I do?
Shanti Rudra Deva	*Anis Siham Zainal*

0900 - 0930 **PLENARY 2** *Sabah*

Chairperson: ***Mohd Ridhwan Md Noor***

The mega Mega-ROX study

Tomoko Fujii

0930 - 1000 **PLENARY 3** *Sabah*

Chairperson: ***Mohd Ridhwan Md Noor***

PEEP, the things we forgot to remember

Matthew Cove

1000 - 1030 Tea / Trade Exhibition

1030 - 1115 *Sabah*	1030 - 1115 *Sarawak*
Tea Satellite Symposium 2A *(Pfizer)*	**Tea Satellite Symposium 2B** *(Philips)*
	Chairperson: ***Ismail Tan Mohd Ali Tan***
Diagnosing & effectively mould disease in ICU: Current options and new opportunities	Smart filtering of alerts with reduction in cardiac arrest
Arunaloke Chakrabarti	*Faheem Ahmed Khan*

DAILY PROGRAMME
10th September 2022 (Saturday)

1115 - 1255 *Sabah*	1115 - 1255 *Johor*	1115 - 1255 *Sarawak*	1100 - 1200 *Melaka*
SYMPOSIUM 7 ***Nephrology*** **Chairperson:** ***Nahla Irtiza / Gaithridevi V Singam*** Do we have the answers: When to start dialysis in ICU *Goh Ching Yan* Metabolic acidosis: Just how useful is sodium bicarbonate *Tomoko Fujii* Moving away from one filter fits them all *Manish Kaushik* Palliative care in End Stage Renal Failure patients - A nephrologist's perspective *Rafidah Abdullah*	**SYMPOSIUM 8** ***Intensive Care for Nurses II*** **Chairperson:** ***Mohd Ashraf Zulkurnain*** The challenges in caring for the covid patient *Kang Ker Cheah* All you need to know about nursing the patient in prone position *Mohd Ashraf Zulkurnain* Mobilization in ICU - Time to improve patient outcomes *Julie Razak* Enteral nutrition - The many aspects of feeding *Aizad Azahar*	**SYMPOSIUM 9** ***Paediatric: GIT, Liver & Metabolic*** **Chairpersons:** ***Gan Chin Seng / Pravin A/L Sagunan*** Nutrition and the microbiome in critically ill children *Lee Jan Hau* Managing the child with hepatic encephalopathy *Satoshi Nakagawa* Perioperative management of paediatric liver transplantation *Jacqueline Ong* Acute care of critically ill children with Inborn errors of metabolism *Ellis Hon Kam Lun*	**RUNNING REEL** ***Radiology Blitz*** Brain *Ahmad Sobri Muda* Thorax *Aida Abdul Aziz* Abdomen *Ouzreiah Nawawi* Spine / Musculoskeletal *Faizatul Izza Rozalli* 'Thanking our stars: The ICU heroes' *(Video competition entries)*

DAILY PROGRAMME
10th September 2022 (Saturday)

1300 - 1400 *Sabah*	1300 - 1430 *Johor*	1300 - 1430 *Melaka*
Lunch Satellite Symposium 1 *(Pfizer)* Managing difficult-to-treat resistant pseudomonas aeruginosa and CRE infections in ICU and the role of ceftazidime-avibactam *Antoni Torres*	**Official Poster Round**	**RUNNING REEL REPLAY**

1430 - 1610 *Sabah*	1430 - 1610 *Johor*	1430 - 1610 *Sarawak*	1430 - 1610 *Melaka*
SYMPOSIUM 10 ***Fluids and Haemodynamics*** **Chairpersons:** ***Azmin Huda Abdul Rahim / Seethal Padmanathan*** Fluids for all occasions - Lets just talk about choosing the right type! *Adrian Wong* Vasopressors, inotropes and fluids - The importance of timing *Mohd Basri Mat Nor* Fluids in DKA *Adrian Wong* Echocardiography in fluid management - Common pitfalls *Foong Kit Weng*	**SYMPOSIUM 11** ***Liver Failure in ICU*** **Chairpersons:** ***Premela Naidu / Chin Yi Zhe*** Current best practices for managing critically ill acute liver failure patients *Tasneem Pirani* Coagulopathy in liver failure *Asmah Zainudin* Renal support in liver failure - Key points to consider *Manish Kaushik* Chronic liver disease for the Intensivist *Tasneem Pirani*	**SYMPOSIUM 12** ***Paediatric: SARS-COV-2*** **Chairperson:** ***Chong Jia Yueh*** SARS-COV-2 in children in ICU *Samiran Ray* Management of MIS-C: The best evidence *Arun Bansal* Immunotherapy in SARS-COV-2: When and how to use it? *Tang Swee Ping* Did the SARS and H1N1 epidemics prepare us for paediatric SARS-COV-2 in Hong Kong? *Ellis Hon Kam Lun*	**RUNNING REEL REPLAY** ***Radiology Blitz*** Brain *Ahmad Sobri Muda* Thorax *Aida Abdul Aziz* Abdomen *Ouzreiah Nawawi* Spine / Musculoskeletal *Faizatul Izza Rozalli* 'Thanking our stars: The ICU heroes' *(Video competition entries)*

1615 - 1645 *Sabah*
Tea Satellite Symposium 3 *(Medtronic)* Optimising cerebral perfusion in the ICU *Suneta Sulaiman*

1645 - 1700 Tea / Trade Exhibition

1700 - 1830 **Annual General Meeting of the Malaysian Society of Intensive Care** *Melaka*

DAILY PROGRAMME
11th September 2022 (Sunday)

0745 - 0900 *Penang*	0745 - 0900 *Johor*
COFFEE WITH THE EXPERT 3	COFFEE WITH THE EXPERT 4 *(Paediatric)*
Moderator: ***Poh Yeh Han***	**Moderator:** ***Gan Chin Seng***
Post cardiac arrest care	When there is no urine….
Ismail Tan Mohd Ali Tan	*Chong Jia Yueh*

0900 - 0930 **PLENARY 4** *Sabah*
Chairperson: ***Tang Swee Fong***
Understanding respiratory drive in each patient
Tommaso Mauri

0930 - 1000 **PLENARY 5** *Sabah*
Chairperson: ***Tang Swee Fong***
The ideal oxygen target in critically ill children: have we found it?
Samiran Ray

1000 - 1030 **PLENARY 6** *Sabah*
Chairperson: ***Tang Swee Fong***
Covid-19: How we fared and hard lessons learnt
Suresh Kumar

1030 - 1045 **Prize Giving Ceremony**
T Sachithanandan Best Paper Presentation
Best Poster Award
‘Thanking Our Stars - The ICU Heroes!’
‘World Sepsis Day - Explorace’

1045 - 1115 Tea / Trade Exhibition

DAILY PROGRAMME
11th September 2022 (Sunday)

1115 - 1255 *Sabah*	1115 - 1255 *Johor*	1115 - 1255 *Melaka*
SYMPOSIUM 13 *Neurosciences* **Chairpersons:** ***Mohd Basri Mat Nor / Yap Mei Hoon*** Sedation in ICU: New frontiers *Rafidah Atan* Depression in the critically ill - Tip of the iceberg *Azmin Huda Abdul Rahim* Cerebral oedema in Acute Liver failure - How we can make a difference *Tasneem Pirani* Key advances in Interventional Radiology for acute cerebral vascular events - Updates for the Intensivists *Khairul Azmi Abd Kadir*	**SYMPOSIUM 14** *Organisation / Ethics* **Chairpersons:** ***Noor Airini Ibrahim / Chin Yi Zhe*** Disclosing medical errors: Fear vs safety *Jozef Kesecioglu* Expensive Care: Choosing between potentially lifesaving and depleting resources *Erwin Khoo* Small steps, big gains: Reducing burnouts in your unit *Adrian Wong* Palliative Care in ICU: Are four principals of ethics enough? *Jozef Kesecioglu*	**SYMPOSIUM 15** *Paediatric: Respiratory* **Chairperson:** ***Lee Pei Chuen*** Point of care ultrasound in the PICU *Chor Yek Kee* Has SARS-COV-2 changed the way we ventilate children with PARDS? *Satoshi Nakagawa* HFNC or CPAP for initial therapy in respiratory failure? *Samiran Ray* Post-extubation stridor: can we prevent it? *Pazlida Pauzi*

1300 - 1400 Lunch *Sarawak*

VIDEO COMPETITION

The ASMIC Organising Committee calls for submission of videos for the inaugural video competition. The theme is **"Thanking Our Stars - The ICU Heroes!"** and this will be a tribute to the frontliners who have and are still fighting against the COVID-19 pandemic.

You may like to share your memorable experiences of the past two years as you work tirelessly with your fellow colleagues. You may choose to recall certain events or interactions with colleagues and the public that had touched and inspired you.

VIDEO CONTENT AND RULES FOR SUBMISSION

- The video may include song and / or performance and / or a series of reflections and interviews
- The duration of the video should be for a maximum of 2 minutes only.
- Only one entry per Hospital is allowed (the first video submitted by that Hospital will be taken as the formal video submission for the contest).
- No actual patients should be involved in the video.
- All participants involved in the video must consent for the video to be published.

VIDEO COMPETITION

INSTRUCTIONS FOR VIDEO SUBMISSION

E-mail your video (or the link to the video uploaded in Google Drive) to **secretariat@msic.org.my** with the following details:

- Hospital Name
- Team / Department Name
- Contact number and e-mail of team leader / person-in-charge
- Consent form

We will post your video on our official Malaysian Society of Intensive Care (MSIC) website:www.msic.org.my AND FB page **https://www.facebook.com/msiansocintensivecare**

Kindly encourage viewers to vote for your video by clicking the 'like' and 'share' button on the approved video post on the MSIC website page.

Please be reminded that the final judging 'Likes' count will be taken from these video posts ONLY.

Deadline for video submission: **31st July 2022**

Video submission after the deadline will not be eligible to enter the contest.

From 6th August till 5th September 2022, the videos will be uploaded on the FB sites for viewing and 'Likes'. The total number of 'Likes' as on 31st August will be counted and taken as the final count. The panel of judges will consider the five videos with the most number of 'Likes' for the 1st, 2nd and 3rd prizes. The video which wins the first prize will be played at the Opening Ceremony.

Participants will retain the ownership of their videos; however, the Organising Committee reserves the right to display the videos on ASMIC 2022 conference and to publish the videos on the MSIC website page.

The Organising Committee also reserves the right to reject any video submission that is deemed inappropriate.

SCORING SYSTEM

1. Top five videos with the highest number of 'Likes' will be further evaluated by a panel of jury.

2. Jury marking scheme:

a. Creativity of storyline/content	20 marks
b. Originality	10 marks
c. Highlight of theme "Thanking our Stars - The ICU Heroes"	10 marks

3. The jury's decision is final.

4. The winners will be announced on the last day of the conference.

PRIZES

- **1st prize: RM 1000**
- **2nd prize: RM 750**
- **3rd prize: RM 500**

For enquiries, please email to secretariat@msic.org.my

ASMIC 2022

ANNUAL SCIENTIFIC MEETING ON INTENSIVE CARE

Date: 8th - 11th September 2022
Venue: Shangri La Hotel

WORLD SEPSIS DAY EXPLORACE

RACE TILL YOU WIN

http://www.msic.org.my

In conjunction with the World Sepsis Day, ASMIC 2022 will hold an EXPLORACE. Gather yourselves in threes and hunt for answers to questions from the trade exhibition booths. Registration and further details will be announced closer to the event. Attractive prizes await the diligent teams. RACE TILL YOU WIN

CONGRESS INFORMATION

REGISTRATION FEES

Category	On or Before 31st July 2022	From 1st August to 31st August 2022	On-Site
Local			
Member of MSIC	RM 950	RM 1050	RM 1150
Non-Member of MSIC - Doctor	RM 1050	RM 1150	RM 1250
Allied Health Professional	RM 800		RM 950
Overseas			
Delegate	USD 350	USD 400	USD 450

PRE-CONGRESS WORKSHOPS ***(8th September 2022, Thursday)*** *(subject to availability of places at the workshops)*	**Before 30th August 2022**
1. Renal Support for the Critically Ill Child	RM 400
2. The Art and the Science of Haemodynamic Monitoring for Nurses	RM 150
3. ECMO for Respiratory Failure	RM 500
4. End-of-Life Care Workshop	RM 300
5. Best Practices in Organ Donation - Doctor - Nurse	 RM 300 RM 150

COFFEE WITH THE EXPERT SESSIONS *(Limited to 40 doctors only)*	**Before 30th August 2022**
1. Let's Start Feeding Our Patients Better	RM 20
2. MIS-C: What More Can I Do? *(Paediatric Session)*	RM 20
3. Post Cardiac Arrest Care	RM 20
4. When There Is No Urine…. *(Paediatric Session)*	RM 20

The above rates are inclusive of the 6% SST

For online registration and payment, please log on to www.msic.org.my

CONGRESS INFORMATION

PAYMENT

All payments are to be issued in favour of "**Malaysian Society of Intensive Care**".

Payment should be sent with the completed Registration Form to the Congress Secretariat.
Payments can be made via telegraphic transfer to:

Name of Account	:	Malaysian Society of Intensive Care
Account No.	:	873-1-5662806-4
Name of Bank	:	Standard Chartered Bank Berhad
Address of Bank	:	Lot 4 & 5, Level G2, Publika Shopping Gallery, Solaris Dutamas 50480 Kuala Lumpur, Malaysia
Swift Code	:	SCBLMYKXXXX

(Please return the remittance note along with the Registration Form either by fax or email. Document image by email is also acceptable.)

HOSPITAL - SPONSORED DELEGATES

Please submit LPO with Registration Form. Otherwise, a letter of undertaking from the hospital is required.

CANCELLATION AND REFUND POLICY

The Conference Secretariat must be notified in writing of all cancellations. Refund will be made after the conference as follows:

Cancellation on or before 15th July 2022	:	50% refund
Cancellation after 15th July 2022	:	Nil

CERTIFICATE OF ATTENDANCE

Certificate of Participation will be issued to all delegates.

LIABILITY

The Organising Committee will not be liable for the personal accidents, loss or damage to private properties of delegates during the Conference. Participants should make their own arrangements with respect to personal insurance.

SUBMISSION OF ABSTRACTS

ASMIC 2022 welcomes the submission of abstracts for consideration as Oral or Poster Presentations. The closing date for submission is 31st July 2022.

CONGRESS INFORMATION

CONGRESS HOTEL

Shangri-La Kuala Lumpur
11 Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia
Tel: +603 2032 2388 **Fax:** +603 2072 0335
Email: queenie.ng@shangri-la.com **Website:** www.shangri-la.com/kualalumpur/shangrila/

Room Category	Single Occupancy	Double Occupancy
Deluxe Room	RM 540.00++	RM 590.00++
Executive Room	RM 560.00++	RM 610.00++
Horizon Executive Room	RM 700.00++	RM 750.00++

- *Rates are per room per night, and quoted in Ringgit Malaysia (RM).*
- *Rates do not include applicable taxes per room per night; currently 10% Service Charge and 6% Government Tax.*
- *Rates include Daily Buffet Breakfast.*
- *Rates are inclusive of complimentary Wi-Fi access.*
- *Rates will be available for three (3) days prior to 8th September 2022 and after 10th September 2022, subject to room availability.*

DISCLAIMER
The Organising Committee reserves the right to make necessary changes to the programme should the need arise.

FREE COMMUNICATIONS

The Organising Committee welcomes the submission of abstracts for both Oral and Poster Presentations.

The following awards will be given:

1. T. Sachithanandan Best Oral Free Paper Award comprising a certificate and cash prize of RM 1000 for the Best Oral Presentation.
2. Best Poster Award comprising certificate and cash prize RM300.

Authors whose abstracts are not short-listed for the Oral Free Paper can opt for the poster presentation.

The Organising Committee reserves the right to revoke the award if the material presented is found to have been published or presented in other scientific meetings/conferences prior to the receipt of the award.

DEADLINE FOR SUBMISSION OF ABSTRACTS: **31st July 2022**

This abstract receipt deadline will remain firm and any abstracts received after the deadline will not be accepted.

GUIDELINES FOR SUBMISSION OF ABSTRACTS

- Papers to be submitted must be intensive care related topics.
- No limit is imposed on the number of abstracts submitted by an individual.
- Abstracts are to be submitted in English only.
- Submitted abstracts should include unpublished data.
- Abstracts previously presented will not be accepted.
- Abstracts will only be accepted after payment of registration fees. If the abstract is subsequently not accepted for presentation, the registration fee will be refunded if cancellation is requested.
- Scheduling details and guidelines for the final preparation of accepted presentations will be included with the notification of acceptance.
- The submitted abstracts will be reviewed by the Organising Committee.
- The decision made by the Organising Committee is **FINAL** and no further appeal will be entertained.

WHERE APPROPRIATE, THE ABSTRACTS SHOULD CONTAIN THE FOLLOWING

- Statement on the objective of the study.
- Description of the methods used.
- Summary of the results obtained.
- Statement on the conclusion reached.

FREE COMMUNICATIONS

ABSTRACT PREPARATION AND SUBMISSION

- Abstracts can only be submitted via the online submission system.
- Abstracts should be formatted using the template in the website.
- Abstracts must not be more than 300 words [inclusive of author(s) name].
- Title must be in bold capital letters at the top of the abstract.
- A maximum of 5 authors can be listed under author(s) name and institution.
- Presenting author's name must be underlined.
- Graphs, tables and illustrations cannot be included in the abstract.

ABSTRACT SUBMITTERS' DECLARATION

During abstract submission you will be asked to declare the following:

- I confirm that all information provided in the abstract is correct. I accept that the content of this abstract cannot be modified or corrected after final submission and I am aware that it will be published as submitted.
- I confirm that the abstract includes unpublished data and it has not been presented in any scientific meeting/conference or any equivalent forum previously.
- Submission of the abstract constitutes the consent of all authors to publication (e.g. Conference website, programs, other promotions, etc.)
- I herewith confirm that the contact details provided are those of the presenting author, who will be notified about the status of the abstract. The presenting author is responsible for informing the other authors about the status of the abstract.
- I understand that the presenting author must be a registered participant.
- The Organisers reserve the right to remove from publication and/or presentation an abstract which does not comply with the above.
- The Organising Committee reserves the right to approve or reject the submission.

IMPORTANT

Please submit abstracts to **www.msic.org.my**

ORAL PRESENTATIONS

ID 19 INTRAVENOUS VITAMIN C MONOTHERAPY IN CRITICAL ILLNESS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIAL WITH TRIAL SEQUENTIAL ANALYSIS

Zheng-Yii Lee[1], Charles Chin Han Lew[2], Alfonso Ortiz-Reyes[3,4], M Shahnaz Hasan[1], Daren K Heyland[3]

[1]Department of Anaesthesiology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia
[2]Department of Dietetics & Nutrition, Ng Teng Fong General Hospital, Singapore
[3]Clinical Evaluation Research Unit, Department of Critical Care Medicine, Queen's University, Kingston, Canada
[4]Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Canada

ID 21 TRACHEOSTOMY IN CRITICALLY ILL PATIENTS WITH COVID-19: THE HKL EXPERIENCE

Koo Thomson, Adlina Hisyamuddin, Shanti Rudra Deva, Louisa Chan Yuk Li, Lavitha Vyveganathan

Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

ID 23 SEVERE SEPSIS AND SEPTIC SHOCK IN PAEDIATRIC INTENSIVE CARE UNIT (PICU) OF UNIVERSITY MALAYA MEDICAL CENTRE (UMMC)

Ann Gee Chee[1], Michelle Siu Yee Low[2], Yun Shan Chee[2], Chin Seng Gan[1,2]

[1]Universiti Malaya, Kuala Lumpur, Malaysia
[2]Paediatric Intensive Care Unit, University Malaya Medical Centre, Kuala Lumpur, Malaysia

ID 26 USEFULNESS OF URINARY NEUTROPHIL GELATINASE-ASSOCIATED LIPOCALIN FOR PREDICTING ACUTE KIDNEY INJURY AND RECEIPT OF RENAL REPLACEMENT THERAPY IN CRITICALLY ILL ELDERLY PATIENTS

Abdul Jabbar Ismail[1,2], Wan Fadzlina Wan Muhd Shukeri[1], Mohd Basri Mat Nor[3], Wan Mohd Nazaruddin Wan Hassan[1]

[1]Universiti Sains Malaysia, Kelantan, Malaysia
[2]Universiti Malaysia Sabah, Sabah, Malaysia
[3]International Islamic University Malaysia, Pahang, Malaysia

ID 30 RELATIONSHIP BETWEEN GLYCATED HAEMOGLOBIN A1C VALUE ON ADMISSION AND MORTALITY IN THE INTENSIVE CARE UNIT, HOSPITAL KUALA LUMPUR

Vanessa Chang Yit Mei[1], Noor Airini Ibrahim[2], Nurul Fatima Ahmad Zabidi[3], Aizad Azahar[2]

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[2]Department of Anaesthesia and Intensive Care, Hospital Pengajar UPM, Selangor, Malaysia.
[3]Department of Pathology, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

ID 31 EVALUATION OF FIRST-PASS INTUBATION SUCCESS RATE BETWEEN MCGRATH®MAC VIDEOLARYNGOSCOPY VERSUS MACINTOSH DIRECT LARYNGOSCOPY AMONG CRITICALLY ILL PATIENTS: A PROSPECTIVE OBSERVATIONAL STUDY

Mohd Niza Zakaria, Zheng-Yii Lee, Mei Hoon Yap, M Shahnaz Hasan
Department of Anaesthesiology, Universiti Malaya, Kuala Lumpur, Malaysia

ID 19

INTRAVENOUS VITAMIN C MONOTHERAPY IN CRITICAL ILLNESS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIAL WITH TRIAL SEQUENTIAL ANALYSIS

***Zheng-Yii Lee*[1], *Charles Chin Han Lew*[2], *Alfonso Ortiz-Reyes*[3,4], *M Shahnaz Hasan*[1], *Daren K Heyland*[3]**
[1]Department of Anaesthesiology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia
[2]Department of Dietetics & Nutrition, Ng Teng Fong General Hospital, Singapore
[3]Clinical Evaluation Research Unit, Department of Critical Care Medicine, Queen's University, Kingston, Canada
[4]Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Canada

OBJECTIVE
Vitamin C is an essential micronutrient with pleiotropic effects. Previous systematic review and meta-analysis (SRMA) demonstrated high-dose intravenous Vitamin C monotherapy (IVVC) is associated with mortality benefit in critical illness. However, the recent landmark trial (LOVIT) demonstrated increased risk of death and persistent organ dysfunction with IVVC. We aimed to explore the effect of IVVC on mortality.

Method
Randomized controlled trials (RCTs) among adult critically ill patients comparing IVVC monotherapy versus control and reported mortality outcome were included. Four databases were searched from inception to 22-06-2022 without language restriction. Random-effect meta-analysis was performed to estimate the pooled risk ratio using Revman 5. Trial sequential analysis (TSA) were performed using the TSA software (0.9.5.10 Beta) with the DerSimonian-Laird random effect model, alpha 5%, beta 10% and relative risk reduction (RRR) of 35%, 30%, 25%, 20% and 15%.

RESULTS
Sixteen RCTs (n=2130) were included. IVVC is associated with significant reduction in overall mortality (risk ratio [RR] 0.73, 95% confidence interval [CI] 0.60-0.89; p=0.002; I2=42%). No subgroup differences were found for subgroup analyses of higher (≥10000 mg/day) versus lower dose, sepsis versus non-sepsis, earlier (<24h) versus delayed treatment. There may be evidence of a subgroup effect favouring trials with sicker (control group mortality ≥ median, 37.5%) than less sick patients (p=0.06). TSA confirmed the benefit of IVVC at RRR of 35%, 30% and 25%, but more studies are needed to achieve the required information size for RRR of 20% (n=4902) and 15% (n=8843). TSA confirmed the benefits of IVVC among sicker patients, but more trials are needed to confirm its treatment effect in less sick patients.

CONCLUSION
IVVC monotherapy may still be associated with mortality benefit especially in sicker patients.

ID 21

TRACHEOSTOMY IN CRITICALLY ILL PATIENTS WITH COVID-19: THE HKL EXPERIENCE

__Koo Thomson__, Adlina Hisyamuddin, Shanti Rudra Deva, Louisa Chan Yuk Li, Lavitha Vyveganathan
Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

OBJECTIVE
The timing and outcomes of tracheostomy in critically ill COVID-19 patients in Malaysia remain unclear. We aim to describe the clinical characteristics and outcomes of critically ill COVID-19 patients who underwent tracheostomies.

METHODS
This retrospective observational cohort study involved all COVID-19 patients who underwent tracheostomies between 1st January 2021 to 31st December 2021 in ICU HKL. Information on clinical characteristics and outcomes (successful weaning, tracheostomy decannulation, living status on ICU and hospital discharge, duration of mechanical ventilation, duration of ICU stay) were collected and analyzed. Data were compared between early and late tracheostomy. Early tracheostomy was defined as tracheostomy performed within 14 days of intubation, and late tracheostomy was tracheostomy done any time thereafter.

RESULTS
60 patients were identified. 38(63.3%) patients were successfully weaned from mechanical ventilation (mean time from tracheostomy to successful weaning of 12.8±8.9 days). Decannulation was done in 12(20%) patients (mean decannulation time of 29.2±18.2 days). 39(65%) patients were alive on ICU discharge, and 24(40%) were alive on hospital discharge. 21(35%) patients underwent early tracheostomy, while 39(65%) patients underwent late tracheostomy. More patients required prone ventilation in the late tracheostomy group (19(48.7%) versus 3(14.3%), p=0.008). There were no significant differences in successful weaning, decannulation, living status on ICU and hospital discharge, between early and late tracheostomy. However, there was a significantly shorter time on mechanical ventilation (21.8±9.3 days versus 32.5±10.5 days, p<0.001, 95% CI -16.12 to -5.96) and shorter length of ICU stay (24.4±12.2 days versus 33.8±13.8 days, p=0.011, 95% CI -16.57 to -2.22) in the early tracheostomy group.

CONCLUSION
Early tracheostomy was associated with a shorter duration of mechanical ventilation and ICU stay without a significant difference in survival outcome.

ID 23

SEVERE SEPSIS AND SEPTIC SHOCK IN PAEDIATRIC INTENSIVE CARE UNIT (PICU) OF UNIVERSITY MALAYA MEDICAL CENTRE (UMMC)

Ann Gee Chee[1], *Michelle Siu Yee Low*[2], *Yun Shan Chee*[2], *Chin Seng Gan*[1,2]
[1]Universiti Malaya, Kuala Lumpur, Malaysia
[2]Paediatric Intensive Care Unit, University Malaya Medical Centre, Kuala Lumpur, Malaysia

OBJECTIVE

Sepsis is one of the leading causes of mortality and morbidity in children despite the declining rate of death from communicable diseases. This study aims to describe the demographic and clinical characteristics among the paediatric patients presented with severe sepsis and septic shock to PICU and to identify associated factors contributing to morbidity and mortality. The secondary objective was to explore treatment response and adherence to surviving sepsis campaign (SSC) recommendations.

METHODS

Single centre, retrospective study conducted at PICU, UMMC. Children aged from 1 month to 18 years old diagnosed with severe sepsis or septic shock following International Pediatric Sepsis Consensus Conference. Admissions from 2018 to 2019 that fulfilled inclusion criteria were recruited and analysed.

RESULTS

Total of 38 patients were included in this study. Median (IQR) age was 6.3 years (0.7-12.7 years). Three main sources of infection were isolated bacteremia (26.32%), gastrointestinal tract infection (18.4%) and respiratory tract infection (17.8%). All patients diagnosed with septic shock upon admission. Cardiovascular dysfunction was the commonest (38/38, 100%) presentation, followed by respiratory (25/38, 65.8%) and haematological (21/38, 55.3%) dysfunctions. All patients were fluid-resuscitated with normal saline boluses before initiation of vasopressor. Noradrenaline (25/38, 66.67%) was the most use vasopressor. By and large, PICU mortality rate was (10/38, 26.31%). Admission PELOD2 score was associated with PICU mortality.

CONCLUSION

Paediatric mortality from paediatric septic shock was high but comparable to the recent study published by PACCMAN group (19.2%). Patients who received fluid and vasopressor therapy were administered as recommended by SSC guidelines.

ID 26

USEFULNESS OF URINARY NEUTROPHIL GELATINASE-ASSOCIATED LIPOCALIN FOR PREDICTING ACUTE KIDNEY INJURY AND RECEIPT OF RENAL REPLACEMENT THERAPY IN CRITICALLY ILL ELDERLY PATIENTS

Abdul Jabbar Ismail[1,2], *Wan Fadzlina Wan Muhd Shukeri*[1], *Mohd Basri Mat Nor*[3], *Wan Mohd Nazaruddin Wan Hassan*[1]
[1]Universiti Sains Malaysia, Kelantan, Malaysia
[2]Universiti Malaysia Sabah, Sabah, Malaysia
[3]International Islamic University Malaysia, Pahang, Malaysia

OBJECTIVE

Urinary Neutrophil Gelatinase-Associated Lipocalin (uNGAL) is a novel biomarker of acute kidney injury (AKI), but studies in elderly patients are still scarce. We aimed to assess the usefulness of uNGAL for predicting AKI and receipt of renal replacement therapy (RRT) in critically ill elderly patients.

METHODS

This was a prospective cohort study of 139 patients aged ≥60 years old admitted to ICU of two university-affiliated hospitals in Malaysia. uNGAL was measured on ICU admission with Finecare FIA Meter. AKI was diagnosed using Kidney Disease Improving Global Outcomes criteria.

RESULTS

Mean age of these patients was 68 ±7years, and the prevalence of AKI was 53.2%, most caused by sepsis (29.7%). On ICU admission, those who developed AKI had significantly higher APACHEII score (17.8±7.0 vs.11.9±5.8, 95%CI 3.7-8.0,P<0.01) and procalcitonin level (5.88[IQR2.2-35.4] vs.2.85 (IQR1.2-7.5) ng/mL,P=0.02). uNGAL on admission was significantly higher in those who develop AKI than those who did not (674[IQR 280-1304] vs.118 [IQR 60-580] ng/mL, *P*<0.01). After adjusting for age, gender, presence of chronic kidney disease and APACHEII score, uNGAL remained as an independent predictor of AKI with adjusted odds ratio of 1.001 (95%CI 0.99-1.00). The area under the curve (AUC) of uNGAL for predicting AKI was 0.728 (95%CI 0.64-0.81). At the ideal cut-off point of >287.4 ng/ml, uNGAL had 75% sensitivity and 66% specificity to predict AKI. uNGAL was significantly higher in those received RRT than those who did not (858 [IQR462-1426] vs.277 [IQR93-956] ng/mL, P<0.01). The AUC of uNGAL for predicting receipt of RRT was 0.718 (95%CI 0.63-0.81) with an ideal cut-off point of >481.4 ng/mL (sensitivity 70% sensitivity, specificity 60%).

CONCLUSIONS

uNGAL measured on ICU admission is a promising biomarker to predict AKI and receipt of RRT among critically ill elderly patients.

This study was funded by the Malaysian Ministry of Higher Education under the grant FRGS/1/2020/SKK01/USM/03/1.

ID 30

RELATIONSHIP BETWEEN GLYCATED HAEMOGLOBIN A1C VALUE ON ADMISSION AND MORTALITY IN THE INTENSIVE CARE UNIT, HOSPITAL KUALA LUMPUR

Vanessa Chang Yit Mei[1], *Noor Airini Ibrahim*[2], *Nurul Fatima Ahmad Zabidi*[3], *Aizad Azahar*[2]
[1]Department of Anaesthesia and Intensive Care, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia.
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[3]Department of Pathology, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

OBJECTIVE

Earlier studies found that higher glycated haemoglobin A1c (HbA1c) levels was associated with increased mortality. The objective of this study was to investigate the relationship between admission HbA1c levels and the mortality rates in our intensive care unit (ICU).

METHODS

This was a single centre, prospective, cross-sectional study conducted in Hospital Kuala Lumpur's (HKL) ICU between July and October 2020. Participants' HbA1c levels on ICU admission was measured and categorised as less than 6.5%, 6.5-7.5%, 7.5-8.5%, 8.5-10% and more than 10%. Participants were followed up for 30 days. Shapiro-Wilk test was used to test for normality. Chi-square test was used to test for the association between HbA1c values and mortality. To determine HbA1c as a predictor of mortality a receiver operating curve (ROC) was used.

RESULTS

We recruited 234 participants aged between 18 and 84 years old. HbA1c levels on ICU admission ranged from 4.1% up to 16.5%. The study observed 45 (19.2%) deaths. Our study showed that survivors had a median admission HbA1c of 6.2% as compared to the non-survivors of 7.1% (P=0.01). Taking HbA1c of 6.5% as the cut-off point, the corresponding area under the ROC curve was 0.624 (95%Cl: 0.525-0.723) with sensitivity of 54.5% and specificity of 64.7%.

CONCLUSION

Our study showed that with increasing HbA1c there was an increased risk of mortality. However, it appeared to be a poor prognostic indicator of mortality for critically ill patients, with low sensitivity and specificity.

ID 31

EVALUATION OF FIRST-PASS INTUBATION SUCCESS RATE BETWEEN MCGRATH®MAC VIDEOLARYNGOSCOPY VERSUS MACINTOSH DIRECT LARYNGOSCOPY AMONG CRITICALLY ILL PATIENTS: A PROSPECTIVE OBSERVATIONAL STUDY

***Mohd Niza Zakaria**, Zheng-Yii Lee, Mei Hoon Yap, M Shahnaz Hasan*
Department of Anaesthesiology, Universiti Malaya, Kuala Lumpur, Malaysia

OBJECTIVE

Endotracheal intubation in the critically ill patients is a challenging process. With the advent of new technology, videolaryngoscope (VL) can potentially improve the difficulties related to intubation procedure and its sequalae. This study aims to compare the first-pass success rate of intubation using McGrath®MAC VL versus Macintosh direct laryngoscope (DL) among critically ill patients.

METHOD

This is a before-after study over a period of 6 consecutive months for each group. All non-cardiac arrest orotracheal intubations involving adult patients in intensive care units and general wards were included. Simple logistic regression was used to analyse the odds of successful first-pass intubation.

RESULTS

A total of 238 patients were enrolled with 122 and 116 patients in the DL and VL group, respectively. The VL group had higher rate of successful first-pass orotracheal intubation than the DL group (94.8% vs. 79.5%, $p<0.05$). VL intubation increased the odds of successful first-pass intubation by 4.7 times compared to VL (95% confidence interval [CI] 1.86-12.00; $p<0.05$). The time taken to successful intubation was shorter in the VL than DL group (mean difference [MD] 4.39 seconds, 95% CI 1.66-7.11) Incidences of difficult intubations (>2 attempts) were low but occurred more frequently in DL (4.1%) than VL (0%) group. Post intubation systolic blood pressure (MD 0.18, 95% CI -7.26-7.61) and complications were not different between groups. There were also no significant differences in mortality at day 7 and day 30.

CONCLUSION

Compared to DL, McGrath®MAC VL is associated with higher first-pass successful intubation rate and faster time to successful intubation. Patient haemodynamic post-intubation, incidence of complications and mortality rate were not different between groups.

POSTER PRESENTATIONS

ID 03 THE ASSOCIATION OF FRAILTY WITH MORTALITY AND RESOURCE UTILIZATION IN ELDERLY PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT: A MALAYSIAN OBSERVATIONAL STUDY

Priyaneka Baskaran[1], Wan Fadzlina Wan Muhd Shukeri[1], Mohd Basri Mat Nor[2]

[1]Department of Anaesthesiology and Intensive Care, School of Medical Sciences, Universiti Sains Malaysia, Kuala Lumpur, Malaysia

[2]Department of Anaesthesiology and Intensive Care, Kuliyyah of Medicine, International Islamic University Malaysia, Pahang, Malaysia

ID 04 HEMODYNAMIC AND FLUID RESPONSIVENESS IN PATIENTS WITH DENGUE SHOCK: AN ECHOCARDIOGRAPHY STUDY

R Shanthi[1], N Sakthi[2]

[1]Thompson Hospital Kota Damansara, Selangor, Malaysia

[2]Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

ID 05 COMPARISON OF RENAL SCORING IN RISK STRATIFICATION SCORES VERSUS KIDNEY DISEASE GLOBAL DISEASE OUTCOME CONSENSUS DEFINITION IN THE CRITICALLY ILL

Azrina Md Ralib, Nurul Izzah Azmi, Mohd Basri Mat Nor

Department of Anaesthesiology and Intensive Care, Kulliyyah of Medicine, International Islamic University Malaysia, Pahang, Malaysia

ID 06 DOUBLE DANGER DKA: A RARE CASE REPORT OF TWINS WITH RABSON MENDENHALL SYNDROME (RMS)

Vimal Varma, Mahazir Kassim, Seethal Padmanathan

Department of Anaesthesiology & Intensive Care, Hospital Sultanah Aminah, Johor, Malaysia

ID 07 KNOWLEDGE, ATTITUDE AND PRACTICE OF NURSES ON MEDICATION ADMINISTRATION THROUGH ENTERAL TUBES FEEDING IN HOSPITAL SULTANAH BAHIYAH KEDAH

Yusof F[1], Ong Y C[2], Zabidi N[3]

[1]Pharmacy Department, Hospital Sultanah Bahiyah, Kedah, Malaysia

[2]Pharmacy Enforcement Division, State Health Department, Kedah, Malaysia

[3]Pharmacy Department, Hospital Sultanah Maliha, Kedah, Malaysia

ID 08 DESCRIPTION STUDY ON COVID 19 OBSTETRIC PATIENTS IN INTENSIVE CARE UNIT OF A JOHOR BAHRU DISTRICT SPECIALIST HOSPITAL

Chong S J, Azahari J, Huda A

Department of Anaesthesia and Intensive Care Unit, Hospital Sultan Ismail, Johor, Malaysia

POSTER PRESENTATIONS

ID 09 ***CHRYSEOBACTERIUM ARTHROSPHAERAE* BACTEREMIA IN COVID-19 PATIENTS: CASE REPORT OF SUCCESSFUL BACTERIAL CLEARANCE**

Vimal Varma, Ong Su Ping, Mahazir Kassim, Tan Chee Chin
Department of Anaesthesiology & Intensive Care, Hospital Sultanah Aminah, Johor, Malaysia

ID 10 **POINT OF CARE TRANSCRANIAL DOPPLER SONOGRAPHY IN PAEDIATRIC NEUROCRITICAL CARE**

F L Khiu, Y K Chor
Sarawak General Hospital, Sarawak, Malaysia

ID 11 **INCIDENCE OF NOSOCOMIAL INFECTION AMONG COVID-19 PATIENTS RECEIVING TOCILIZUMAB IN THE INTENSIVE CARE UNIT (ICU): A RETROSPECTIVE STUDY**

W A H W A Junaidi, K W Foong
Hospital Raja Permaisuri Bainun, Perak, Malaysia

ID 15 **ALTEPLASE: POSSIBLE SAVIOR OF COVID-19 PULMONARY ARTERY THROMBOSIS ASSOCIATED OBSTRUCTIVE SHOCK OR REFRACTORY HYPOXIA. A CASE SERIES**

Alvis Lee, Daniel Chow, P W Chia
Hospital Tawau, Sabah, Malaysia

ID 18 **SHORTAGE OF SEDATIVES, ANALGESIA AND NEUROMUSCULAR BLOCKERS DURING COVID-19 PANDEMIC: HOSPITAL PUTRAJAYA EXPERIENCE**

M Fithriah, K Siti Amira, A Amin
Hospital Putrajaya, Putrajaya, Malaysia

ID 22 **PREVALENCE OF VITAMIN D DEFICIENCY AND ITS ASSOCIATION WITH OUTCOME IN ELDERLY PATIENTS ADMITTED TO MALAYSIAN INTENSIVE CARE UNIT**

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ID 03

THE ASSOCIATION OF FRAILTY WITH MORTALITY AND RESOURCE UTILIZATION IN ELDERLY PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT: A MALAYSIAN OBSERVATIONAL STUDY

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OBJECTIVE

To determine whether frailty is associated with increased mortality and resource utilization in elderly patients admitted to our local ICU.

METHODS

This was an observational study conducted in the ICU of two university-affiliated hospitals in Malaysia from October 2021 to April 2022. Inclusion criteria were patients aged >60 years old who were admitted to the ICU for >24 hours. Frailty on ICU admission was assessed using the Clinical Frailty Scale in which a score of ≥5 was classified as frail. The primary outcome was all-cause ICU mortality, while the secondary outcomes were resource utilization in terms of ICU length of stay and specific ICU treatments provided.

RESULTS

A total of 99 out of the 134 (73.9%) elderly patients recruited were frail. At baseline, those who were frail had higher illness severity than non-frail patients with APACHE II score of 16 ± 7 vs. 12 ± 6 (P = 0.005). Frailty was associated with a significantly higher proportion of all-cause ICU mortality (23.2% vs. 17.1%, P <0.001). Length of stay in the ICU did not differ between the frail and non-frail patients. However, the proportion of patients receiving specific ICU treatments was significantly higher in the presence of frailty at 64.6% vs. 48.6% (P <0.001) for mechanical ventilation, 59.6% vs. 54.3% (P <0.001) for catecholamine and 27.3% vs. 8.6% (P <0.001) for renal replacement therapy. After adjusting for illness severity, frailty was not independently associated with any of these outcomes.

CONCLUSION

Frailty is common and is associated with increased mortality and resource utilization. However, after adjustment for illness severity, this association was not independent. The current findings nonetheless serve as an important reminder that a larger multi-center study is required to ascertain the impact of frailty on outcome in elderly patients admitted to our local ICU.

ID 04

HEMODYNAMIC AND FLUID RESPONSIVENESS IN PATIENTS WITH DENGUE SHOCK: AN ECHOCARDIOGRAPHY STUDY

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Dengue can manifest from a mild illness to a life threathening hypovolaemic shock for which fluid has been the mainstay of treatment. There has been growing evidence that the shock in dengue may also be of cardiogenic and vasoplegic in nature which may benefit from inotrope or vasopressor rather than fluids. This study aims to identify the type of shock in severe dengue and to assess the volume responsiveness using an echo-guided algorithm. We also wanted to determine the mean hours and volume of fluids received before the patient was no longer volume-responsive. This was a cross sectional observation study of dengue shock admitted to ICU Hospital Sungai Buloh between the period of 1st February and 31st August 2017. Resuscitation and treatment was guided by echocardiography. The shocks in dengue were variable with the highest type being cardiogenic (50%), hypovolaemic (26%) and vasoplegic (24%). The lowest episodes of shock were seen in the vasoplegic group where only 7% of them were volume responsive which was expected as these groups of patients require vasopressor to circumvent the vasoplegia rather than fluids. The highest recurrent shocks were seen in the vasoplegic group (60%). Majority of the patients were in cardiogenic shock because of overzealous fluid resuscitation given prior to ICU admission as our data showed that despite only 14% of them were volume-responsive, they received a whopping cumulative fluid of 28 ml/kg within 6 hours before becoming non-volume responsive. Therefore we advocate the usage of echocardiography as an essential tool in early detection of the type of shock and non-volume responsiveness to prevent iatrogenic fluid overload as well as to guide timely initiation of vasopressors and/or inotropes.

ID 05

COMPARISON OF RENAL SCORING IN RISK STRATIFICATION SCORES VERSUS KIDNEY DISEASE GLOBAL DISEASE OUTCOME CONSENSUS DEFINITION IN THE CRITICALLY ILL

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INTRODUCTION

Acute Kidney Injury (AKI) contributes to increase morbidity and mortality in the intensive care unit (ICU). AKI is diagnosed using the KDIGO criteria, however it differs with the renal criteria of risk stratification scores commonly used in the ICU. We evaluated the best renal scores for predicting outcome in the ICU that can be used for risk prognostication.

MATERIALS AND METHODS

A retrospective review of all patients admitted to the ICU of Sultan Ahmad Shah Medical Centre (SASMEC@ICU) was performed. Ethical approval has been obtained (IREC 2021-304). AKI by KDIGO definition was determined based on the creatinine criteria. Renal scores of SOFA, APACHE II and SAPS II were also determined within the first 24 hours of ICU admission.

RESULTS

There is a total of 1220 admissions from 2017 to 2020. From these, 1074 with available plasma creatinine data was analysed. Of these, 328 (30.5%) had AKI, 221 (20.1%) were dialysed, and 224 (20.9%) died on ICU discharge. The composite outcome of death and dialysis was 356 (33.1%). Renal component of the SOFA had the highest AUC in prediction of death and dialysis with AUC of 0.79 (0.75 to 0.82). This was followed renal scores of APACHE II (0.76 (0.73 to 0.79), and SAPS II (0.72 (0.69 to 0.75). Of the different components of the SOFA, APACHE II and SAPS II scores, renal scores had the highest AUC in predicting death or dialysis.

CONCLUSIONS

Renal criteria of SOFA score has the highest prediction of death and dialysis compared to the other renal criteria of APACHE II and SAPS II. Hence, SOFA renal score is useful for prognostication.

ID 06

DOUBLE DANGER DKA: A RARE CASE REPORT OF TWINS WITH RABSON MENDENHALL SYNDROME (RMS)

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INTRODUCTION

RMS is a rare autosomal recessive disorder characterized by severe insulin resistance due to homozygous mutations in the insulin receptor (INSR) gene.[1] Patients presented with severe hyperglycemia and associated complications mainly ketoacidosis and characteristic facial, skin, skeletal and dental features.[2] Diagnosis done mainly based on signs and symptoms developing early in life. Severe insulin resistance in an insulin-dependent subject might be suspected when requiring more than 200 units per day insulin. Patients are prone for multiple admissions and usually succumbed to death by third decade due to severe diabetic ketoacidosis (DKA).[3]

CASE

A set of twin sisters aged 14-year-old with RMS presented to Emergency Department (ED) with severe DKA. They are second born to parents of non-consanguineous marriage and have an elder sister with RMS too. They showed characteristic dysmorphic features of RMS such as growth retardation, coarse facies, acanthosis nigricans & hirsutism. They were intubated for severe metabolic acidosis. In ICU, we faced a great difficulty controlling hyperglycemia and correcting the acidosis. Blood glucose ranges between 20-25 mmol/l and urine ketone reading between 3-4+ with IVI insulin rate up to 1.5 units/kg/hour (38 units/hour). DKA eventually resolved but they both required tracheostomy after failed extubation due to vocal cord oedema. They were discharged home well with subcutaneous Actrapid (60/60/60/25 units) & Insulatard (200 units BD).

CONCLUSION

The management of RMS is very challenging and treatment options are limited which are mostly supportive than curative. The introduction of multi drug therapy (Metformin and Glitazone) in the early phase might allow requirement of lower doses of insulin and delay microvascular complications. However, the long-term prognosis of patients with RMS remains poor until now. More in-depth research and wider collaboration is needed to identify definitive therapeutic options for children with this challenging condition.

ID 07

KNOWLEDGE, ATTITUDE AND PRACTICE OF NURSES ON MEDICATION ADMINISTRATION THROUGH ENTERAL TUBES FEEDING IN HOSPITAL SULTANAH BAHIYAH KEDAH

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INTRODUCTION

Medication administration in patient with enteral feeding require extra precaution as error happened can compromise patients care. Hence, we aimed to evaluate knowledge, attitude and practice on safe medication administration through enteral tubes feeding among our nurses.

METHODOLOGY

Nurses who involved directly with the care of patient in the ward were invited to participate in an online survey using self-administered questionnaire. Overall level of KAP was categorized using Blooms cut-off point and Kruskal Wallis test was conducted to compare differences between group.

RESULTS

Out of 147 respondents, nearly 97% of the nurses were female and has median of 9 years working experience. Less than 50% of them have good knowledge and practice but more than 50% have good attitude. Knowledge and practice significantly associated with current works place (P=0.000 and P=0.049 respectively). Nurses in multidiscipline ward and pediatric intensive care unit outperformed regarding knowledge and practice as compared to other ward, respectively. Furthermore, nurses with good level of knowledge significantly had more positive attituded compared to those with moderate and poor knowledge level (P=0.003). More frequent in handling patient with enteral tubes feeding does not result to a good practice.

CONCLUSION

Results from this study provide an insight regarding the knowledge, attitude and practice, which is an essential step towards safe medication administration through enteral tubes feeding among nurses.

Keywords
Enteral tube, medication administration, knowledge, attitude, practice

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ID 08

DESCRIPTION STUDY ON COVID 19 OBSTETRIC PATIENTS IN INTENSIVE CARE UNIT OF A JOHOR BAHRU DISTRICT SPECIALIST HOSPITAL

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BACKGROUND
COVID-19 infection during pregnancy has been known to have more severe presentations and outcomes, often they are managed in ICU settings.

OBJECTIVE
Aim is to study the demography, clinical presentation and outcome for obstetric patients with active COVID -19 infections who were admitted to ICU.

METHODOLOGY
A retrospective descriptive study. COVID-19 obstetric patients who were admitted to ICU from 1st May to 30th September 2021 are identified through ICU daily census and electrical medical records are reviewed for data extraction. Data analysis was done by using Microsoft Excel and online statistical calculators.

RESULTS
Obstetric patients constitute 12.1% (n=74) from total COVID admission, with maternal mortality rate of 0.03% (n=2), 83.8% (n=62) required intubation. There is a significant difference in age for patients who need intubation on admission compared to those who do not need intubation. (32.8 years, SD 6.24 vs 28.3 years, SD 4.26). 55.4% (n=41) of them are obese, but with insignificant odds ratio (0.97 [95% CI 0.22-4.35]) when relating to intubation. 77% (n=54) of patients required high flow nasal cannula during ICU stay. Among intubated patients, 15.6% (n=10) required prone ventilation and 45.2% (n=28) received muscle relaxant. 35.1% (n=26) patients received immunomodulation therapy, mainly tocilizumab. There is a significant difference in both ICU and hospital length of stay, cardiovascular and respiratory SOFA score among intubated on admission compared to no intubation. 82% (n=61) of them developed ARDS, followed by 75.7% (n=56) had hepatitis; 59.5% (n=44) had sepsis.

CONCLUSION
Increasing age and obesity are frequently observed among obstetrics COVID-19 patients requiring ICU admission. ARDS, hepatitis and sepsis being the 3 most common complications seen.

ID 09

CHRYSEOBACTERIUM ARTHROSPHAERAE BACTEREMIA IN COVID-19 PATIENTS: CASE REPORT OF SUCCESSFUL BACTERIAL CLEARANCE

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INTRODUCTION

Infections from *Chryseobacterium sp.* are rare, complicated with multidrug resistance and high mortality. Antimicrobial therapy targeting these bacteria have yet to be established. We present two cases of *C. arthrosphaerae* bacteremia in COVID-19 patients and their successful bacterial clearance with combination therapy of levofloxacin and linezolid.

CASE REPORT

A 57-year-old man with hypertension and ischaemic heart disease was admitted for SARS-CoV-2 pneumonia stage 5 complicated with acute kidney injury, transaminitis, and myocardial infarction. He received IV dexamethasone for 10 days. Blood cultures on the day of admission were positive for *Sternotrophomonas maltophilia*, and IV levofloxacin was started. Repeated blood cultures 8 days later isolated *Chryseobacterium arthrosphaerae* of intermediate susceptibility to vancomycin. IV linezolid was started, and subsequent culture after 3 days showed no growth.

The second patient was a 52-year-old man with hypertension and end-stage renal failure admitted for SARS-CoV-2 pneumonia stage 5. Similarly, initial cultures isolated *Sternotrophomonas maltophilia* and IV levofloxacin commenced. Blood cultures repeated 12 days after showed *Chryseobacterium arthrospaerae*. A clinical decision to start IV linezolid concurrently was based on the clearance achieved by the aforementioned patient. Repeated blood cultures 3 days later were negative for *C. arthrosphaerae*, and combination therapy was continued for 2 weeks.

DISCUSSION

Chryseobacterium sp. are resistant to carbapenems due to production of metallo-ß-lactamase. Activity towards aminoglycosides and vancomycin is also poor, with scarce data available regarding linezolid. Quinolones such as levofloxacin followed by rifampicin demonstrate highest efficacy and susceptibility to minocycline, ciprofloxacin and tazocin have also been reported. For *C. arthrosphaerae* bacteraemia, a suggested antimicrobial regimen is trimethoprim/sulfamethoxazole with/without ciprofloxacin.

CONCLUSION

Based on our limited experience, we propose the combination therapy of levofloxacin & linezolid for ≥2 weeks for complete eradication of C. arthrosphaerae. More evidence is necessary to determine exact antimicrobial regimens for this rare infection.

ID 10

POINT OF CARE TRANSCRANIAL DOPPLER SONOGRAPHY IN PAEDIATRIC NEUROCRITICAL CARE

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INTRODUCTION

Point of care ultrasound Doppler (POC-TCD) is a simple, non-invasive bedside examination tool that ideal for paediatric neurocritical care monitoring. Using phase array probe (2-5MHZ)- colour spectral place over temporal bone. Flow velocity generated from middle cerebral artery may reflects and correlate on the cerebral perfusion pressure.

OBJECTIVE

To show POC-TCD could added on diagnostic value in neuro-PICU setting, resulting in immediate therapeutic decision. It also serve as indirect intracranial pressure monitoring device and fine tune optimal cerebral perfusion pressure during cerebral resuscitation.

METHOD

Case Report

SUMMARY

8 years old girl presented with sudden onset of headache and found unconscious. She was intubated in the district hospital for airway protection due to poor GCS. CT brain urgent shows Right temporal lobe intracranial bleed with intraventricular extension. Significant midline shift with severe cerebral edema. The etiology is due to ruptured right middle cerebral arteriovenous malformation.

Urgent craniectomy done in SGH. Post operetively, invasive ICP monitoring remains high=25, despite of cerebral resuscitation. POC-TCD shows normal MCA blood flow, hence high ICP was accepted. Day 3 post op, she shows clinical signs of increase ICP, right craniectomy side was tense. With the POC-TCD, scan noted reversal blood flow indicating poor cerebral pressure perfusion. (RI 1, PI=3). Second cycle of cerebral resuscitation was activated, POC-TCD was used to fine tune the MAP to achieve optimal cerebral perfusion pressure.

Patient was treated for 3 months in PICU, she survived with tracheostomy, and daily living dependency.

CONCLUSION

POC-TCD may be use as a modality to assess intracranial pressure monitor, cerebral perfusion pressure. Hence resulting in objective cerebral resuscitation, and improve mortality and morbidity.

ID 11

INCIDENCE OF NOSOCOMIAL INFECTION AMONG COVID-19 PATIENTS RECEIVING TOCILIZUMAB IN THE INTENSIVE CARE UNIT (ICU): A RETROSPECTIVE STUDY

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BACKGROUND

Severe cytokine release syndrome may lead to rapid clinical deterioration and multiorgan failure in COVID-19 infection. Intravenous tocilizumab (IVT), an interleukin-6 inhibitor was associated with reduced 28-day mortality (RECOVERY trial). However, risk of increased nosocomial infection is concerning.

OBJECTIVE

To study the incidence of nosocomial infection and 28-day mortality rate, among COVID-19 ICU patients receiving IVT.

METHOD

This retrospective study involves adults with severe COVID-19 illness admitted to ICU HRPB from May till December 2021. Data was traced from hospital electronic medical record. Our primary outcome is the incidence of nosocomial infection (manifested by positive growth in body fluid cultures taken at least 24 hours after IVT administration) and secondary outcome is 28-day mortality rate.

RESULTS

60 patients with laboratory-confirmed diagnosis of COVID-19 received a single dose of IVT (varying between 400–800mg depending on weight) plus intravenous methylprednisolone 2mg/kg within 24 hours of ICU admission. Their mean age was 53.36 (±Standard deviation 11.6) years. 56 (93.3%) required mechanical ventilation. 23 (38.3%) developed nosocomial infection within 48 hours of IVT administration. 11 patients had more than one positive culture. 10 had bacteremia with Pseudomonas aeruginosa being the most common causative bacteria. 17 positive cultures were identified from sputum or tracheal aspirate samples, of which Acinetobacter baumannii predominates. Seven urine samples showed positive growth, mostly Candida non-albicans. 16 (26.7%) deaths within 28 days of ICU admission were recorded.

CONCLUSION

The mortality risk was comparable to that of RECOVERY trial finding. Despite IVT being highly-efficacious in modifying host immune response, relatively-high incidence of nosocomial infection has occurred. High index of clinical suspicion should be maintained and early empirical antibiotics may be considered.

ID 15

ALTEPLASE: POSSIBLE SAVIOR OF COVID-19 PULMONARY ARTERY THROMBOSIS ASSOCIATED OBSTRUCTIVE SHOCK OR REFRACTORY HYPOXIA. A CASE SERIES

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COVID-19 is associated with prothrombosis & coagulopathy. Here, 2 cases of COVID-19 with massive pulmonary thrombosis were successfully thrombolyzed with intravenous alteplase without any major bleeding complications.

Case-1 is a 51-year-old fully vaccinated lady, with hypertension & Stage-5a COVID-19, requiring HFNC. On Day-10, her oxygenation worsened with development of shock, which required intubation & high dose noradrenaline infusion. ECHO showed right heart dilatation with McConnell's sign. CTPA revealed extensive secondary & tertiary order pulmonary artery thrombosis. Thrombolysis with IV alteplase 100mg was given over 2 hours. IVI Noradrenaline was tapered down then off. Repeated ECHO showed improvement in right heart function. Subcutaneous LMWH was started subsequently with no major bleeding complications. Patient was extubated after 2 days and discharged home on Day-23.

Case-2 is a 31-year-old fully vaccinated healthy male having Stage-5b COVID-19 & ARDS, requiring mechanical ventilation with high settings. His oxygenation progressively worsened despite immunomodulator & prone ventilation. Day-6 CTPA revealed right main pulmonary thrombosis. No obstructive shock and ECHO revealed no right heart failure. In view of refractory hypoxia and high risk of obstructive shock progression, thrombolysis was given with IV alteplase 100mg over 2 hours. Gas exchange improved with reducing ventilator requirements. Subcutaneous LWMH was started subsequently with no major bleeding complications. Patient was extubated after 6 days and discharged home on Day-29.

2019 ESC Guideline states that alteplase can be used for reperfusion for high-risk pulmonary embolism with haemodynamic instability. As of date, no guidelines available on alteplase usage in treating COVID-associated-pulmonary-thrombosis. This case series highlight possible usage of alteplase in these scenarios.

ID 18

SHORTAGE OF SEDATIVES, ANALGESIA AND NEUROMUSCULAR BLOCKERS DURING COVID-19 PANDEMIC: HOSPITAL PUTRAJAYA EXPERIENCE

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The rapid spread of the severe acute respiratory syndrome coronavirus-2 (COVID-19) has led to a global pandemic. The 2019 coronavirus disease (COVID-19) presents with a spectrum of symptoms ranging from mild to critical illness requiring intensive care unit (ICU) admission. Acute respiratory distress syndrome is a major complication in patients with severe COVID-19 disease which require respiratory support, including invasive ventilation. Surges in volume of patients requiring mechanical ventilation coupled with prolonged ventilator days and the high sedative dosing requirements observed quickly led to the depletion of stock in Hospital Putrajaya. The high demand for several therapies, including sedatives, analgesics, and paralytics, among COVID-19 patients requiring mechanical ventilation, has created pressure on the supply chain resulting in shortages in these critical medications used by COVID-19 patients. Hospital Putrajaya are among affected with this shortage being one of the hospitals in Lembah Klang where the highest number of COVID-19 patients being admitted and ventilated. We have come with mitigation and conservative strategies for sedatives, analgesics and neuromuscular blockers in the setting of drug shortage. Several of these alternative approaches have demonstrated acceptable levels of sedation, analgesia, and paralysis in different settings but they are not commonly used in the ICU. Management of sedation in such patients should consider individual properties and side effect profiles of various agents, unique patient characteristics and health care system limitations, as well as local and national drug shortages. Multimodal sedation regimens with early enteral transitions might be indicated and can help minimize side effects of individual drugs, development of tolerance, and limitations imposed by the supply chain has given acceptable outcome to be used in this landscape of drug shortage.

ID 22

PREVALENCE OF VITAMIN D DEFICIENCY AND ITS ASSOCIATION WITH OUTCOME IN ELDERLY PATIENTS ADMITTED TO MALAYSIAN INTENSIVE CARE UNIT

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OBJECTIVES

Data on vitamin D deficiency in elderly patients admitted to Intensive Care Unit (ICU) in tropical countries are scarce. The objectives of this study were to assess the prevalence of vitamin D deficiency and its association with outcome in elderly patients admitted to ICU in Malaysia.

METHODS

This was a prospective cohort study of 139 patients aged ≥60 years old admitted to ICU of two university-affiliated hospitals in Malaysia. Plasma vitamin D was measured on ICU admission with Finecare FIA Meter that calculated 25-hydroxyvitamin D2/D3 concentration.

RESULTS

Mean age was 68 ± 7 years and pneumonia were the commonest admission diagnosis (22.3%). Vitamin D insufficiency was present in 93 patients (66.9%) and 77 patients (55.4%) were deemed to be vitamin D deficient. Significant risk factors for vitamin D deficiency were female gender (OR 2.4, 95% CI 1.2-4.9) and frailty (OR 1.4, 95% CI 1.1-1.7). After adjusting for gender and frailty, vitamin D deficiency was not an independent predictor of ICU-mortality or prolonged ICU-stay in our elderly cohort.

CONCLUSIONS

Despite the tropical weather, vitamin D deficiency is common in elderly patients admitted to our local ICU, but its association with outcome is uncertain. A larger multi-center prospective cohort study is warranted to confirm or refute our current findings.

This study is funded by the Malaysian Ministry of Higher Education under the grant FRGS/1/2020/SKK01/USM/03/1.

ID 24

EFFECT OF TIMING INTERVAL OF CONTINUOUS RENAL REPLACEMENT THERAPY INITIATION AND OUTCOME IN SEPSIS ASSOCIATED ACUTE KIDNEY INJURY

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OBJECTIVES

The effect of timing of Continuous Renal Replacement Therapy(CRRT) initiation on mortality among septic acute kidney injury(AKI) patients is largely inconclusive. We aim to elucidate the effect of timing of CRRT initiation stratified by onset of AKI on 28-day mortality among critically ill septic AKI patients started on CRRT and associated factors that contribute to increase in mortality.

METHODS

In this retrospective observational study, data of sepsis-associated AKI patients who underwent CRRT in ICU Hospital Pulau Pinang from January 2018 to June 2019 were collected. Data were divided into early and late group based on median interval of CRRT initiation stratified by the onset of AKI.

RESULTS

The median interval between onset of AKI and CRRT initiation was 29.4 hours. During the study period 84.7% of patients died within 28 days of ICU admission. Age, initial lactate level, Sequential Organ Failure Assessment(SOFA) score and Simplified Acute Physiology Score(SAPS) II were independently associated with increased overall 28-day mortality ($p<0.05$). Late CRRT initiation was associated with lower mortality rate compared to early initiation ($p<0.001$). 50% of patients in the early group passed away on the 3rd day of ICU admission (95% CI=2.2, 3.8) compared to the 12th day of ICU admission (95% CI=9.1, 14.9) in the late group. Gender, ethnicity, pre-existing co-morbid, site of infection and microorganisms involved were not significantly associated with 28-day mortality.

CONCLUSION

Late initiation of CRRT was associated with lower 28-day mortality. Further research involving multicenter with bigger sample size and longer duration is needed, with particular attention on the duration and modalities of CRRT on renal recoveries and long-term outcome of patients.

ID 25

CASE REPORT: VOLATILE SEDATION VIA ANAESTHETIC CONSERVING DEVICE FOR MANAGEMENT OF LIFE-THREATENING ASTHMA

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Life threatening bronchial asthma often requires mechanical ventilation with sedation in the intensive care unit (ICU). Intravenous sedative agent usage in ICU is well established with numerous supporting guidelines, however is associated with unwanted side effects such as drug accumulation, organ dependent elimination and prolonged ventilation. Volatile anaesthetic agents such as sevoflurane are commonly used in the operation theatre, but is not conventionally used in ICU settings due to unfamiliarity with this approach, lack of effective delivery devices, ambient contamination and difficulty in monitoring agent concentration. Development of the anaesthetic conserving device (AnaConDa) has made the use of inhalational sedation in the ICU more feasible. The device comes in the form of a modified heat moisture exchanger with a miniature porous evaporator rod to convert volatile anaesthetic agents from liquid to vapour state, allowing administration using syringe infusion.

We report two cases of patients with life-threatening asthma resistant to conventional treatment who were sedated with inhalational sedation using the AnaConDa device, keeping the depth of anaesthesia at minimum alveolar concentration (MAC) of 0.7-1.0. The first patient was kept sedated for 5 days while the second was 4 days with inhalational sedation. Both patient also had acute kidney injury though already present prior to commencement of inhalation sedation. Further research is required to identify any relationship between duration of inhalational sedation and acute kidney injury.

ID 27

A CASE REPORT OF THE DENGUE IMPERSONATOR: MALARIA IN DISGUISE

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INTRODUCTION

Malaria is not uncommon in this part of Southeast Asia, with Sabah reporting the greatest number of cases in 2017. The recent increasing trend of zoonotic malaria infection has imposed a new threat and great concern among medical practitioners in Malaysia. Recent report has identified significant increase in human infection of *Plasmodium knowlesi*, a simian malaria parasite, among farmers, plantation workers, and individuals undertaking activities in forested area in east coast peninsular of Malaysia, especially Pahang. As the initial clinical manifestations of malaria mimic other common tropical diseases such as dengue, diagnosing malaria at early stage of the disease is challenging as both infections are endemic in this part of the world. Delayed recognition and management will lead to multiorgan failure and death.

CASE PRESENTATION

This is a case of 38-year-old gentleman, who lived in urban area of Pahang, presented to emergency department at day 5 of illness with fever, headache, myalgia and arthralgia. He was initially treated as dengue infection, with positive dengue non-structural protein 1 antigen and immunoglobulin G rapid tests. However, he continued to be febrile before becoming delirious and hypotensive with cardiac arrhythmia after 5 days of hospital admission. He was subsequently admitted to intensive care. At day 9 of illness, dengue serology was negative and a blood film revealed *Plasmodium knowlesi* with a parasite count of 68,000/µl. The patient was treated with artesunate-doxycycline and made a good recovery in ICU. This case highlights the importance of good history taking, the possibility of false-positive dengue rapid test and the need to consider malaria as differential diagnosis when clinical features do not correlate with dengue infection and no improvement seen with appropriate treatment.

ID 28

KNOWLEDGE, ATTITUDE AND BELIEFS TOWARDS BRAIN DEATH AND ORGAN TRANSPLANTATION AMONG MUSLIM CRITICAL CARE STAFF

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INTRODUCTION

Deceased organ donation rates are low in Malaysia with studies showing Malays of Muslim faith, being reluctant towards organ donation compared to others. Healthcare professionals play such a vital role in assuring the success of an organ transplantation program.

OBJECTIVE

This study demonstrates the factors that influence the acceptance of Muslim critical care workers towards deceased organ transplantation.

METHODS

A cross sectional survey using a validated questionnaire was conducted among healthcare professionals in four areas of critical care in a teaching hospital in Kuala Lumpur. Attitude, religious beliefs and knowledge on Islamic jurisprudence pertaining to brain death and deceased organ transplantation were analysed with willingness to donate as the dependant variable.

RESULTS

This study had 232 (68%) respondents. 136 (58.6%) respondents expressed willingness to donate own organs. Within this cohort, 63 (46%) respondents had their family known of their decision and 37 (27%) is a registered organ donor. Doctors and respondents in the neurosurgical unit demonstrated the highest level of knowledge on brain death and organ donation. However, overall knowledge scores were moderate. Willingness towards donation was strongly associated with confidence in organ transplantation as a good form of treatment. Although 95.3% of respondents had knowledge that Malaysian Fatwa allows for deceased organ donation, only 75.9% agree that their religion did not object to deceased organ donation, with 83.7% and 81.4% respectively agree that switching off mechanical ventilator and removing organs from brain dead patients for transplantation is permissible in Islam. There were no association of Islamic beliefs with willingness to donate.

CONCLUSION

In order to improve the perception of the public, in depth knowledge of brain death and deceased organ transplantation in the muslim healthcare professionals are important. Willingness of healthcare professionals to embrace the notion of organ transplantation would have a direct impact on organ donation rates.

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NEONATAL PURPURA FULMINANS AS A PRESENTATION OF MULTISYSTEM INFLAMMATORY SYNDROME IN NEONATES (MIS-N)

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Maternal past SARS-CoV-2 infection may potentially cause a hyperinflammatory syndrome in neonates due to transplacental transfer of antibodies. We report a case of MIS-N which presented as neonatal purpura fulminans.

CASE PRESENTATION

A 31-hour of life newborn girl presented with fever, hypotensive shock and recurrent seizures. She was fluid resuscitated, mechanically ventilated and supported with three vasoactive agents. There was extensive purpura over the extremities which rapidly evolved to gangrenous digits. She had multiorgan failure with myocarditis, cardiac dysfunction, acute kidney injury, liver impairment and coagulopathy. Father had COVID-19 infection eight weeks prior, but mother was negative though symptomatic. Inflammatory markers were elevated and anti-SARS-CoV-2 spike protein IgG was positive. This raised the suspicion of MIS-N. Thrombophilia study showed reduced protein C, protein S and antithrombin III activity and there is no evidence of bacterial or viral infection. Cranial computed tomography revealed cerebral venous sinus thrombosis with cerebral oedema. She was treated with intravenous antibiotics, methylprednisolone, immunoglobulin, unfractionated heparin, and was commenced on continuous veno-venous haemodiafiltration. Nucleocapsid protein IgG were positive for both the patient and mother further supporting the diagnosis of MIS-N. She deteriorated and succumbed on day 6 of admission.

CONCLUSION

This case highlights the challenges in the diagnosis and management of MIS-N in post COVID-19 vaccination era. Often, the past history of maternal COVID-19 infection could not be elicited from clinical history as many were undiagnosed. Nucleocapsid protein antibody testing could help to differentiate vaccine versus infection-derived antibody and aid in the prompt diagnosis of MIS-N.

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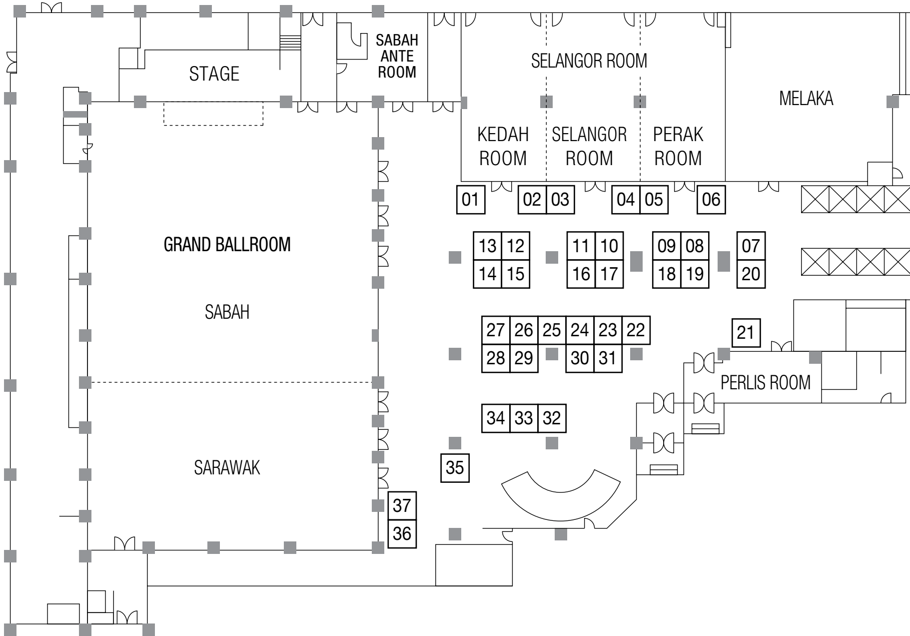

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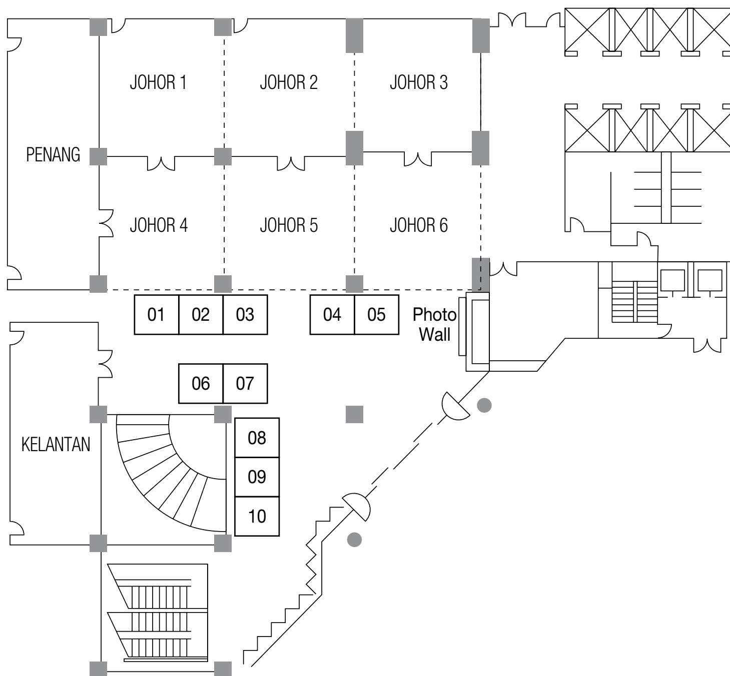

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