ANNOUNCEMENT

Malaysian Society of Intensive Care

ASMIC 2025

ANNUAL SCIENTIFIC MEETING ON INTENSIVE CARE

12th-14th September 2025

Precongress 11th September 2025

Shangri-La Kuala Lumpur, Malaysia

www.msic.org.my

Malaysian Society of Intensive Care (MSIC) Executive Committee 2023-2025

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Dr Premela Naidu Sitaram
Dr Lavitha Vyveganathan
Dr Fong Kean Khang
Dr Asmah Zainudin
Dr Chong Jia Yueh

WELCOME MESSAGE

We are very pleased to invite you to the 2025 Annual Scientific Meeting on Intensive Care (ASMIC), a key highlight of our Malaysian Society of Intensive Care's calendar.

ASMIC, now into the third decade since its inception, has long established itself as the leading platform in Malaysia for knowledge sharing and collaboration on the latest in intensive care medicine. We shall continue to keep this great momentum going in the 2025 edition through a great line up of local and international speakers, covering a broad range of topics that will be in tune with evolving challenges in intensive care medicine. There will be multiple scientific sessions on offer, from the pre-congress workshops down to the plenaries, symposia or meet the experts. All are designed to engage your inquisitive mind and get you to bring new knowledge and insights back to your workplace.

ASMIC is also a much-awaited time of the year to rekindle old friendships and foster new networking and collaborations. The familiar ambience of our regular venue, the Shangri-La Kuala Lumpur, will surely help add to the excitement of seeing and catching up with friends and colleagues.

So, let's come and join us at ASMIC 2025!

Professor Dr Nor'azim Mohd Yunos
President
Malaysian Society of Intensive Care (MSIC)

WELCOME MESSAGE

Dear esteemed collegues and friends,

On behalf of the Organising Committee of ASMIC 2025 and the Malaysian Society of Intensive Care Medicine, it is my great pleasure to welcome you to the Annual Scientific Meeting on Intensive Care (ASMIC) 2025. ASMIC 2025 will be held in Shangri-La Kuala Lumpur from the 11th to 14th September 2025.

ASMIC 2025 is a gathering that brings together both adult and paediatric intensivists to share knowledge, advance clinical practice, and strengthen our critical care community.

We will explore the latest evidence, innovations, and approaches that are shaping the future of critical care across all age groups. From high-level scientific presentations by renowned international and local experts, to practical, hands-on workshops, ASMIC 2025 is designed to stimulate discussion, provoke thought, and inspire progress. Catering to different interest groups, there will be 4 pre-congress workshops, 7 plenaries, 19 symposia and 6 meet-the expert sessions.

In intensive care, we face some of the most complex and challenging situations in medicine, whether at the bedside of a critically ill adult or a child. This conference celebrates the diversity of our experiences while highlighting the shared principles that unite us: excellence in care, multidisciplinary collaboration, and a relentless pursuit of better outcomes for our patients.

Together, let us ignite new ideas and inspire change, so join us at ASMIC 2025 this September.

Dr Lavitha Vyveganathan
Organising Chairperson
Annual Scientific Meeting on Intensive Care 2025

INVITED SPEAKERS

Australia
Priya Nair

Belgium
Jan De Waele

India
Jayashree Muralidharan
Sheila Nainan Myatra
Swagata Tripathy

Italy
Felice Eugenio Agrò
Maurizio Cecconi

Singapore
Lee Jan Hau
Gene Ong
Jacqueline Ong
See Kay Choong
Wong Yu Lin

United Kingdom
Olusegun Olusanya
Reinout Mildner
Victoria Metaxa

United States of America
Vinay Nadkarni

Vietnam
Phan Huu Phuc

Malaysia

Abdul Hafiz Shaharudin
Adlihafizi Ab Aziz
Adlina Hisyamuddin
Aizad Azahar
Akmal Hafizah Zamli
Amelia Mohamed Ain
Anis Siham Zainal Abidin
Ani Suraya Ghani
Azmin Huda Abdul Rahim
Chin Ji Zhang
Chong Jia Yueh
Chong Shu Juen
Chor Yek Kee
Chuah Soo Lin
Ismail Tan Mohd Ali Tan
Gaithridevi V Singam
Gan Chin Seng
Kee Pei Wei
Koo Thomson
Olive Lee
Lee Pei Chuen
Lee Siew Wah
Leong Chee Loon
Looi Chui Li
Mohamed Hassan Haji Mohamed Ariff
Muhamad Hafizzi Mohd
Nahla Irtiza Ismail
Nor'azim Mohd Yunos
Nurul Zaynah Nordin
Pon Kah Min
Pravin Sugunan
Rafidah Atan
Rahela Ambaras Khan
Rohaini Suhari
Sam Yazan
Tan Sin Yee
Wong Sau Wei

PROGRAMME SUMMARY

Date / Time	12th September 2025 (Friday)	13th September 2025 (Saturday)	14th September 2025 (Sunday)
0800 - 0830	Registration	0745 - 0900 Coffee with the Expert 1 2 3	Coffee with the Expert 4 5 6
0830 - 0900	PLENARY 1		
0900 - 0930		PLENARY 2	PLENARY 5
0930 - 1000	OPENING CEREMONY	PLENARY 3	PLENARY 6
1000 - 1030		PLENARY 4	Presentation of T Sachithanandan Best Oral Paper and Best Poster Awards
1030 - 1100	Tea / Visit to Trade Exhibition	Tea / Visit to Trade Exhibition	Tea / Visit to Trade Exhibition
1100 - 1130	SYMPOSIA	SYMPOSIA	SYMPOSIA
1130 - 1200			17 18 19
1200 - 1230	1 2 3 4	9 10 11 12	
1230 - 1300	Lunch Symposium 1	Lunch Symposium 2 / Official Poster Round	Lunch
1300 - 1330			
1330 - 1400	Lunch / Friday Prayers / Visit to Trade Exhibition		
1400 - 1430		SYMPOSIA	
1430 - 1500	SYMPOSIA		
1500 - 1530		13 14 15 16	
1530 - 1600	5 6 7 8	Tea Symposium 2	
1600 - 1630	Tea Symposium 1	Annual General Meeting of the Malaysian Society of Intensive Care	
1630 - 1700			
1700 - 1730	T Sachithanandan Oral Free Paper Presentation		
1730 - 1800			

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

1. Fluid Therapy Revisited: Refining Principles, Reinforcing Practices

(Limited to 30 participants only)

Chairperson: Poh Yeh Han

Co-Chairpersons: Nurul Liana Roslan, Nurul Zaynah Nordin

Venue: Grand Johor Room

Fluid management is crucial for maintaining tissue perfusion and organ function, requiring a delicate balance to avoid both hypovolemia and fluid overload, with the goal of optimizing hemodynamics and patient outcomes. The International Fluid Academy Malaysian Chapter will conduct a workshop covering key principles of fluid therapy with a good mix of lectures and breakaway hands-on stations. Come and exchange ideas with experts in the field from both local and international faculty.

Programme

0730 - 0830	Registration
0830 - 0845	Introduction *Poh Yeh Han*
0845 - 0915	Mastering the Fundamentals of Fluid Therapy *Olusegun Olusanya*
0915 - 0945	Decoding Fluid Choices: Crystalloids, Colloids, and Beyond! *Nor'azim Mohd Yunos*
0945 - 1015	Morning Tea *Poh Yeh Han*
1015 - 1045	Assessing Fluid Responsiveness at the Bedside *Sheila Nainan Myatra*
1045 - 1115	Evidence-Based Fluid Therapy: Top 10 Game-Changing Trials Every Clinician should Know *Shaik Farid*
1115 - 1315	**INTERACTIVE STATIONS** S1 - Fluid Choices in Malaysia: What's on the Shelf and When to Use them? *Nurul Liana / Nurul Zaynah*

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

S2 - Fluid Responsiveness: More Than Just Ultrasound!
Sheila Nainan Myatra

S3 - Inside the Abdomen: Monitoring Intraabdominal Pressure
Olusegun Olusanya / Poh Yeh Han

S4 - Advanced Hemodynamic Device: Externally Calibrated Pulse Wave Analysis
Yap Mei Hoon

S5 - Advanced Hemodynamic Device: Internally Calibrated Pulse Wave Analysis
Mohd Fitry

1315 - 1400 Lunch Break
Nurul Liana

1400 - 1430 Hypovolemia vs Hypervolemia
Mahathar

1430 - 1500 The Science of Fluid Resuscitation: Myths and Realities
Olusegun Olusanya

1500 - 1700 **INTERACTIVE STATIONS**

S6 - Fluid Resuscitation in ARDS
Sheila Nainan Myatra / Poh Yeh Han

S7 - Fluid Resuscitation in Challenging Heart & Kidneys
Ismail Tan / Nurul Zaynah

S8 - Ultrasound in Action: Assessing LVOT VTI, CO & SVR
Sri Rao

S9 - Ultrasound in Action: VeXUS + FV Doppler
Olusegun Olusanya

S10 - Guiding Resuscitation with Clotting Insights
Mohd Fitry / Nurul Liana

1700 Closing Ceremony
Nurul Zaynah

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

2. Critical Care Nephrology for Nurses

(Limited to 40 participants only)

Chairperson: Asmah Zainudin

Venue: Melaka Room

This one-day programme is designed to help ICU nurses to enhance their knowledge and skills in caring for patients with renal failure, patients undergoing dialysis, improving their clinical competencies and fostering teamwork and communication. This programme comprises of lectures in the morning followed by practical group discussions in the afternoon.

Programme

0800 - 0830	Registration
0830 - 0915	Renal Physiology and Pathophysiology in Critically Ill *Asmah Zainudin*
0915 - 1000	Recognition and Assessment of AKI *Nahla Irtiza*
1000 - 1030	Tea Break
1030 - 1115	Fluid and Electrolyte Management in Critically Ill Patients with AKI *Azmin Huda*
1115 - 1200	Renal Replacement Therapy: Overview *Siti Rohaya*
1200 - 1215	Vascular Access Care *Nahla Irtiza*
1215 - 1230	Q&A
1230 - 1330	Lunch
1330 - 1630	**SKILL STATION** Station 1: CRRT Set Up *Siti Rohaya* Station 2: Troubleshooting *Nahla Irtiza* Station 3: Effective Monitoring during Dialysis *Azmin Huda*
1630 - 1700	End of Programme and Tea Break

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

3. Paediatric Airway Management and Mechanical Ventilation in the Critically Ill Child

(Limited to 36 participants only)

Chairpersons: Chong Jia Yueh, Tang Swee Fong

Venue: Sarawak Room

Respiratory illnesses are common in children and some experience severe disease requiring respiratory support. Technological advances have improved the way respiratory support is provided. There are many modes of ventilation which can often be confusing to the managing clinician at the bedside. This workshop will provide the basics required to provide safe and effective mechanical ventilation to our patients. This workshop will be beneficial to Intensivists, Emergency Physicians, Paediatricians, Intensive Care Fellows, and Medical Officers who provide mechanical ventilation to children.

Programme

0800 - 0815	Registration
0815 - 0830	Welcome
0830 - 0915	**NONINVASIVE VENTILATION** Why do I Start with HFNC? *Anis Siham* Why do I Start with NIV? *Chor Yek Kee*
0915 - 0945	Invasive Ventilation: Firstly Secure the Airway *Rufinah Teo*
0945 - 1015	Deciphering the Modes of Ventilation *Pravin Sugunan*
1015 - 1045	Coffee Break
1045 - 1115	Understanding What the Ventilator Tells Us - Interpretation of Curves and Waveforms *Gan Chin Seng*
1115 - 1145	The Role of APRV, NAVA and Bioimpedance *Pon Kah Min*

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

1145 - 1215	Weaning and Extubation Readiness *Thavani Thavarajasingam*
1215 - 1230	Q&A
1230 - 1400	Lunch
1400 - 1700	Skill Station 1: Airway Management *Rufinah Teo / Chong Jia Yueh*
	Skill Station 2: Ventilator Graphics *Gan Chin Seng / Thavani Thavarajasingam*
	Skill Station 3: APRV / NAVA / Bioimpedance *Pon Kah Min / Lee Siew Wah*
	Skill Station 4: Case Studies in ARDS *Chor Yek Kee / Pravin Sugunan*
1700	End of Programme and Tea Break

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

4. Critical Appraisal of the Literature: A Quick Guide for Beginners

(Limited to 40 participants only)

Chairperson: Rafidah Atan

Venue: Selangor Room / Perak Room

Facilitators: Chaw Sook Hui, Lai Nai Ming, Nor'azim Mohd Yunos, Rafidah Atan, Vinod Laxmikanth Balasundra

Ever felt overwhelmed by loads of 'latest' journal articles on your e-mail or social media screens? Ever wondered how to decide if they are reliable, and whether the findings should change your practice? If all this bothers you, you will find this workshop useful.

This workshop will take you step by step through three important types of journal articles for the busy clinicians - Randomised Controlled Trial, Cohort and Systematic Review. You will gain the skills to critically appraise the methodology of clinical trials, to make sense of the results and their significance; and to judge if the results apply to your patients. You will be clearer on the concept of Evidence-Based Medicine (EBM) and more confident with terms like randomisation, relative risks, number needed to treat and confidence intervals. The workshop will also cover the use of online resources like PubMed and Cochrane, and the application of GRADE criteria in the development of clinical guidelines.

The facilitators include senior consultants who are experienced in facilitating EBM workshops locally and internationally. Adult or Paediatric Intensive Care trainees, Anaesthesiology trainees, specialists or any doctor who wishes to read journal articles better are warmly welcome.

Programme

0800 - 0830	Registration
0830 - 0850	Introduction: EBM - What and Why *Nor'azim Mohd Yunos*
0850 - 0920	Clinical Questions and Study Designs *Lai Nai Ming*
0920 - 1000	Basic Statistics for Literature Appraisal *Chaw Sook Hui*
1000 - 1030	Coffee Break
1030 - 1115	Appraising Randomized Controlled Trials (RCT): Theory *Vinod Laxmikanth Balasundra*

PRE-CONGRESS WORKSHOP
11th September 2025 (Thursday)

1115 - 1200	Appraising Cohort Studies: Theory *Lai Nai Ming*
1200 - 1245	Appraising Systematic Reviews: Theory *Rafidah Atan*
1245 - 1345	Lunch
1345 - 1600	Appraising RCT: Hands On (Small Group)
	Appraising Cohort Study: Hands On (Small Group)
	Appraising Systematic Review: Hands On (Small Group)
1600 - 1620	GRADE Criteria - From Evidence to Recommendation *Nor'azim Mohd Yunos*
1620 - 1630	Summary, Evaluation and Feedback
1630	Tea Break

DAILY PROGRAMME
12th September 2025 (Friday)

0800 - 0845 Registration

0845 - 0930 **PLENARY 1** *Sabah Room*

Chairperson: Noor Airini Ibrahim

Tracheal Intubation in ICU: Life Saving or Life Threatening
Sheila Nainan Myatra

0930 - 1030 **OPENING CEREMONY**

1030 - 1100 Tea / Visit to Trade Exhibition

1100 - 1240 *Sabah Room*	1100 - 1240 *Johor Room*	1100 - 1240 *Melaka Room*	1100 - 1240 *Sarawak Room*
SYMPOSIUM 1 ***Haemodynamics*** ***Chairpersons:*** ***Kee Pei Wei /*** ***Aizad Azhar***	**SYMPOSIUM 2** ***Future of ICU*** ***Chairpersons:*** ***Rafidah Atan /*** ***Seethal Padmanathan***	**SYMPOSIUM 3** ***Intensive Care Nursing I*** ***Chairperson:*** ***Looi Chui Li***	**SYMPOSIUM 4** ***Paediatrics: Respiratory*** ***Chairperson:*** ***Pon Kah Min***
Should we Predict Fluid Responsiveness in All Patients? ***Sheila Nainan Myatra***	Environmental Sustainability - Lets Go for a Greener ICU ***Jan De Waele***	Caring for the Older ICU Patient ***Chong Shu Juen***	Managing a Child with Post-Airway Surgery ***Ani Suraya Ghani***
Practical Approach to Fluid Administration ***Maurizio Cecconi***	Artificial Intelligence in the ICU ***See Kay Choong***	Pharmacokinetics and Pharmacodynamics of Drugs: What Nurses Should Know? ***Tan Sin Yee***	Mechanical Power and Driving Pressure: How is it Relevant for me at the Bedside ***Reinout Mildner***
Haemodynamics Approaches in Pulmonary Hypertension and Right Ventricular Dysfunction ***Priya Nair***	Personalised Medicine in Intensive Care ***Swagata Tripathy***	VAP and New Ventilator Care Bundle ***Adlina Hisyamuddin***	Challenges in Paediatric Ventilator Liberation ***Jacqueline Ong***
Echocardiography Use at Bedside to Assess the Patient with Shock ***Olusegun Olusanya***	Evidence-Based End-of-Life Care - Is it Even Possible? ***Victoria Metaxa***	Optimising Nutrition Enhances Recovery from Critical Illness ***Adlihafizi Ab Aziz***	NAVA in Children - How and When? ***Reinout Mildner***

1240 - 1430 **Lunch Symposium 1** *Sabah Room*

Lunch / Friday Prayers / Visit to Trade Exhibition

DAILY PROGRAMME
12th September 2025 (Friday)

1430 - 1610 *Sabah Room*	1430 - 1610 *Johor Room*	1430 - 1610 *Melaka Room*	1430 - 1610 *Sarawak Room*
SYMPOSIUM 5 ***Sepsis*** ***Chairpersons:*** ***Amelia Mohamed Ain / Koo Thomson***	**SYMPOSIUM 6** ***Trauma Resuscitation*** ***Chairpersons:*** ***Lavitha Vyveganathan / Abdul Hafiz Shaharudin***	**SYMPOSIUM 7** ***Quality and Safety*** ***Chairpersons:*** ***Nor'azim Mohd Yunos / Chong Shu Juen***	**SYMPOSIUM 8** ***Paediatrics: Resuscitation & Simulation*** ***Chairperson:*** ***Olive Lee***
Sepsis Management in Resource Limited Settings: Challenges and Solutions ***Sheila Nainan Myatra***	Shock in Trauma Patients: Is There Always Bleeding? ***Victoria Metaxa***	Key Considerations and Approaches for Disclosing Medical Errors ***Mohamed Hassan Haji Mohamed Ariff***	Paediatric Resuscitation: What's New in 2025? ***Jayashree Muralidharan***
Vasopressor Therapy in Septic Shock: Present and Future ***Maurizio Cecconi***	End Points of Trauma Resuscitation ***Chin Ji Zhang***	How do I Drive a Quality Improvement Program in my ICU? ***Swagata Tripathy***	Paediatric Resuscitation: How Long and How Far? ***Vinay Nadkarni***
Priorities in Source Control for Sepsis and Septic Shock ***Jan De Waele***	Should I Stop? How long Should CPR be Performed After a Cardiac Arrest? ***Ismail Tan Mohd Ali Tan***	The Safe ICU: Dream and Reality ***Priya Nair***	The Polytrauma Paediatric Patient: Management in the ED ***Gene Ong***
Biomarkers to Guide Antibiotic Therapy in Sepsis and Septic Shock ***Muhamad Hafizzi Mohd***	TTM After Cardiac Arrest: Still 36 or Let it Go? ***Wong Yu Lin***	Handing Over and Taking Over in ICU: An Art as well as Science ***Nahla Irtiza Ismail***	Enhancing Patient Safety Through Simulation ***Pon Kah Min***

1610 - 1645 **Tea Symposium 1 *(Schmidt Biomedtech)*** *Sabah Room*

Real-Time Insights, Rapid Response: How IT Transforms Sepsis Management in Hospitals
Sam Yazan

1645 - 1800 **T Sachithanandan Oral Free Paper Presentation** *Melaka Room*

DAILY PROGRAMME
13th September 2025 (Saturday)

0745 - 0900 *Penang Room*	0745 - 0900 *Johor Room*	0745 - 0900 *Melaka Room*
COFFEE WITH THE EXPERT 1 ***Moderator:*** ***Gaithridevi V Singam*** Hemodynamic Deterioration in the ARDS Patient *Maurizio Cecconi*	**COFFEE WITH THE EXPERT 2** ***Moderator: Chin Ji Zhang*** Sepsis and Antimicrobial Timing, Whats Right? *Jan De Waele*	**COFFEE WITH THE EXPERT 3 *(Paediatrics)*** ***Moderator: Lee Pei Chuen*** How do I Manage the Child with Significant Burns? *Lee Siew Wah*

0900 - 0930 **PLENARY 2 *(Paediatrics)*** *Sabah Room*
Chairperson: Chor Yek Kee
Do I have the Tools to Manage PARDS? Translating Research into Practice
Reinout Mildner

0930 - 1000 **PLENARY 3** *Sabah Room*
Chairperson: Louisa Chan Yuk Li
Fluids: From Theory to Bedside Practice in Haemodynamic Management of Critically Ill
Maurizio Cecconi

1000 - 1030 **PLENARY 4** *Sabah Room*
Chairperson: Louisa Chan Yuk Li
Global Challenges for Intensive Care
Jan De Waele

1030 - 1100 Tea / Visit to Trade Exhibition

DAILY PROGRAMME
13th September 2025 (Saturday)

1100 - 1240 *Sabah Room*	1100 - 1240 *Johor Room*	1100 - 1240 *Melaka Room*	1100 - 1240 *Sarawak Room*
SYMPOSIUM 9 ***Respiration / Ventilation*** ***Chairpersons:*** ***Ismail Tan Mohd Ali Tan / Muhamad Hafizzi Mohd***	**SYMPOSIUM 10** ***Antibiotics*** ***Chairpersons:*** ***Fong Kean Khang / Looi Chui Li***	**SYMPOSIUM 11** ***Geriatrics / Renal*** ***Chairpersons:*** ***Poh Yeh Han / Adlina Hisyamuddin***	**SYMPOSIUM 12** ***Paediatrics: Research & Quality Improvement*** ***Chairperson:*** ***Gan Chin Seng***
ESICM Guidelines on ARDS: Definitions and Phenotyping ***Maurizio Cecconi***	Integrating Antimicrobial Stewardship in Daily Practice ***Azmin Huda Abdul Rahim***	More than One Week in ICU: What Predicts Outcome in Elderly Patients? ***Priya Nair***	Barriers of Protocolized Patient Care in PICU - Lessons from a Sedation Protocol ***Jacqueline Ong***
Monitoring in Mechanical Ventilation, What's Hot and What's Not? ***See Kay Choong***	Prolonged Infusion of Beta-Lactam Antibiotics: Current Evidence and Practical Solutions ***Jan De Waele***	Role of Time-Limited Trials in ICU Admissions of the Elderly ***Wong Yu Lin***	PICU Outcome: What Should We Measure? ***Pravin Sugunan***
Steroids in ARDS and Severe CAP - A Changing Paradigm ***Koo Thomson***	Antibiotic De-Escalation in 2025 ***Rahela Ambaras Khan***	Biomarkers in AKI: Early Detection and Prognosis? ***Gaithridevi V Singam***	My Journey in Research in PICU ***Jayashree Muralidharan***
Diaphragmatic Ultrasound as a Predictive Tool for Weaning Success in ICU ***Olusegun Olusanya***	When Not to Give Antibiotics ***Aizad Azhar***	The Deadly Tango: Cardiorenal Syndrome in Critical Illness, from the Nephrologist Point of View ***Nurul Zaynah Nordin***	What can we Learn from Negative Paediatric Clinical Trials? ***Vinay Nadkarni***

1240 - 1400 *Sabah Room*	1240 - 1400 *Johor Room 3 & 6*
Lunch Symposium 2 Advanced Airway Clearance and Non-Invasive Ventilation in the ICU ***Felice Eugenio Agrò***	**Official Poster Round**

DAILY PROGRAMME
13th September 2025 (Saturday)

1400 - 1540 *Sabah Room*	1400 - 1540 *Johor Room*	1400 - 1540 *Melaka Room*	1400 - 1540 *Sarawak Room*
SYMPOSIUM 13 ***Neurosciences*** ***Chairpersons:*** ***Azmin Huda Abdul Rahim / Chin Ji Zhang***	**SYMPOSIUM 14** ***Organisation / Ethics*** ***Chairpersons:*** ***Nahla Irtiza Ismail / Gaithridevi V Singam***	**SYMPOSIUM 15** ***Intensive Care Nursing II*** ***Chairperson:*** ***Adlina Hisyamuddin***	**SYMPOSIUM 16** ***Paediatrics: Sepsis*** ***Chairperson:*** ***Chor Yek Kee***
Transfusion Triggers in TBI ***Wong Yu Lin***	Teamwork and Leadership in the Critical Care Unit ***Maurizio Cecconi***	Weaning from Mechanical Ventilation ***Kee Pei Wei***	Cytokine Storm vs Sepsis ***Lee Jan Hau***
Intracranial Pressure: Current Perspectives on Physiology and Monitoring ***Amelia Mohamed Ain***	Current Challenges in ICU Organisation: How to Manage Demand? ***Nor'azim Mohd Yunos***	Early Rehabilitation: RECOVER Initiative Project ***Rohaini Suhari***	From Sepsis Definition to Practice ***Phan Huu Phuc***
Shock After Brain Injury ***Swagata Tripathy***	Goals of Care and Medical Futility ***See Kay Choong***	Barriers to Effective Delirium Management by ICU Nurses ***Looi Chui Li***	POCUS in Identifying Focus of Sepsis in PICU ***Chor Yek Kee***
Role of POCUS in Neurocritical Care ***Olusegun Olusanya***	Daily Ethical Challenges: The Grey Zone ***Victoria Metaxa***	Nursing Care in the Post-Cardiac Arrest ***Abdul Hafiz Shaharudin***	Optimisation of Antibiotics in Patients with Multiorgan Dysfunction ***Olive Lee***

1540 - 1610 **Tea Symposium 2 *(Pfizer)*** *Sabah Room*

The Role of Novel Antibiotics in the Management of Multidrug Resistance Gram Negatives Bacteria Infections
Leong Chee Loon

1645 - 1745 **Annual General Meeting of the Malaysian Society of Intensive Care**

DAILY PROGRAMME
14th September 2025 (Sunday)

0800 - 0900 *Penang Room*	0800 - 0900 *Johor Room*	0800 - 0900 *Melaka Room*
COFFEE WITH THE EXPERT 4 ***Moderator:*** ***Lavitha Vyveganathan*** A Step Escalation Approach in Family Conflicts *Victoria Metaxa*	**COFFEE WITH THE EXPERT 5** ***Moderator: Poh Yeh Han*** Help! My Patient with Heart Failure is Stuck in my ICU *Olusegun Olusanya*	**COFFEE WITH THE EXPERT 6** ***Moderator: Chuah Soo Lin*** Difficult Conversations in PICU *Chong Jia Yueh*

0900 - 0930 **PLENARY 5 *(Paediatrics)*** *Sabah Room*

Chairperson: Gan Chin Seng

Green and Sustainable ICUs

Vinay Nadkarni

0930 - 1000 **PLENARY 6** *Sabah Room*

Chairperson: Lavitha Vyveganathan

The Cardiogenic Shock Team - Coordinated Care Where Minutes Matter

Priya Nair

1000 - 1015 Presentation of T Sachithanandan Best Oral Paper and Best Poster Awards

1015 - 1045 Tea / Visit to Trade Exhibition

DAILY PROGRAMME
14th September 2025 (Sunday)

1045 - 1225 *Sabah Room*	1045 - 1225 *Johor Room*	1045 - 1225 *Sarawak Room*
SYMPOSIUM 17 ***Wellness*** ***Chairpersons:*** ***Lavitha Vyveganathan /*** ***Adlihafizi Ab Aziz*** Compassionate Fatigue of ICU Staff ***Victoria Metaxa*** Fearless in ICU: Effective Communication in ICU Hierarchy ***Olusegun Olusanya*** Diversity in Critical Care ***Wong Yu Lin*** Mastering Wellness in High Stakes Medicine ***Priya Nair***	**SYMPOSIUM 18** ***Nutrition / Rehabilitation*** ***Chairpersons:*** ***Asmah Zainuddin /*** ***Amelia Mohamed Ain*** Energy Expenditure in Critical Care ***See Kay Choong*** Calorie Target in ICU: The Evolving Picture ***Swagata Tripathy*** Critical Care Rehabilitation: A Multidisciplinary Approach Using The REhabilitation of Critically OVErt Towards Recovery (RE-C-OVE-R) Framework ***Akmal Hafizah Zamli*** Post ICU Clinics: Rationale and Framework ***Rafidah Atan***	**SYMPOSIUM 19** ***Paediatrics: Neurology*** ***Chairperson:*** ***Thavani Thavarajasingam*** Optimal Management Updates in Convulsive Status Epilepticus ***Wong Sau Wei*** Sympathetic Storms are Real: Recognition and Management ***Chuah Soo Lin*** Is it Possible to Avoid Delirium ***Lee Pei Chuen*** The New Paediatric Brain Death Guidelines: How will it Change my Practice? ***Gan Chin Seng***

1230 - 1330 Lunch

CONGRESS INFORMATION

REGISTRATION FEES

Category	On or Before 15th July 2025	From 16th July to 31st August 2025	On-Site
Local			
MSIC Member	RM 1150	RM 1200	RM 1300
Non-MSIC Member	RM 1250	RM 1300	RM 1400
Medical Officer	RM 1050	RM 1100	RM 1200
Nurse / Allied Health Professional	RM 1000	RM 1050	RM 1050
Overseas			
Delegate	USD 450	USD 500	USD 600
Nurse / Allied Health Professional	USD 300		

PRE-CONGRESS WORKSHOPS ***(11th September 2025, Thursday)*** *(subject to availability of places at the workshops)*	**On-Site**
1. Fluid Therapy Revisited: Refining Principles, Reinforcing Practices	RM 400
2. Critical Care Nephrology for Nurses	RM 250
3. Paediatric Airway Management and Mechanical Ventilation in the Critically Ill Child	RM 400
4. Critical Appraisal of the Literature: A Quick Guide for Beginners	RM 300

The above rates are inclusive of the 8% 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:

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- Papers to be submitted must be intensive care related topics.
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- Abstracts previously presented will not be accepted.
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- Summary of the results obtained.
- Statement on the conclusion reached.

FREE COMMUNICATIONS

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ORAL PRESENTATIONS

ID 11 PREDICTIVE AND DIAGNOSTIC UTILITY OF SERUM PHOSPHATE IN CARDIAC SURGERY- ASSOCIATED ACUTE KIDNEY INJURY IN CARDIOTHORACIC INTENSIVE CARE UNIT (CICU)

Ho Ming Hui[1], Azrina Md Ralib[1], Mohd Khairul Anwar A Rahim[2]

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ID 12 PAEDIATRIC OUT-OF-THEATRE PROCEDURAL SEDATION AND ANALGESIA (PSA) INCLUDING TARGET-CONTROLLED INFUSION (TCI) BY INTENSIVISTS AT A QUATERNARY PRIVATE HOSPITAL: AN AUDIT ON EFFICACY AND SAFETY

Anis Adilah 'Izzati Azizan[1], Olive Lee, Gan Chin Seng, Anis Siham Zainal Abidin[2]

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[2]Pediatrics Intensive Care Unit, Sunway Medical Centre, Subang Jaya, Selangor, Malaysia

ID 26 STEROFUNDIN VERSUS NORMAL SALINE IN FLUID RESUSCITATION OF DIABETIC KETOACIDOSIS: IMPACT ON RESOLUTION RATE AND ELECTROLYTE PROFILE

Shi Jie How[1,2], Kamaruddin Ibrahim[1,2], Wan Fadzlina Wan Muhd Shukeri[1,2], Nurul 'Aifaa Mohd Azmi[1,2], Mohd Zulfakar Mazlan[1,2]

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ID 46 EFFECT OF EARLY INITIATION OF CONTINUOUS RENAL REPLACEMENT THERAPY ON MORTALITY IN PATIENT ADMITTED TO INTENSIVE CARE UNIT: A SINGLE CENTRE OBSERVATIONAL STUDY

Muhamad Aizuddin Bin Ismail, Mohd Zulfakar Bin Mazlan

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ID 53 OPTIMUM INITIATION TIME TO START MAINTENANCE DOSE OF MEROPENEM AFTER THE LOADING DOSE FOR EXTENDED INFUSION: A RETROSPECTIVE ANALYSIS IN CRITICALLY ILL PATIENTS

Muhammad Nordin M Saud[1], Wan Rahiza W Mat[2], Aliza M Yusof[2], Cheah S Kian[2], Lau Chee Lan[1]

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ORAL PRESENTATIONS

ID 57 THE IMPACT OF LEAN MANAGEMENT APPROACH IN REDUCING PERIPHERAL VENOUS LINE (PVL) RELATED INJURIES IN PICU: A QUALITY IMPROVEMENT PROJECT

Merissa Iddlin[1], Noriszaty Abdul Rahman[1], Tee May Fung[1], Farawaty Md Jelan[1], Janice Saw Mei Yin[2], Gan Chin Seng[1], Anis Siham Zainal Abidin[1]

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ID 11

PREDICTIVE AND DIAGNOSTIC UTILITY OF SERUM PHOSPHATE IN CARDIAC SURGERY- ASSOCIATED ACUTE KIDNEY INJURY IN CARDIOTHORACIC INTENSIVE CARE UNIT (CICU)

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OBJECTIVES

To determine the incidence of acute kidney injury (AKI) after cardiac surgery and evaluate serum phosphate's utility in identifying AKI, predicting dialysis need, and assessing in-hospital mortality in CICU patients.

METHODS

We retrospectively analyzed 282 adults who underwent coronary artery bypass grafting at a Malaysian tertiary center. Serial serum phosphate and creatinine levels were measured perioperatively. AKI was defined using KDIGO creatinine based criteria. ROC curve analysis assessed phosphate's diagnostic and predictive performance for AKI, dialysis, and mortality.

RESULTS

AKI occurred in 48.2% of patients; 11% required dialysis and died. Phosphate levels at 36 and 48 hours post-op were significantly higher in AKI patients ($p=0.003$ and <0.001). The strongest predictor for AKI was phosphate at 48 hours (AUC 0.810; cut-off 1.31 mmol/L; sensitivity 74%, specificity 77.9%). For dialysis prediction, phosphate had an AUC of 0.744 (cut-off 0.4 mmol/L; sensitivity 93.3%, NPV 99.8%). Although phosphate poorly predicted mortality (AUC 0.416), it maintained a high NPV (96.3%). A rapid phosphate drop between baseline and 12 hours was associated with higher AKI and dialysis risk (AUC 0.592 and 0.685), possibly indicating early renal stress and impaired handling.

CONCLUSION

Serum phosphate is a simple, accessible marker for identifying patients at risk of AKI and dialysis post cardiac surgery. Despite limited mortality prediction, its high NPV supports routine use in ICU monitoring, especially in resource constrained settings.

ID 12

PAEDIATRIC OUT-OF-THEATRE PROCEDURAL SEDATION AND ANALGESIA (PSA) INCLUDING TARGET-CONTROLLED INFUSION (TCI) BY INTENSIVISTS AT A QUATERNARY PRIVATE HOSPITAL: AN AUDIT ON EFFICACY AND SAFETY

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OBJECTIVES

To define the number of total PSA cases performed by intensivists and its safety profiles.

METHODS

Data collected using a PSA form from September 2024 till March 2025, including all patients <18 years old. Data on demography, indication, procedure location, choice of medications, route of administration, type of monitoring, adverse events and discharge conditions were captured. Adverse events were defined as desaturation to less than 90%, apnea, stridor, laryngospasm, bronchospasm, cardiovascular instability, paradoxical reactions, emergence reactions, emesis, or aspiration.

RESULTS

During a seven-month period, procedural sedation and analgesia (PSA) were administered in 122 cases. Of these, 97.5% were completed successfully without any adverse events, while only three cases (2.5%) experienced minor, reversible complications. The median patient age was 82 months, with 41.5% of the cohort being male. A majority of procedures (82.6%) were conducted for imaging and oncology-related indications. The mean procedure duration was 35 minutes, with a maximum duration of 200 minutes. Most procedures (71.9%) were performed in the oncology ward, with continuous monitoring of vital signs pre-, intra-, and post-procedure. The most frequently administered sedative agents were intravenous ketamine (48.8%) and propofol (27.4%). TCI was utilized in 13.2% of cases, with a mean duration of 64.8 minutes and a maximum duration of 200 minutes. All patients achieved full recovery, with an Aldrete score ≥9 recorded at one hour post-procedure and at discharge.

CONCLUSION

The use of PSA in children is common in hospital. The success rate was high and reported adverse event for intravenous bolus and TCI were extremely low. A structured programme with protocols, guidelines and trained medical practitioners are essential in providing an excellent clinical service.

ID 26

STEROFUNDIN VERSUS NORMAL SALINE IN FLUID RESUSCITATION OF DIABETIC KETOACIDOSIS: IMPACT ON RESOLUTION RATE AND ELECTROLYTE PROFILE

Shi Jie How[1,2], Kamaruddin Ibrahim[1,2], Wan Fadzlina Wan Muhd Shukeri[1,2], Nurul 'Aifaa Mohd Azmi[1,2], Mohd Zulfakar Mazlan[1,2]

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OBJECTIVES

This research compared the impact of Sterofundin versus Normal Saline on the rate of diabetic ketoacidosis (DKA) resolution and post-resuscitation electrolyte stability.

METHODS

A prospective, open label, randomized controlled trial was undertaken in the intensive care units of Hospital Pakar Universiti Sains Malaysia (HPUSM) across 24 months. Adults (18 years and older) with confirmed DKA were randomly assigned to receive either Sterofundin or normal saline as per a standardized resuscitation protocol.

RESULTS

Fifty-eight patients participated in the study. No statistically significant difference was detected in the duration of DKA resolution between the two groups. Participants resuscitated with Sterofundin attained a pH of 7.3 or greater slightly more quickly than those who received normal saline (adjusted mean difference 1.80 hours; 95% CI: -2.81, 6.41; P = 0.436). They also reached a serum bicarbonate level of at least 15 mmol/L somewhat earlier (adjusted mean difference 3.77 hours; 95% CI: -0.81, 8.34; P = 0.104). Both post-resuscitation electrolyte levels, renal function, and acid-base balance were alike in both study groups.

CONCLUSION

The findings indicate that Sterofundin and normal saline demonstrated comparable effectiveness in achieving DKA resolution and maintaining electrolyte stability following fluid resuscitation in this cohort. No clinically significant differences were observed between the two fluids regarding the rate of metabolic recovery or post-treatment electrolyte profiles.

ID 46

EFFECT OF EARLY INITIATION OF CONTINUOUS RENAL REPLACEMENT THERAPY ON MORTALITY IN PATIENT ADMITTED TO INTENSIVE CARE UNIT: A SINGLE CENTRE OBSERVATIONAL STUDY

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OBJECTIVES

To determine whether early initiation of CRRT reduces 28-day mortality, mechanical ventilation duration, and ICU length of stay among critically ill patients with acute kidney injury (AKI), and to identify independent predictors of 28-day mortality.

METHODS

We performed a single-centre retrospective cohort study of 239 adult ICU patients who received CRRT at HRPZ II, Kota Bharu (Jan 2021-Dec 2023). Patients were stratified into early (n = 125) or delayed (n = 114) based on median serum creatinine (303 µmol/L), serum urea (19.5 mmol/L), and urine output (5 mL/h) at CRRT initiation. Primary outcome was 28-day mortality; secondary outcomes were mechanical ventilation days and ICU length of stay. Multivariate logistic regression was used to identify factors independently associated with 28-day mortality.

RESULTS

Although the early-initiation group had lower baseline severity scores (mean SOFA 10.6 vs. 12.1; APACHE II 20.9 vs. 26.0), there were no significant differences between early and delayed groups in 28-day mortality (64.0% vs. 66.7%;P=0.685), mechanical ventilation days (9.9±14.4 vs. 9.6±9.4;P=0.848), or ICU length of stay (12.6±14.4 vs. 11.0±9.4 days;P=0.455). On multivariate analysis, independent predictors of 28-day mortality were higher SOFA score (OR 1.15), lower serum bicarbonate (OR 0.93), and reduced urine output (OR 0.98). Timing of CRRT initiation was not significantly associated with mortality (OR 1.23).

CONCLUSION

Early CRRT did not confer a survival advantage, reduce ventilator days, or shorten ICU stay compared to delayed initiation. Mortality correlated more with the degree of organ dysfunction and acid–base derangement at CRRT initiation, supporting an individualized, physiology-driven timing strategy over arbitrary early versus delayed thresholds.

ID 53

OPTIMUM INITIATION TIME TO START MAINTENANCE DOSE OF MEROPENEM AFTER THE LOADING DOSE FOR EXTENDED INFUSION: A RETROSPECTIVE ANALYSIS IN CRITICALLY ILL PATIENTS

Muhammad Nordin M Saud[1], Wan Rahiza W Mat[2], Aliza M Yusof[2], Cheah S Kian[2], Lau Chee Lan[1]

[1]Department of Pharmacy, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia
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OBJECTIVES

This study aimed to determine whether initiating the maintenance dose of meropenem at the half-interval (4 hours after the loading dose) improves the probability of target attainment (PTA) and clinical outcomes compared to full-interval (8 hours) initiation in critically ill patients.PTA reflects the likelihood that a dosing regimen achieves optimal pharmacodynamic exposure. For meropenem, this is defined as maintaining free drug concentrations above four times the minimum inhibitory concentration (100% fT > 4×MIC) throughout the dosing interval, with PTA ≥90% considered the therapeutic goal.

METHODS

This retrospective study included 100 ICU patients who received meropenem via extended infusion. Patients were grouped by maintenance dose initiation time: half-interval or full-interval after a standard loading dose. PTA was estimated via Monte Carlo simulation using the TDMx platform. Clinical outcomes included all-cause ICU and 90-day mortality, SOFA score improvement, and development of multidrug-resistant (MDR) organisms. Logistic regression identified predictors of achieving PTA ≥90%.

RESULTS

The half-interval group had higher median PTA (98.8% vs. 67.6%) and PTA ≥90% attainment (88% vs. 8%, $p < 0.001$). All-cause ICU mortality (16.0% vs. 84.0%), 90-day mortality (30.0% vs. 90.9%), SOFA improvement (78.0% vs. 12.0%), and MDR cases (13.0% vs. 34.1%, $p = 0.020$) also favored the half-interval group. Logistic regression confirmed half-interval dosing (OR 112.8, 95% CI: 18.6-684.0) and CrCl (OR 0.93, 95% CI: 0.91-0.96) as predictors.

CONCLUSION

Half-interval initiation significantly improves PTA and outcomes, supporting its adoption in critically ill meropenem-treated patients.

ID 57

THE IMPACT OF LEAN MANAGEMENT APPROACH IN REDUCING PERIPHERAL VENOUS LINE (PVL) RELATED INJURIES IN PICU: A QUALITY IMPROVEMENT PROJECT

Merissa Iddlin[1], Noriszaty Abdul Rahman[1], Tee May Fung[1], Farawaty Md Jelan[1], Janice Saw Mei Yin[2], Gan Chin Seng[1], Anis Siham Zainal Abidin[1]

[1]Paediatric Intensive Care Unit, Sunway Medical Centre, Subang Jaya, Selangor, Malaysia
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OBJECTIVES

To enhance efficiency by streamlining processes, minimizing waste and improve quality of care via plan-do-study-act (PDSA) audit cycle for PVL related injuries aiming to reduce PVL-related injuries by 50% within 4 months.

METHODS

Two audit cycles were done for all patients admitted to PICU from 16/3-22/3/2025 and 7/7-13/7/2025. Data collection was comprehensive, involving incident reporting forms, audit forms, and data logs from smart infusion pumps, which included reviews of dynamic pressure system limits and alarms. A value stream mapping of nursing workflows was conducted to identify inefficiencies. Interventions implemented encompassed targeted training on vascular access care, proper handling of infusion smart pumps, and accurate documentation of practices.

RESULTS

Total infusion events recorded were 44 and analyzed 37. The results were significant. In the first audit cycle, PVL-related injuries accounted for 4% of the incidents. Majority infusions were using syringe pumps (81%) via PVL access (81%). PVL type was predominantly 24G catheters. Nurse compliance with established workflows was only 33%. Smart pump programming was 93% correct, with high medication viscosity of 11%. Following interventions, the second audit cycle reported zero PVL-related injuries. All devices used were PVL access, with 60% employing 24G catheters. Notably, nurse compliance with the workflow and correct smart pump programming improved to 100%.

CONCLUSION

Integrating lean management and the PDSA cycle substantially reduced PVL-related injuries in the PICU by enhancing patient safety and optimizing clinical workflows. The next phase involves creating an evidence-based PVL care bundle, to be embedded in the EMR with checklists and structured charting modules for real-time compliance monitoring.

POSTER PRESENTATIONS

ID 02 **ASEPTICALLY-PREPARED READY-TO-USE INSULIN SYRINGES REDUCE WASTAGE AND COST, AND SAVES NURSING TIME**

Weison L, Esther S
Pharmacy & Supplies Department, Institut Jantung Negara, Kuala Lumpur, Malaysia

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Khazrul Nizar Abd Kader, Izzuddin A, Cheah S K, Izaham A, Maryam Budiman
Department of Anaesthesiology & Intensive Care, Hospital Canselor Tuanku Muhriz, Kuala Lumpur, Malaysia

ID 04 **A RED HERRING FALLACY IN CRITICAL CARE: SEVERE HYPOKALAEMIC PERIODIC PARALYSIS MIMICKING A NEUROLOGICAL EMERGENCY**

Khazrul Nizar Abd Kader, Izzuddin A, Cheah S K, Izaham A, Wan Rahiza Wan Mat
Department of Anaesthesiology & Intensive Care, Faculty of Medicine, Hospital Canselor Tuanku Muhriz, Kuala Lumpur, Malaysia

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Nitthya Sukumar, Mohd Fazrin Bin Mohd Anuar
Department of Anesthesiology and Intensive Care, Hospital Kemaman, Kemaman, Terengganu, Malaysia

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Nur Athirah Binti Nawi, Nur Nadia Binti Yusuf, Tuan Nor Ain Binti Tuan Md Zazawi, Aljadidi Bin Sulaiman, Noryani Binti Mohd Samat
Anaesthesiology and Intensive Care Unit, Hospital Sultan Ismail Petra, Kelantan, Malaysia

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Kamaleshwary Varatharaju, Premela Naidu Sitaram
Intensive Care Unit, Subang Jaya Medical Centre, Subang Jaya, Selangor, Malaysia

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Ngu Pei Hwa, Mahazir Bin Kassim, Seethal Padmanathan, Adlina Binti Hisyamuddin, Omar Bin Sulaiman, Tuang Wei Xuan
Hospital Sultanah Aminah, Johor Bahru, Johor, Malaysia

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Siti Nur Akmar Ali Absar, Nor'Azim Mohd Yunos
Department of Anaesthesiology, Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

ID 13 **HIDDEN STRANGULATION: A MISSED CENTRAL AIRWAY OBSTRUCTION IN CRITICAL CARE - A CASE SERIES OF OVERLOOKED RED FLAGS**

Che Ku Nur Atirah Bt Che Ku Hashim, Jett Lin Hau
Department of Anaesthesiology and Critical Care, Hospital Cyberjaya, Selangor, Malaysia

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Harishini Jagatheesen, Yusnizah M Nasir, Lai Kaychee
Anaesthesiology and Critical Care Department, Hospital Banting, Selangor,Malaysia

ID 15 **A TANGLED WALTZ: THE UNSEEN STRUGGLE OF ATRIAL FIBRILLATION AND MYASTHENIA GRAVIS**

Zafirah Aqilah Zainal Abidin, Nornafiza Mian, Siti Khadijah Keliwon
Department of Anaesthesiology and Critical Care Unit, Hospital Cyberjaya, Selangor, Malaysia

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Claudia S F Lim[1], S L Chuah[1], Michelle S Y Low[1], Y S Chee[1], Yogiswaran A D[2]
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Reana Syazreen, Attiyah Samsudin, Louise Ngu, Nisah Abdullah
Pediatric Department, Hospital Sultanah Aminah, Johor Bahru, Johor, Malaysia

ID 18 **POINT PREVALANCE STUDY OF STRATEGIES TO PREVENT DEEP VEIN THROMBOSIS PROPHYLAXIS IN CRITICAL CARE PATIENTS IN A PRIVATE HOSPITAL**

Low Xiu Hui, Yasini Ramanya Ramaiah, Charmaine Anne, Gayathiri Narendranath, Premela Naidu Sitaram
Intensive Care Unit, Subang Jaya Medical Centre, Subang Jaya, Selangor, Malaysia

POSTER PRESENTATIONS

ID 19 **PERIOPERATIVE ANAESTHESIA RELATED DEATH**

Mohd Rohisham Zainal Abidin, Muhamad Azfar Sabihin
Anaesthesia and Intensive Care Unit, Hospital Tengku Ampuan Rahimah, Klang, Selangor, Malaysia

ID 20 **A RARE ESOPHAGO-PERICARDIAL FISTULA WITH PYOPERICARDIUM**

Syaqira Kamal, Syafiqah Zambri, Sanah Mohtar, Phang T S
Anesthesiology and Critical Care Unit, Sarawak General Hospital, Kuching, Sarawak, Malaysia

ID 21 **NAVIGATING THE EDGE OF SURVIVAL: ECMO FOR SEVERE CARDIAC COMPROMISE IN CHILDREN**

Nurul Asyikin Bt Rosli, Nurul Amani Bt Abd Ghani, Pon Kah Min
Department of Paediatric, Hospital Pulau Pinang, Penang, Malaysia

ID 22 **ANTIBIOTIC PRESCRIBING IN THE INTENSIVE CARE UNIT OF A PRIVATE TERTIARY CARE HOSPITAL**

Au Chi Yan[1], Timothy William[2]
[1]Pharmacy Department, Subang Jaya Medical Centre, Selangor, Malaysia
[2]Infectious Disease, Subang Jaya Medical Centre, Selangor, Malaysia

ID 24 **OUTCOMES OF DIFFERENT CRRT DOSAGES IN SEPSIS-ASSOCIATED AKI: A SINGLE-CENTER EXPERIENCE**

P F Yong[1], K W Gan[1], Y K Chor[1], O P E Lee[1,2]
[1]Paediatric Intensive Care, Sarawak General Hospital, Sarawak, Malaysia
[2]Paediatric Intensive Care, Sunway Medical Centre, Selangor, Malaysia

ID 25 **GUIDED BY CLOT: ROTEM AS THE COMPASS IN THE STORM OF DENGUE-ASSOCIATED HAEMORRHAGE - A CRITICAL CARE PERSPECTIVE**

Siti Nur Akmar Ali Absar, Mohd Fitry Zainal Abidin, Syed Hussein Syed Azhar
Department of Anaesthesiology, Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

ID 27 **WHO SPEAKS FOR THE SILENT? ETHICS AND LAWS OF CONSENT IN INCOMPETENT, UNREPRESENTED ICU PATIENTS IN MALAYSIA**

Loo Wing Hoh[1], Goh Kay Mint[2]
[1]Deparment of Anaesthesiology and Intensive Care, Institut Jantung Negara, Kuala Lumpur, Malaysia
[2]Department of Anaesthesiology and Intensive Care, Hospital Ampang, Selangor, Malaysia

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Siti Syuhada Ab Rahman, Amani Binti Abd Ghani, Pon Kah Min
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ID 02

ASEPTICALLY-PREPARED READY-TO-USE INSULIN SYRINGES REDUCE WASTAGE AND COST, AND SAVES NURSING TIME

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OBJECTIVES

Tight glycemic control using continuous insulin infusion which has shown to reduce the risk of surgical site infections, is an important component in the management of patients undergoing cardiac surgery. Insulin is dispensed by pharmacy in penfill cartridges; the nurse withdraws the correct amount and further dilutes the insulin carefully to avoid solution bubbling to prepare the final infusion. Unused portion of the cartridge is discarded when insulin is eventually discontinued. We sought to reduce this wastage.

METHODS

A pilot to compound and dispense ready-to-use insulin syringes prepared aseptically was conducted. Each batch of 30 ready-to-use syringes containing 50 units of insulin each, was prepared by the Aseptic unit pharmacy staff. The number of syringes dispensed to cardiac surgery patients who required insulin in the intensive care unit between 14-27 April 2025 were monitored. Insulin wastage, cost of compounding and man-hours were measured.

RESULTS

145 ready-to-use syringes derived from 24.2 insulin penfills requiring 4.8 man-hours were dispensed to 66 patients who needed insulin infusion during the study period. In comparison, 67 insulin penfills would have been required using the conventional nurse-diluted method involving 24.1 man-hours. We reduced insulin wastage by 62.7%, which translated to approximately RM2600/month in savings, consumables costs by 48% and man-hours by 80%.

CONCLUSION

Centralised production of ready-to-use insulin syringes offers several advantages to conventional nurse-diluted syringes. These include reducing wastage of unused insulin, saving cost and nursing medication preparation time, and fulfilling quality standards in supplying the most ready-to-use form of medication at the point-of-care. The clinicians and nurses can focus on providing timely treatment and patient care post cardiac surgery.

ID 03

ACUTE LATE-ONSET ENCEPHALITIS IN SEVERE DENGUE COMPLICATED BY THYROID STORM: A CASE REPORT

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BACKGROUND
Dengue virus infection is a common arboviral illness where neurological involvement is a rare but critical complication. The diagnosis of dengue encephalitis is often challenging, particularly when confounded by a concurrent metabolic crisis such as a thyroid storm, which can mimic or mask primary neurological insults. We report a case of late-onset dengue encephalitis complicated by a newly diagnosed thyroid storm.

CASE PRESENTATION
A 30-year-old female was admitted to the ICU for severe dengue with compensated shock. Serial blood investigations revealed progressive thrombocytopenia (nadir 5 x 10^9/L) and transaminitis, with normal C-reactive protein (CRP) and procalcitonin (PCT) levels. Persistent tachycardia disproportionate to her fever prompted thyroid function tests, which confirmed a thyroid storm. After initial stabilization and navigating the peak critical phase, she suffered a sudden neurological collapse on day eight of illness, with her GCS dropping to 3/15 with seizure-like activity. An EEG revealed severe diffuse cerebral disturbance, and neuroimaging ruled out acute intracranial hemorrhage. A diagnosis of late-onset dengue encephalitis was made. Management required a complex, simultaneous approach, including intravenous dexamethasone, anti-thyroid medications, and aggressive ICU support.

CONCLUSION
This case highlights the diagnostic and therapeutic challenges of managing concurrent life-threatening conditions. Late-onset encephalitis can be a significant complication of dengue, and a high index of suspicion must be maintained, even after the typical critical phase has passed. A systematic approach is crucial to delineate the primary cause of neurological deterioration when confounding factors like a thyroid storm are present.

ID 04

A RED HERRING FALLACY IN CRITICAL CARE: SEVERE HYPOKALAEMIC PERIODIC PARALYSIS MIMICKING A NEUROLOGICAL EMERGENCY

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BACKGROUND

Acute flaccid paralysis constitutes a neurological emergency with a broad differential diagnosis. Hypokalaemic Periodic Paralysis (HPP), a rare channelopathy, can manifest dramatically, closely mimicking common conditions such as an acute cerebrovascular event or Guillain-Barré Syndrome (GBS). This diagnostic ambiguity presents a considerable challenge in the critical care setting, where timely and accurate diagnosis is essential to guide appropriate therapy.

CASE PRESENTATION

A 42-year-old gentleman presented with acute quadriparesis and dysarthria. The clinical picture was confounded by a recent coral injury, a misleading clue that raised suspicion of envenomation by Vibrio alginolyticus - a marine bacterium known to produce potent neurotoxins. Following an unremarkable stroke workup, his condition deteriorated into acute hypercapnic respiratory failure, necessitating admission to the Intensive Care Unit (ICU) for invasive mechanical ventilation. The pivotal laboratory finding was profound hypokalaemia (1.6 mmol/L). An initial nerve conduction study further obscured the diagnosis, suggesting an Acute Motor Axonal Neuropathy (AMAN) pattern consistent with GBS. However, following aggressive potassium repletion, the patient achieved a complete and rapid neurological recovery. A subsequent nerve conduction study confirmed the normalisation of neuromuscular function, securing the diagnosis of HPP.

CONCLUSION

Severe HPP is a critical diagnosis capable of masquerading as a major neurological event, including its electrophysiological features. This case underscores the importance of considering severe metabolic derangements in the differential diagnosis of acute flaccid paralysis, particularly in the presence of confounding historical details. Prompt recognition and correction of hypokalaemia are paramount for ensuring rapid recovery and avoiding potentially harmful interventions.

ID 05

MATERNAL INFLUENZA PNEUMONIA AND ARDS IN A DISTRICT HOSPITAL: OVERCOMING CHALLENGES IN CRITICAL CARE

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BACKGROUND

Pregnant women are at increased risk for severe complications of influenza due to physiological and immunological changes, which can lead to acute respiratory distress syndrome (ARDS). Managing critically ill maternal patients in a district hospital poses unique challenges, particularly in resource-limited settings.

CASE PRESENTATION

We are presenting a 37-year-old primigravida at 30 weeks of gestation with chronic hypertension, gestational diabetes mellitus, and multiple comorbidities, who developed severe influenza A pneumonia complicated by ARDS. She required ICU admission, intubation, and total intravenous anesthesia for an emergency cesarean section. Her management included antiviral therapy, high-dose corticosteroids, prone ventilation, and hemodialysis. Despite developing ventilator-associated pneumonia and secondary infections, she made a full recovery following prolonged intensive care.

CONCLUSION

This case highlights the importance of early recognition, multidisciplinary collaboration, and evidence-based interventions - including antiviral therapy, respiratory support, and timely obstetric decisions - in managing severe maternal influenza in district hospitals. Preventive strategies like maternal influenza vaccination remain crucial in reducing morbidity and mortality in this vulnerable group.

ID 06

BEHIND THE HEADACHE: THE SILENT STRUGGLE IN CRYPTOCOCCAL MENINGITIS IN AN IMMUNOCOMPETENT YOUNG ADULT

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BACKGROUND

Cryptococcosis is a significant opportunistic fungal infection that is caused by *Cryptococcus neoformans*, more commonly associated with immunocompromised populations, and *Cryptococcus gatti*, increasingly been implicated in infections among immunocompetent individuals. We present a case of delayed diagnosis of cryptococcal meningitis in an apparently immunocompetent young adult, resulting in significant neurological deterioration, highlighting the critical need for clinical awareness and timely intervention to prevent adverse outcomes.

CASE PRESETATION

A 27-year-old gentleman with no significant medical history, presented with a prolonged generalized headache, photophobia, and vomiting that persisted over several months. Two weeks prior admission he developed right-sided facial weakness, numbness, dizziness, bilateral diplopia, reduced hearing of right ear and intermittent tinnitus. Upon presentation to the emergency department, he exhibited spontaneous horizontal nystagmus with neurological examination revealed cranial nerve 4^{th}, 6^{th}, and 7^{th} palsies. CECT brain scan showed no significant finding. Lumbar puncture was performed with high opening pressure and cerebrospinal fluid (CSF) chemistry reported of low glucose and normal protein level. India ink staining identified *Cryptococcus species*, and CSF culture confirmed *Cryptococcus neoformans/gattii*, diagnosing cryptococcal meningitis. He was started on antifungal therapy, including intravenous (IV) liposomal amphotericin B, IV flucytosine, and later transitioned to IV fluconazole. The patient developed central diabetes insipidus, leading to acute renal injury, and repeated CT scans showed cerebral oedema. He was declared brain dead after 16 days of admission.

CONCLUSION

This highlights the importance of considering CM in the differential diagnosis of patients presenting with unexplained neurological symptoms, regardless of immune status. Prompt recognition and initiation of appropriate antifungal therapy, along with effective management of intracranial pressure, remain essential for improving outcomes.

ID 07

CASE STUDY: IMPLICATIONS OF INITIATING SGLT2 INHIBITORS POSTOPERATIVE

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BACKGROUND

Sodium-glucose co-transporter 2 inhibitors (SGLT2i) are oral medications widely used in the management of type 2 diabetes mellitus (T2DM), with or without heart failure , to reduce the risk of cardiovascular events, death, and progression of chronic kidney disease (CKD).

While effective, these agents have been associated with a rare but serious and potentially life-threatening complication known as euglycemic diabetic ketoacidosis (euDKA). Unlike typical DKA, euDKA presents with severe metabolic acidosis with or without elevations blood glucose levels.

CASE PRESENTATION

We report the case of a morbidly obese 33-year-old female with T2DM , maintained on an SGLT2i , who underwent emergency surgery. Postoperative, she developed severe metabolic acidosis with only mild hyperglycemia. Evaluation of her clinical course, including premorbid status, reduced oral intake, surgical stress, and inadequate pain control, supported the diagnosis of euDKA. Prompt and appropriate therapy led to full resolution of metabolic derangement and glycemic control within 48 hours.

CONCLUSION

EuDKA is a serious, multi factorial complication associated with SGLT2i therapy. While restarting SGLT2i postoperative is often desirable for diabetes management, it is of utmost important to ensure the patient is not in a severe catabolic state as it perpetuate ketosis. This necessitates delaying SGLT2i resumption until the patient is stable with adequate oral intake. Close monitoring of blood glucose, ketone levels, and acid-base status is essential before and after surgery, particularly in unwell patients during the postoperative period. Early recognition and intervention are key to preventing morbidity and ensuring safe post surgical recovery.

ID 08

A NEUROLOGICAL MYSTERY. POST-MALARIA NEUROLOGICAL SYNDROME AFTER SEVERE *PLASMODIUM FALCIPARUM* MALARIA: A CASE REPORT

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BACKGROUND

Malaria remains endemic in Malaysia, causing significant morbidity and mortality, with severe neurological complications primarily linked to Plasmodium falciparum. Post-Malaria Neurological Syndrome (PMNS) is a rare, transient, immune-mediated neurological complication presenting after malaria resolution, characterized by diverse neurological manifestations and necessitating exclusion of alternative aetiologies.

CASE PRESENTATION

We report a case involving a 49-year-old previously healthy Malay male ship welder treated successfully in Angola for severe Plasmodium falciparum malaria complicated by acute liver dysfunction. Nine days post-treatment, he returned to Malaysia presenting with confusion, fever, chills, and cerebellar ataxia. Initial brain imaging was unremarkable. Empirical treatment for cerebral malaria or meningoencephalitis was initiated. However, his clinical course deteriorated on day three with a generalized tonic-clonic seizure requiring intensive care management, mechanical ventilation, sedation, analgesics, and antipsychotics for agitation and delirium.

Extensive investigations revealed negative malaria blood smears, elevated cerebrospinal fluid protein without pleocytosis, and normal neuroimaging studies. EEG showed diffuse encephalopathy. Other infectious and metabolic aetiologies were thoroughly excluded.

Based on these findings, a diagnosis of PMNS was made. Corticosteroid therapy was initiated with intravenous methylprednisolone (500 mg/day for three days) followed by oral prednisolone tapering, resulting in significant clinical improvement. The patient fully recovered neurologically, transitioning from ICU to general ward, and was discharged ambulatory without residual deficits after approximately three weeks.

CONCLUSION

This case underscores the necessity of high clinical suspicion for PMNS in patients developing neurological symptoms post-malaria clearance. Prompt diagnosis, comprehensive exclusion of alternative aetiologies, and early initiation of supportive and corticosteroid therapy may markedly improve patient outcomes and reduce healthcare resource utilization.

ID 10

EXPLORING THE SPECTRUM OF SEVERE COMMUNITY-ACQUIRED PNEUMONIA: A COMPARATIVE ANALYSIS OF AETIOLOGIES, CLINICAL CHARACTERISTICS AND OUTCOMES IN ELDERLY AND VERY ELDERLY ICU PATIENTS

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OBJECTIVES

To compare microbiological aetiologies, clinical characteristics, and ICU outcomes between elderly (65-79 years) and very elderly (≥80 years) patients admitted to ICU for severe community-acquired pneumonia (CAP).

METHODS

This retrospective cohort study included 112 patients aged ≥65 years admitted to ICU UMMC between January 2023 and December 2024 with severe CAP. Patients were stratified into 65-79 (n=88) and ≥80 years (n=24). Demographic, comorbidities, severity scores, microbial aetiologies, and outcomes were analysed. The primary outcome was ICU mortality. Severity score performance was assessed using ROC analysis.

RESULTS

The overall ICU mortality rate was 17.9% (15.9% in 65–79 vs 25% in ≥80, p=0.367). Both groups had comparable comorbidities, but chronic kidney disease was more common in the ≥80 group (37.5% vs 18.2%). Median APACHE II, CURB-65, and SOFA scores were similar across groups; however, among non-survivors, these scores were significantly higher ($p<0.01$). In multivariate logistic regression, both APACHE II (OR 1.14, $p<0.001$) and SOFA (OR 1.27, p=0.040) were independent predictors of ICU mortality. APACHE II had the best discriminatory ability in ≥80 (AUC=0.866), while SOFA performed best in 65–79 (AUC=0.775). CURB-65 performed poorly in 65–79 (AUC=0.531) but improved in ≥80 (AUC=0.787). No significant differences were seen in microbial aetiologies. Kaplan-Meier survival analysis showed lower survival in very elderly, though not statistically significant (p=0.167).

CONCLUSION

Very elderly ICU patients with severe CAP had higher hospital mortality and worse survival trends despite similar severity scores. This highlights the need for tailored triage and management strategy in this vulnerable population. CURB-65 is inadequate for ICU prognostication, particularly in elderly patients.

ID 13

HIDDEN STRANGULATION: A MISSED CENTRAL AIRWAY OBSTRUCTION IN CRITICAL CARE - A CASE SERIES OF OVERLOOKED RED FLAGS

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BACKGROUND

Central airway obstruction (CAO) is defined as airflow limitation due to >50% occlusion of trachea, main stem bronchus or bronchus intermedius. It often mimics common respiratory and cardiac conditions such as bronchospasm and heart failure, leading to missed diagnosis. It is important to identify key clinical red flags earlier before irreversible deterioration occurs.

CASE SERIES

Case 1: A 75-year-old man with chronic progressive positional and exertional dyspnoea initially diagnosed as COPD and heart failure, on re-evaluation of chest X-ray was found to have tracheal narrowing, along with hoarseness of voice and exertional stridor.

Case 2: A 67-year-old woman with chronic dyspnoea previously diagnosed as chronic lung disease presented in thyroid storm and was found to have severe tracheal narrowing on chest X-ray secondary to extraluminal mass compression.

Case 3: A 55-year-old man treated as community acquired pneumonia failed extubation attributed to bronchospasm initially. Reassessment of imaging revealed tracheal narrowing, with additional history of rapid worsening positional and exertional dyspnoea, dysphagia and hoarseness of voice in past six months. He was then found to have papillary thyroid cancer.

DISCUSSION

In COA it is important to obtain proper diagnosis before treatment. Key red flags such as progressive unexplained dyspnoea, hoarseness, stridor, dysphagia, and imaging findings should be recognized earlier. These cases demonstrate how maintaining a high index of suspicion, combined with careful bedside assessment and imaging review, can alter the outcomes.

CONCLUSION

Central airway obstruction may present similarly as benign respiratory and cardiac conditions. Early identification of red flags is essential in preventing life-threatening complications. Prompt diagnosis is crucial as it will alter patient outcomes.

ID 14

PERSISTENCE IN MANAGING SEVERE TETANUS IN A MINOR SPECIALIST HOSPITAL - A CASE REPORT

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BACKGROUD

Tetanus is caused by an exotoxin produced by bacterium *Clostridium tetani*. Patients can present with muscle rigidity, paroxysmal muscle spasms, respiratory distress, and dysautonomia which may last 4-6 weeks. Although tetanus is a rare disease in Malaysia now due widespread immunisation, sporadic cases do occur with mortality rate of 5%-50%.

CASE PRESENTATION

This is a case of a previously healthy 40 year old gentleman who presented with the complaint of body stiffness and difficulty in swallowing for two days with history of stepping on wood while walking barefoot in the jungle. On examination, it was noted that patient had trismus and intermittent opisthotonos. A wound measuring 0.5 cm was noted on the sole of his left foot. He was initially treated as moderate tetanus and then progressed to severe tetanus with autonomic dysfunction in ICU. He was in ICU for 7 weeks and had tracheostomy done on day 30 of admission.

Patient had refractory spasms that were difficult to control. His initial treatment included IM Human Tetanus Immunoglobulin, IM ATT, intravenous Metronidazole, intravenous diazepam boluses and wound debridement. Subsequently, multiple intravenous infusion sedatives and muscle relaxant were used like fentanyl, morphine, propofol, midazolam, precedex, phenobarbital, atracurium and rocuronium. Intravenous magnesium sulphate was used to control dysautonomia. Oral diazepam and Clonazepam were used alternatively.

On 5th week of admission, patient showed gradual resolution of spasms with preserved GCS and he was weaned to trachy mask. He transferred to general ward on 7th week of ICU admission to continue rehabilitation.

CONCLUSION

Management of severe tetanus in a resource-limited district hospital poses significant challenges. However, with persistence and appropriate treatment, favourable outcomes are achievable.

ID 15

A TANGLED WALTZ: THE UNSEEN STRUGGLE OF ATRIAL FIBRILLATION AND MYASTHENIA GRAVIS

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A myasthenic crisis complicated by cardiac arrhythmia is a serious, potentially life-threatening condition that poses significant challenges in clinical management. Myasthenia gravis (MG), an autoimmune neuromuscular disorder, can lead to severe respiratory failure and autonomic instability, complicating its treatment. When a myasthenic crisis is accompanied by recurrent atrial fibrillation (AF) with rapid ventricular response, the therapeutic approach becomes more complex. This case report discusses an elderly patient with newly diagnosed MG who was admitted to the Intensive Care Unit (ICU) with a myasthenic crisis complicated by recurrent AF. The management required a multimodal approach, combining both cardiology and neurology interventions. Pharmacological treatments used to manage the crisis - such as anticholinesterase agents, corticosteroids, and immunosuppressants - interacted with antiarrhythmic medications, creating a therapeutic dilemma. Managing recurrent rapid AF in this setting was particularly challenging due to the proarrhythmic effects of antiarrhythmic drugs and electrolyte imbalances resulting from MG. Medications like digoxin and beta-blockers, used to control AF, had to be carefully balanced with their potential to exacerbate myasthenic symptoms. Additionally, continuous monitoring in the ICU was needed to manage both acute respiratory failure due to MG and AF instability. This case highlights the difficulty of managing these two conditions simultaneously and emphasizes the lack of clear guidelines for such situations. It underscores the need for further research into optimized treatment protocols for patients experiencing both myasthenic crisis and cardiac arrhythmia.

Abbreviations: AF = atrial fibrillation, MG = myasthenia gravis, ICU = Intensive Care Unit

Keywords: *atrial fibrillation, myasthenia gravis*

ID 16

EPIDEMIOLOGY OF PAEDIATRIC CRITICAL CARE ADMISSIONS IN UNIVERSITI MALAYA MEDICAL CENTRE: A 7-YEAR-REVIEW

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INTRODUCTION

The Pediatric Intensive Care Unit (PICU) is vital for managing critically ill children. Understanding demographic profiles and admission trends aids in optimising resource allocation and care strategies.

OBJECTIVES

To evaluate demographic characteristics and analyse elective versus non-elective PICU admissions from 2018 to 2024.

METHODS

This retrospective study reviewed demographic data and admission patterns over seven years, comparing elective and non-elective cases.

RESULTS

A declining trend in annual admissions was observed, with children aged 1 month to 2 years remained the most vulnerable group, accounting for approximately 37-40% of total admissions. This underscored the persistent predominance of infants and young children in PICU admissions. There had been a consistent male preponderance, aligning with most patterns observed worldwide. The median length of stay was 2 days, with an overall mean survival rate of 93%. The median ventilator days was 2.4 days. There were significant differences between the elective and non-elective groups in terms of age, source and timing of admissions, and mortality. A higher proportion of non-elective admissions was comprised of neonates (26.1%) compared to elective ones (15.3%), reflecting the role of PICU in relieving NICU overcrowding. Non-elective admissions were significantly more prevalent during post-midnight hours (20.7%) in comparison to elective cases (7.0%), and were concomitantly associated with a higher mortality rate (8.3% vs. 3.0%).

CONCLUSION

Neonates and toddlers are the main age group in PICU admissions, highlighting the need for resources tailored to their needs. Non-elective admissions, especially post-midnight demonstrate a higher mortality rate and increased strain on existing resources. To improve outcomes, initiatives should be made to support post-midnight and unplanned admissions.

ID 17

FROM PHANTOM TO PATIENT: ENHANCING ICU LUNG ULTRASOUND SKILLS THROUGH SIMULATION

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OBJECTIVE

Lung ultrasound has become an essential bedside tool in the intensive care unit for rapid diagnosis of pulmonary pathology. However, training is often limited due to patient availability and safety concerns. Commercial ultrasound phantoms can be expensive, limiting access to this training. A realistic, low cost and reusable lung phantom allows clinicians to practice scanning techniques and procedures in a safe, controlled environment without the risk of harm to patients.

METHODS AND MATERIALS

The phantom is constructed using widely materials found in a typical supermarket - gelatin, psyllium husk that mimics soft tissue; wood sticks mimic ribs and lung made from a small balloon. Pneumothorax and pleural effusion simulated using air gaps and fluid reservoirs.

RESULTS

The phantom mimics lung ultrasound findings and is suited for POCUS and FAST protocols in ICU. The phantom can be used repeatedly and enables practical training in performing ultrasound-guided chest tube insertion.

CONCLUSION

This lung phantom is a reliable, low cost training tool for ICU settings. It allows for repetitive practice and improves clinicians' confidence in using lung ultrasound for bedside diagnosis and procedures.

ID 18

POINT PREVALANCE STUDY OF STRATEGIES TO PREVENT DEEP VEIN THROMBOSIS PROPHYLAXIS IN CRITICAL CARE PATIENTS IN A PRIVATE HOSPITAL

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OBJECTIVES

- To determine the prevalence and appropriateness of mechanical and pharmacological deep vein thrombosis (DVT) prophylaxis in adult critical care patients who are admitted to Subang Jaya Medical Centre.
- To evaluate compliance to national guideline-recommended DVT prophylaxis strategies.

METHODS

A point prevalence study was conducted in the critical care units of a tertiary private hospital to evaluate compliance to deep vein thrombosis (DVT) prophylaxis guidelines. All adult patients admitted to the intensive care units (ICUs) on the study day were included. Data collected included patient demographics, ICU type, DVT risk level (based on institutional risk assessment criteria - Padua Prediction Score (for medical patients) and the Risk Stratification for Surgical Patients, documentation of contraindications, type and timing of prophylaxis initiation, and classification of compliance as complete or incomplete. Compliance was assessed in relation to current clinical guidelines, and descriptive statistics were used to summarize findings.

RESULTS

A total of 24 critically ill patients were included in this point prevalence study, comprising both medical (n = 9) and surgical (n = 15) ICU admissions. The majority of patients (n = 21) were classified as high risk for venous thromboembolism (VTE), with the remaining three in the moderate-risk category.

Among high-risk patients, only 2 (9.5%) received both pharmacological and mechanical prophylaxis. 13 patients (61%) received mechanical prophylaxis alone, while 6 patients (28.5%) received no prophylaxis ; 5 had no contraindications and 1 had contraindication due to thrombocytopenia.

Contraindications to pharmacological prophylaxis were documented in 9 of the high-risk patients (42%), with traumatic brain injury (TBI) being the most common reason among surgical cases.

In the moderate-risk group (n = 3), mechanical prophylaxis were administered in 2 patients, while 1 patient did not receive any prophylaxis.

CONCLUSION

Most patients in this study received DVT prophylaxis. However, the adherence to current recommendations were inappropriate. A proportion of high-risk patients received no prophylaxis despite the absence of contraindications. These findings underscore the need for targeted interventions such as improved risk stratification, standardized protocols, timely and regular review in order to ensure adherence and reduce the risk of preventable thromboembolic events in the ICU setting.

ID 19

PERIOPERATIVE ANAESTHESIA RELATED DEATH

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BACKGROUND

In the United States, the estimated rates from anaesthesia-related were 1.1 per million population per year (1.45 for males and 0.77 for females) and 8.2 per million hospital surgical discharge (11.7 for men and 6.5 for women). The highest death rates were found in persons aged 85 year and older. In China 600 cases of anaesthetic deaths occurred from 2017 to 2021, yielding an incidence of 6.4 per 100,000 anaesthesia procedures and most were preventable (71.3%). Anaesthesia-related death was defined as death that deemed to be entirely or partially attributable to anaesthesia, occurring within 24 hours following anaesthesia administration.

We reviewed 13,082 cases of perioperative death in Malaysia from 2022-2023. Total of 4 death was related to anaesthesia, out if this 4, 3 deaths where anaesthesia was the main contributing factor, 1 death where both anaesthesia and surgery contributed to the death. 3 of these deaths were deemed preventable.

From 2022-2023, there were 869,989 administered in all MOH hospitals. This gives the ratio of around 1:200,000 anaesthetics.

CASE PRESENTATION

Case 1: Severe bronchospasm due to hyperreactive airway following COVID pneumonia.
Case 2: Dislodged ETT in ICU.
Case 3: Aspiration during induction of anaesthetic.
Case 4: Loss of airway during tracheostomy.

CONCLUSION

1. Continuing education for anaesthesiologists (regular drills/simulation)
2. Registration of undesired incidents through incident reporting (IR). (POMR only looking at death)
3. IR can be used to develop strategies/protocols for prevention and management
4. By following stringent protocol, having proper equipment and staying current with training and advancements in the field, we can significantly reduce risks and enhance patient outcomes
5. Still room of improvement for PORM reporting

ID 20

A RARE ESOPHAGO-PERICARDIAL FISTULA WITH PYOPERICARDIUM

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BACKGROUND
Esophageo-pericardial fistula is a very rare structural defect leading to high morbidity and mortality risk. We describe of case report of esophageo-pericardial fistula presenting with cardiac tamponade.

CASE PRESENTATION
A 40-year-old man with underlying genetic ovalocytosis and a history of pulmonary tuberculosis 10 years ago presented to Emergency Department with dyspnea, reduced effort tolerance, and cough. Upon arrival, he asystole but revived after 2 cycles of CPR. Echocardiography revealed a massive pericardial effusion hence pericardiocentesis was done, drained 370ml of seropurulent fluid. He developed unstable bradytachyarrythmia with worsening metabolic and lactic acidosis which he was intubated. Repeated ECHO noted significant reaccumulation of pericardial fluid within 24 hours. Pericardial drain was inserted using triple lumen CVL for drainage. Pericardial fluid was reported positive for Streptococcus parasanguinis and Candida parapsilosis in which he was treated with Benzylpenicillin and Micafungin. Suspicion on esophago-pericardial fistula when there is continous high volume milk-coloured fluid in pericardial drain. Further evaluation with CT contrast and oesophagogastroduodenoscopy revealed an esophagopericardial fistula at the anterior wall of distal esophagus. He was extubated well following clinical improvement with a course of antibiotics and antifungal. Definitive management with stent insertion was discussed. However while waiting for further plans, patient developed hospital-acquired pneumonia which led to his clinical deterioration.

CONCLUSION
Early definitive diagnosis and management is vital in reducing mortality and morbidity in this case whereby multidisciplinary involvement is crucial.

ID 21

NAVIGATING THE EDGE OF SURVIVAL: ECMO FOR SEVERE CARDIAC COMPROMISE IN CHILDREN

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BACKGROUND

Extracorporal Membrane Oxygenation (ECMO) is a life-saving intervention in paediatric patients with severe cardiac compromise, serving as a bridge to myocardial recovery in cardiac arrest or low cardiac output syndrome (LCOS) unresponsive to conventional therapy. This case series describe the indications, complications and outcomes of ECMO in three critical ill patients with differing cardiac condition.

CASE PRESENTATION

Case 1: A 9-years-old, boy with recurrent supraventricular tachycardia (SVT), arrested following verapamil administration requiring brief cardiopulmonary resuscitation (CPR). He was placed on ECMO for 9 days due to refractory SVT and cardiogenic shock. Complications include bleeding, acute kidney injury (AKI) requiring continuous renal replacement therapy (CRRT), ventilator associated pneumonia (VAP), recurrent seizures and inadequate left ventricular (LV) decompression necessitating LV vent insertion. He recovered fully with no neurological deficits.

Case 2: A term neonate, boy with obstructed Infracardiac Total Anomalous Pulmonary Venous Drainage (TAPVD). He underwent TAPVD repair and was initiated on ECMO intraoperatively for low cardiac output syndrome (LCOS). Course marked by multisite bleeding, circuit clotting and cardiac arrest upon emergency decannulation. She succumbed despite maximal resuscitation.

Case 3: A 1-year-old, girl, post Tetralogy of Fallot (TOF) repair developed cardiac arrest and required 1 hour CPR. ECMO commenced for LCOS with biventricular failure. Her course was complicated by AKI requiring CRRT, hypoxic ischaemic encephalopathy and VAP. Successfully weaned off ECMO after 6 days but discharged with neurological deficits undergoing neurorehabilitation.

CONCLUSION

ECMO can pivot the course from fatal cardiac failure to survival. However, it is associated with significant complications. Careful patient selection and expert multidisciplinary management are the key to optimize outcomes.

ID 22

ANTIBIOTIC PRESCRIBING IN THE INTENSIVE CARE UNIT OF A PRIVATE TERTIARY CARE HOSPITAL

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OBJECTIVE

To evaluate antibiotic prescribing pattern in intensive care unit (ICU), assess adherence to local and national guidelines, and identify areas for improvement in antimicrobial stewardship (AMS).

METHODS

A point prevalence survey (PPS) was conducted annually from 2023 to 2025 using a standardized methodology adapted from Pharmacy Practice and Development Division, Ministry of Health Malaysia, the Australian National Antimicrobial Prescribing Survey (NAPS) and World Health Organization (WHO) Global PPS to collect ICU-specific data encompassing adult and paediatric populations from four critical care units. Antibiotic prescriptions were evaluated for drug choice, indication, documentation, and prophylaxis practices, and assessed for compliance with institutional and national antimicrobial guidelines.

RESULTS

Among 80 ICU admissions surveyed, 49 (61.3%) patients received antibiotics, totalling 59 prescriptions. Notably, 18.4% of cases received more than 1 antibiotic concurrently. Broad-spectrum agents, specifically carbapenem - accounted for 15.3% of prescriptions. Indication was documented in 76% of prescriptions. Most antibiotics (44.1%) were started empirically; pneumonia was the most common indication (61.5%). Cultures were obtained in 82.6% of empirically treated cases. Compliance of empirical therapy with guidelines was observed in 61.5% of prescription. For surgical prophylaxis, 50% of antibiotics were given within the recommended 15–60 minutes before incision; however, 90% of prophylactic courses were continued beyond 24 hours, contrary to recommendations.

CONCLUSION

The survey found frequent empirical use of broad-spectrum antibiotics, incomplete documentation and prolonged use of surgical prophylaxis in critical care. These findings highlight the need to strengthen AMS strategies to address these gaps.

ID 24

OUTCOMES OF DIFFERENT CRRT DOSAGES IN SEPSIS-ASSOCIATED AKI: A SINGLE-CENTER EXPERIENCE

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BACKGROUND

Continuous renal replacement therapy (CRRT) is widely used in pediatric intensive care units (PICUs) for hemodynamically unstable children with acute kidney injury and other critical conditions. Although higher CRRT doses may enhance solute and cytokine clearance, the optimal dosing strategy, especially in sepsis-associated AKI remains unclear.

OBJECTIVE

To evaluate the outcomes of different CRRT dosing strategies in pediatric patients with sepsis-associated AKI, focusing on survival rates and biochemical markers—particularly serum phosphate levels - over a five-year period.

METHODS

We conducted a retrospective, single-center observational study of 44 pediatric patients who received CRRT from 2020 to 2024. Patients were stratified by CRRT effluent dose (ml/kg/hour) into two groups for the 2020-2022 cohort (60 - 80 vs. 80 - 120) and three groups for the 2023-2024 cohort (<60, 60 - 80, >80). Outcomes assessed included survival and percentage decline in serum phosphate at 24 and 48 hours post-CRRT initiation.

RESULTS

Among 44 patients, sepsis-AKI accounted for 68% of cases. From 2020-2022, high-dose CRRT (80 - 120ml/kg/hour) was associated with better survival (70% vs 20%), but with more pronounced phosphate losses. The 2023-2024 cohort showed contrasting outcomes with higher-dose (80 - 120ml/kg/hour) having lower survival 55.6% with most significant phosphate loss.

CONCLUSION

Higher-dose CRRT potentially increases the clearance but may not reflect in improved survival. Recent evidence supports the use of moderate-dose CRRT balancing blood purification with preservation of metabolites. This emphasizes the importance of precision-based CRRT strategies tailored to clinical condition, with attention to metabolic monitoring and supportive care.

ID 25

GUIDED BY CLOT: ROTEM AS THE COMPASS IN THE STORM OF DENGUE-ASSOCIATED HAEMORRHAGE - A CRITICAL CARE PERSPECTIVE

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INTRODUCTION

Haemorrhagic complications in severe dengue pose significant management challenges, especially in elderly patients with comorbidities. This case illustrates the role of rotational thromboelastometry (ROTEM) in rapidly guiding transfusion strategy in an elderly man with dengue-associated coagulopathy and life-threatening bleeding.

CASE PRESENTATION

An 87-year-old man with hypertension and dyslipidaemia presented with lethargy, vomiting, and poor oral intake. Dengue NS1 was positive. He developed multiorgan involvement including transaminitis, acute kidney injury, and severe thrombocytopenia. His condition deteriorated rapidly with rising lactate, atrial fibrillation, and signs of internal bleeding.

Despite empiric transfusions, bleeding persisted. ROTEM revealed prolonged clotting time and markedly reduced clot firmness, consistent with ongoing consumptive coagulopathy and impaired clot strength. Based on ROTEM, targeted transfusions were initiated, including platelet concentrates and cryoprecipitate. Serial ROTEMs guided ongoing management.

CT angiography confirmed active intramuscular bleeds from the right inferior epigastric and then later left iliacus arteries, with evolving hematomas, and worsening hemoperitoneum. Embolisation was not feasible. Despite aggressive transfusion guided by ROTEM, the patient's condition progressed to multiorgan failure. He passed away on day 9 of ICU admission.

CONCLUSION

Despite the poor patient outcome, this case highlights the value of ROTEM in prompt targeted transfusion and prevented unnecessary component use. Traditionally used in surgical settings, ROTEM is now gaining traction in critical care for real-time assessment of coagulopathy. Although conventional tests reflected coagulopathy, ROTEM allowed for earlier identification of specific haemostatic deficits, supporting more focused transfusion therapy. As bleeding management evolves, early integration of ROTEM into ICU protocols may enhance decision-making and improve outcomes especially in complex, high-risk patients with dengue-associated haemorrhage.

ID 27

WHO SPEAKS FOR THE SILENT? ETHICS AND LAWS OF CONSENT IN INCOMPETENT, UNREPRESENTED ICU PATIENTS IN MALAYSIA

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INTRODUCTION

In Malaysian Intensive Care Units (ICUs), managing incapacitated and unrepresented foreign nationals poses complex ethical and legal challenges, particularly when non-emergent procedures like tracheostomy are indicated.

CASE PRESENTATION

This report presents two anonymised cases: one involving a documented migrant worker with traumatic brain injury, and another an undocumented patient with sepsis and neurological decline. In both, attempts to obtain next of kin consent were unsuccessful. In the first case, tracheostomy proceeded following multidisciplinary consensus and employer input. In the second, the ethics committee was consulted and consensus was reached to proceed, but the patient deteriorated before the intervention could be carried out.

DISCUSSION AND CONCLUSION

These cases raise important questions regarding surrogate decision making, the threshold of best interest in the absence of consent, and the limitations of existing legal mechanisms in nonemergency contexts. Ethical principles such as autonomy, beneficence, nonmaleficence, and justice guide clinical judgement, but their application becomes significantly more complex when patients are unable to participate and have no legal representative. Malaysia lacks statutory instruments comparable to the United Kingdom's Mental Capacity Act, and current reliance on hospital policies and clinical discretion exposes providers to legal and moral uncertainty. The doctrine of necessity offers protection only in life threatening emergencies and is insufficient in guiding semi-elective decisions.

This paper argues for a structured legal and ethical framework, including legislative reform and the establishment of independent surrogate pathways. Institutional ethics committees and multidisciplinary engagement remain critical to supporting decisions that are ethically justified, legally sound, and anchored in patient-centred care.

ID 28

BEYOND THE LUNGS: PEDIATRIC HMPV INFECTION WITH LIMB ISCHEMIA AND MULTIORGAN DYSFUNCTION - A CASE SERIES

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BACKGROUND

Human metapneumovirus (HMPV) is a known etiological agent of paediatric lower respiratory tract infections, but rarely results in severe systemic complications such as paediatric acute respiratory distress syndrome (PARDS), septic shock, multiorgan dysfunction, and critical limb ischemia.

CASE PRESENTATION

We managed two paediatric patients who presented with fulminant HMPV infection requiring invasive mechanical ventilation and high-dose vasoactive support.

Patient 1 – A 1-year-11-month-old previously healthy girl presented with respiratory distress and circulatory shock secondary to severe HMPV infection. She required advanced invasive mechanical ventilation and multiple inotropes. She subsequently developed multiorgan dysfunction including disseminated intravascular coagulation (DIVC), complicated by symmetrical limb ischemia affecting all four extremities. Anticoagulation was not initiated due to active bleeding and DIVC. Despite intensive supportive measures, she progressed to dry gangrene necessitating staged amputations and prolonged multidisciplinary rehabilitation.

Patient 2 – A 12-year-old girl with stage II osteosarcoma undergoing chemotherapy presented with HMPV infection and concurrent Escherichia coli septic shock. She developed PARDS, multiorgan dysfunction, DIVC, and distal digital gangrene involving all fingers and toes. She survived and remains under follow-up, currently awaiting spontaneous auto-amputation with ongoing intensive rehabilitation.

In both patients, early multidisciplinary management, strict hemodynamic optimisation, and comprehensive organ-supportive therapies were pivotal; severe circulatory instability and microvascular dysfunction ultimately led to irreversible limb ischemia.

CONCLUSION

These cases highlight the rare but severe systemic complications of HMPV infection extending beyond the respiratory tract. Early recognition, intensive supportive management, and timely rehabilitation planning are vital to improve survival and long-term functional outcomes. Multidisciplinary collaboration played a key role in the care of these critically ill children.

ID 29

HIGH-DOSE CEFOPERAZONE/SULBACTAM IN THE TREATMENT OF ACINETOBACTER INFECTIONS AND THE RISK OF COAGULOPATHY AMONG CRITICALLY ILL PATIENTS: A RETROSPECTIVE STUDY

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BACKGROUND

Managing *Acinetobacter baumannii* infections in critically ill patients poses a major therapeutic challenge, especially with the increasing prevalence of multidrug-resistant strains. Cefoperazone/sulbactam is used to treat the infections in many countries, but its optimal dose remains uncertain. Concerns about potential coagulopathy have limited its use and further narrowed treatment options.

OBJECTIVE

To evaluate the effectiveness and coagulopathy risk of high-dose cefoperazone/sulbactam in treating Acinetobacter infections in critically ill patients.

METHODS

A retrospective study was conducted on ICU patients aged ≥18 years who were admitted to Hospital Tengku Ampuan Rahimah Klang between January 2023 and April 2024. Patients with Acinetobacter isolated who received high-dose cefoperazone/sulbactam for ≥3 days were included.

RESULTS

A total of 47 patients were analysed for coagulopathy risk and 43 patients were assessed for clinical effectiveness after excluding four unrelated deaths. The majority of patients (87.2%) were treated for lung infections, and 87.2% of the isolates were multidrug-resistant. Clinical cure was achieved in 81.4% of patients. Among 24 patients with repeated cultures, a microbiological eradication rate of 62.5% was observed. Coagulopathy was seen in 57.4% of cases; however, no clinically significant bleeding events were reported. Patients receiving prolonged therapy (>7 days) with concurrent hypoalbuminemia (<25 g/L) had a higher risk of developing coagulopathy (OR 4.454; 95% CI 1.186-16.730; p=0.027).

CONCLUSION

High-dose cefoperazone/sulbactam may be a viable treatment option for Acinetobacter infections in critically ill patients. Although coagulation abnormalities were common, they did not result in significant bleeding. Prolonged therapy in the presence of hypoalbuminemia may increase coagulopathy risk.

ID 30

SILENT STENOSIS: A CASE REPORT ON AN OBSTETRIC PATIENT WITH CONGENITAL TRACHEAL NARROWING WHO PRESENTED WITH BLEEDING PLACENTA PREVIA

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BACKGROUND

Airway management in obese obstetric patients presents significant challenges, further complicated by undiagnosed tracheal stenosis. Postoperative Intensive Care Unit (ICU) management is critical to address complications such as airway obstruction, respiratory failure, and tracheostomy-related issues. Multidisciplinary collaborations are essential for optimizing patient outcomes.

CASE PRESENTATION

A 38-year-old morbidly obese woman at term with placenta accreta presented with antepartum hemorrhage requiring emergency cesarean section. Rapid sequence induction was performed with the patient positioned on a Troop pillow. Despite a full glottic view on first attempt using a CMAC Blade 3, a 7.5 endotracheal tube (ETT) could not be advanced past the vocal cords. Multiple attempts with smaller ETTs were required before successful intubation with a 6.0 flexometallic tube.

Postoperatively, the patient was admitted to ICU. A detailed history revealed childhood noisy breathing with a diagnosis of tracheal narrowing but no follow-up. CT imaging showed proximal tracheal stenosis with a minimal lumen diameter of 4.7 mm at T1. Bronchoscopy identified a 1.5 cm stenosis 2.6 cm below the vocal cords. Due to critical airway compromise, an open tracheostomy with a 5.0 cuffed tube was performed.

Her ICU course was complicated by tracheostomy tube blockage causing hypoxic cardiac arrest, pneumothorax, subcutaneous emphysema, pulmonary embolism, and hospital-acquired pneumonia. Multiple tracheostomy tube changes were necessary, and the tube was eventually upsized to 6.5 for improved patency.

Early tailored rehabilitation incorporating physical, cognitive, and functional therapies was initiated in ICU, aiding recovery. The patient was transferred to a respiratory centre for further airway interventions, including direct laryngoscopy, steroid injections, granulation tissue removal, balloon dilatation, and ongoing tracheostomy management. She is currently well and at home.

CONCLUSION

This case highlights the complexity of airway management in obstetric patients with undiagnosed tracheal pathology and the importance of multidisciplinary ICU care.

ID 31

FATAL MESENTERIC ISCHEMIA IN SEVERE DENGUE: A RARE BUT LETHAL COMPLICATION

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BACKGROUND

Mesenteric ischemia is a rare but potentially fatal complication of dengue, particularly under-recognized during the critical phase. Persistent shock despite adequate resuscitation should prompt a broader diagnostic approach beyond plasma leakage and hemorrhage.

CASE PRESENTATION

A 68-year-old male with confirmed dengue (NS1-positive) entered the critical phase on day four, presenting with lethargy and mild abdominal discomfort. He rapidly progressed to decompensated shock with escalating lactate (>11 mmol/L), severe metabolic acidosis, and anuria. ICU admission was initiated with vasopressor support, mechanical ventilation, and CRRT. Despite aggressive measures, hemodynamics remained poor. His $ScvO_2$ was normal, arguing against global hypoperfusion, while abdominal signs remained subtle and progressed late. Lactate elevation was thus physiologically disproportionate. An OGDS was performed due to persistently low hemoglobin and ruled out GI bleeding. In view of unexplained clinical deterioration, CTA mesenteric angiography was subsequently performed which revealed extensive portosplenomesenteric venous thrombosis with coeliac and mesenteric arterial narrowing, consistent with mixed mesenteric ischemia. Ongoing coagulopathy and hemodynamic instability precluded both anticoagulation and surgical options. The patient succumbed to multi-organ failure.

CONCLUSION

This case highlights mesenteric ischemia as a devastating but underdiagnosed complication of severe dengue. Limited evidence exists on dengue-associated mesenteric thrombosis, though microvascular endothelial injury and hypercoagulability are implicated. In cases of persistent shock with unexplained hyperlactatemia and normal $ScvO_2$, clinicians should maintain high suspicion. Early use of portal venous Doppler, development of ICU algorithms may improve timely diagnosis and may offer a narrow therapeutic window, potentially altering outcomes in this otherwise fatal trajectory.

Keywords

Dengue Shock Syndrome, Mesenteric Thrombosis Ischemia, Hyperlactatemia, CTA Abdomen

ID 32

INTRAPLEURAL FIBRINOLYTICS THERAPY IN CRITICALLY ILL AND INTUBATED PATIENTS WITH COMPLEX PARAPNEUMONIC PLEURAL EFFUSIONS: A CASE SERIES

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Intrapleural fibrinolytic therapy (IPFT) has been recommended in patients with complex parapneumonic pleural effusion (CPPE) who have failed conventional therapy and/or are not fit for surgical intervention. The efficacy and safety profile have been demonstrated in multiple studies including MIST2 Trial, but the evidence among critically ill, intubated patients remains limited. We describe a case series of three critically ill, intubated patients with CPPE who were treated with IPFT.

CASE 1

A 53-year-old gentleman admitted to intensive care unit (ICU) for multilevel cervical spine fractures. He developed nosocomial pneumonia and complicated with left loculated CPPE. Intrapleural alteplase and dornase were administered for three doses. Subsequent imaging showed resolution of lung consolidation and loculated effusion.

CASE 2

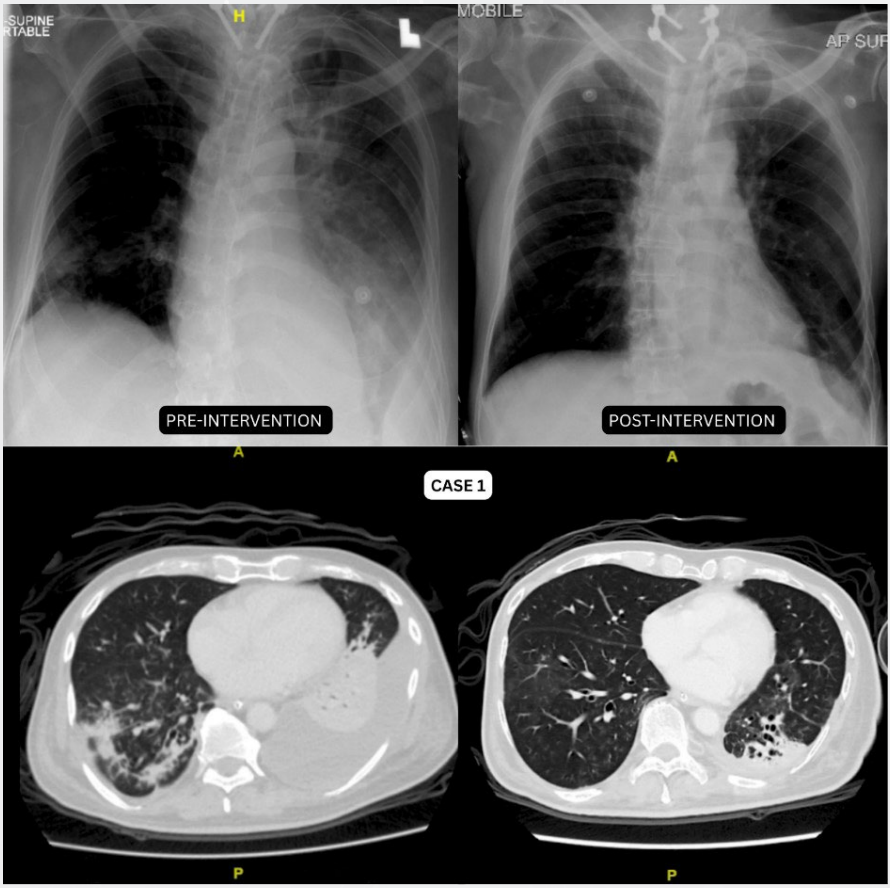
A 29-year-old male has been intubated for septic shock secondary to right lobar pneumonia. Imaging demonstrated right lung empyema and middle lobe abscess. Right pleural drainage was performed, followed by IPFT with three doses of intrapleural alteplase and dornase. The patient was then successfully extubated and resolution of effusion was observed on ultrasound imaging.

CASE 3

A 36-year-old male admitted to ICU for traumatic cervical spine fracture and spinal cord injury. His clinical course was complicated with necrotising pneumonia and CPPE. Only one dose of intrapleural alteplase and dornase was given for the left-sided CPPE as it was complicated with bleeding. Despite recurrent effusion requiring drainage, progressive radiologic improvement was observed with reducing ventilation support.

CONCLUSION

IPFT should be considered for CPPE in critically ill and intubated patient to avoid high risk surgical intervention.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ID 33

INFLATABLE BABY CHAIR - A LOW-COST STRATEGY TO ENCOURAGE EARLY MOBILIZATION IN PICU!

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INTRODUCTION

PICU HSAJB cares for approximately 500 admissions annually. Historically, our conventional PICU approach prioritized sedation, immobility, and physical restraint - often keeping children supine throughout their stay for what was deemed “safe.” However, over the past decade, pediatric intensive care units globally have embraced the benefits of early mobilization. Research demonstrates that initiating safe movement as soon as feasible in critically ill children leads to shorter length of stay, fewer pressure injuries, and reduced incidence and severity of delirium. We introduced a low cost, easy to implement intervention to encourage early mobility in the PICU using a readily available inflatable baby chair!

OBJECTIVE

To evaluate the feasibility, safety and clinical impact of initiating sitting up in inflatable baby chairs in children in PICU who are not able to sit up on their own yet.

RESULTS

In the cohort of 53 patients mobilized using inflatable baby chairs over 18 months, no adverse effects or safety-related incidents were observed.

CONCLUSION

Inflatable baby chair is a low cost, easy-to-implement intervention to encourage early mobility in PICU.

ID 34

SCRUB TYPHUS, THE NEGLECTED CAUSE OF UNDIFFERENTIATED ACUTE FEBRILE ILLNESS IN CRITICAL CARE: A CASE REPORT

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BACKGROUND

Scrub typhus, one of the tropical rickettsial illnesses caused by *Orientia Tsutsugamushi*, can lead to life-threatening multiorgan failure. Although rickettsioses are notifiable diseases, they remain underappreciated as a cause of acute febrile illness.

CASE PRESENTATION

A previously healthy 36-year-old Felda worker presented to Klinik Kesihatan Gambang with 4-day history of fever, associated with chills, rigors, vomiting, myalgia, and epigastric pain. Blood investigations showed total white cell counts of 3.8x 10^9/L, hemoglobin of 14.9g/dL, hematocrit of 44%, platelet count of 101x10^9/L, and positive Dengue IgM. He was managed as dengue fever with daily Full Blood Count monitoring.

On day 9 of illness, he was referred to Hospital Tengku Ampuan Afzan (HTAA) for prolonged fever and thrombocytopenia. An eschar was noted at his right upper chest region. He was intubated for worsening respiratory distress and admitted to Intensive Care Unit. He was treated as presumed leptospirosis to rule out rickettsioses and malaria, complicated with acute respiratory, kidney, and liver failure. Intravenous Rocephine, Azithromycin, and oral Doxycycline were initiated. Further work-up revealed positive Leptospira IgM but negative MAT, no malarial parasites were detected, and negative blood culture. He was extubated well after 7 days of intensive care and discharged home after 14 days of hospitalization.

After 4 weeks of sampling, *Orientia Tsutsugamushi* DNA was detected in serum Rickettsia PCR, confirming a diagnosis of scrub typhus.

CONCLUSION

Recognition of rickettsioses is challenging due to their nonspecific clinical patterns. This case highlights the need to increase knowledge and awareness among clinicians regarding rickettsioses to improve disease detection. Early disease recognition and timely treatment initiation promote favourable outcomes.

ID 35

CONTINUOUS RENAL REPLACEMENT THERAPY IN THE PICU: A SIX-YEAR RETROSPECTIVE REVIEW OF CLINICAL PRACTICE AND PATIENT OUTCOMES

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OBJECTIVES

To evaluate the utilization trends of continuous renal replacement therapy (CRRT) and the outcome in a paediatric intensive care unit (PICU) over six years.

METHODS

A retrospective review of paediatric patients who received CRRT in the PICU at University Malaya Medical Centre from 2019 to 2025.

RESULTS

A total of 51 patients received CRRT. The youngest was 2 days old and the smallest weighed 2.7 kg. The median age was 30 month (IQR 8-120) and median weight was 13 kg (IQR 7-25); 60.8% were male. Primary indications were acute kidney injury (56.9%) and acute liver failure (33.3%). 6% were done heparin free due to bleeding risk. Internal jugular vein (56.9%) is the preferred access.

The median CRRT duration was 3 days (IQR:2-10). Median filter lifespan was 38 hours (IQR:24-72). A statistically significant moderate positive correlation (Spearman's rho = 0.422, p = 0.002) was observed between filter span and higher blood flow rate.

The overall PICU mortality rate was 66.7%. Median PICU stay was 14 days (IQR:6-30);. Patients aged below 36 months exhibited significantly higher mortality (80%). The odds of mortality in this group were 3.83 times greater than in patients older than 36 months (OR = 3.83, p = 0.032).

CONCLUSION

Mortality was notably high among paediatric patients requiring CRRT in the PICU, with those under 3 years of age experiencing disproportionately greater risk. Additionally, longer filter lifespan was moderately associated with higher blood flow rate.

ID 36

FATAL MESENTERIC ISCHEMIA IN SEVERE DENGUE: A RARE BUT LETHAL COMPLICATION

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BACKGROUND

Mesenteric ischemia is a rare but potentially fatal complication of dengue, particularly under-recognized during the critical phase. Persistent shock despite adequate resuscitation should prompt a broader diagnostic approach beyond plasma leakage and hemorrhage.

CASE PRESENTATION

A 68-year-old male with confirmed dengue (NS1-positive) entered the critical phase on day four, presenting with lethargy and mild abdominal discomfort. He rapidly progressed to decompensated shock with escalating lactate (>11 mmol/L), severe metabolic acidosis, and anuria. ICU admission was initiated with vasopressor support, mechanical ventilation, and CRRT. Despite aggressive measures, hemodynamics remained poor. His $ScvO_2$ was normal, arguing against global hypoperfusion, while abdominal signs remained subtle and progressed late. Lactate elevation was thus physiologically disproportionate. An OGDS was performed due to persistently low hemoglobin and ruled out GI bleeding. In view of unexplained clinical deterioration, CTA mesenteric angiography was subsequently performed which revealed extensive portosplenomesenteric venous thrombosis with coeliac and mesenteric arterial narrowing, consistent with mixed mesenteric ischemia. Ongoing coagulopathy and hemodynamic instability precluded both anticoagulation and surgical options. The patient succumbed to multi-organ failure.

CONCLUSION

This case highlights mesenteric ischemia as a devastating but underdiagnosed complication of severe dengue. Limited evidence exists on dengue-associated mesenteric thrombosis, though microvascular endothelial injury and hypercoagulability are implicated. In cases of persistent shock with unexplained hyperlactatemia and normal $ScvO_2$, clinicians should maintain high suspicion. Early use of portal venous Doppler, development of ICU algorithms may improve timely diagnosis and may offer a narrow therapeutic window, potentially altering outcomes in this otherwise fatal trajectory.

Keywords

Dengue Shock Syndrome, Mesenteric Thrombosis Ischemia, Hyperlactatemia, CTA Abdomen

ID 37

BREAKING THE BRASH CYCLE: TEMPORARY PACING AND EARLY RENAL REPLACEMENT THERAPY

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BACKGROUND

BRASH syndrome - marked by **B**radydysrhythmia, **R**enal failure, **A**V-nodal blocker use, **S**hock, and **H**yperkalemia - is an underrecognized, potentially catastrophic condition. We present a case of BRASH Syndrome precipitated by DKA induced hypovolemia, which impaired renal perfusion and reduced glomerular filtration. A volume depleting insult triggers acute kidney injury, exacerbating hyperkalemia and potentiating the effects of AV nodal blockers. The ensuing bradycardia further diminishes renal blood flow, creating a positive feedback loop. Acute kidney injury, bradycardia, hypoperfusion, and drug accumulation act synergistically to precipitate shock and metabolic derangement, necessitating prompt recognition and targeted intervention.

CASE PRESENTATION

A 57 year old woman with hypertension, type 2 diabetes, and hyperlipidemia (on metoprolol 200 mg BD and amlodipine 10 mg OD) was brought to the ED after a witnessed loss of consciousness. She had been lethargic with abdominal pain. On arrival: GCS E1V1M1; BP 50/32 mmHg; HR 21 bpm; SpO_2 60% necessitating intubation. Three doses of IV atropine (1 mg each) had failed to treat the bradycardia, hence adrenaline infusion and transcutaneous pacing (140 mA) achieving capture at 60-70 bpm were performed. Laboratory results showed severe lactic acidosis (pH 7.142; HCO_3- 6.7 mmol/L; lactate 13 mmol/L), DKA (glucose 16 mmol/L; ketones 4.2 mmol/L), AKI (urea 21.9 mmol/L; creatinine 606 µmol/L), and hyperkalemia (K^+ 6.0 mmol/L). She received fluid resuscitation, lytic cocktail, fixed rate insulin infusion, and empirical antibiotic. In ICU, with the support of noradrenaline, adrenaline and transcutaneous pacing, she underwent immediate CVVHDF for severe lactic acidosis and refractory hyperkalemia. Within 24 hours, metabolic parameters normalized, allowing weaning of pacing and inotropes; she was successfully extubated.

CONCLUSION

This case highlights the importance of recognizing the BRASH feedback loop initiated by volume depletion. Early disruption - through aggressive resuscitation, temporary pacing, chronotropic support, and timely renal replacement therapy - can break this cycle and rapidly restore hemodynamic stability.

ID 42

PREGNANCY'S VEIL: OBSCURING THE DIAGNOSIS OF CRYPTOGENIC ORGANIZING PNEUMONIA

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BACKGROUND

Organizing pneumonia (OP) occurs infrequently, with an estimated incidence of 0.001% to 0.007%. This report highlights a case of organizing pneumonia during pregnancy that resulted in a tragic outcome, despite administration of high-dose corticosteroid therapy.

CASE PRESENTATION

A 43-year-old woman at 33 weeks of gestation, with a history of poorly controlled bronchial asthma and an active smoking habit, presented with respiratory symptoms. Within a couple of days of being admitted, she needed invasive mechanical ventilation. Despite receiving antibiotics, her condition did not improve. Numerous investigations were conducted, including cultures and tests for viral infections like influenza and COVID-19, but all results came back negative. Given the consistently high ventilator settings and acute respiratory distress, along with hemodynamic instability, an emergency lower segment cesarean section (EMLSCS) was carried out at 33 weeks and 5 days of gestation. Seven hours post-EMLSCS, she had to undergo a relaparotomy and hematoma evacuation because of a considerable drop in hemoglobin and hemodynamic instability. After this operation, while inotropic support was successfully reduced, the high ventilator settings persisted as a major concern. Initially, pulmonary embolism was suspected due to an elevated D-dimer level, which prompted a computed tomography pulmonary angiogram (CTPA); however, the scan revealed OP. Owing to her poor oxygen saturation levels, the patient was positioned prone, although she could only manage this for six hours. Intravenous Methylprednisolone 500 mg was administered. However, clinical improvement was limited. Tragically, her condition continued to deteriorate, and she eventually passed away.

CONCLUSION

Organizing pneumonia during pregnancy is an exceptionally rare occurrence, with no recorded instances in Malaysia.

ID 43

PARADOXICAL RISE IN PARASITAEMIA AND SATURATION GAP IN SEVERE *PLASMODIUM KNOWLESI* INFECTION

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BACKGROUND

A "saturation gap" - low SpO_2 despite high PaO_2 - may indicate methemoglobinemia, a rare oxidative complication of malaria. In *Plasmodium knowlesi*, severe hyperparasitemia causes haemolysis and functional hemoglobin impairment, worsening tissue hypoxia. Despite artesunate, parasitemia may transiently rise due to synchronized schizont rupture and rapid 24-hour replication. We present a case highlighting:

1. Saturation gap as a clinical clue to methemoglobinemia
2. Paradoxical parasitemia rise post-artesunate
3. Packed cell transfusion's role in reversing hypoxia and anemia

CASE PRESENTATION

A 51 year old man from rural Borneo presented with a five day history of fever, vomiting, jaundice, and dyspnoea. His SpO_2 was 60% on high flow oxygen via a 15 L/min mask, necessitating intubation. An initial peripheral smear revealed *P.knowlesi* parasitaemia of 120 000/mm^3, and IV artesunate and oral doxycycline was started. In the ICU, SpO_2 dropped further to 30% despite a PaO_2 of 400 mmHg and an ABG derived SaO_2 of 55%, yielding a saturation gap of 25%. IV methylene blue (1.5 mg/kg) was given, however no improvement in SpO_2 was seen. Raised LDH level (2812u/L), dropping Hb (15 - 10 g/dL) and reticulocytosis (36.4%) indicated haemolysis, thus two units of packed red blood cells were transfused. Post transfusion, saturation gap improved (SpO_2 91%, saturation gap of 5%). On day 2 of ICU admission, parasitaemia paradoxically increased to 168 533/mm^3 despite two doses of artesunate; counts fell to 25 000/mm^3 on day 3 and were undetectable by day 7. He was successfully extubated on day 10 of admission.

CONCLUSION

In severe *P.knowlesi* malaria with persistent hyperparasitemia - induced haemolysis and saturation gap, early suspicion of methemoglobinemia and timely packed cell transfusion alongside antimalarials can reverse hypoxia and improve outcomes.

ID 44

MITOCHONDRIAL CARDIOMYOPATHY UNMASKED BY BEDSIDE ECHOCARDIOGRAPHY: A CASE OF HEART FAILURE PRESERVED EJECTION FRACTION IN CHILDREN

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BACKGROUND

Mitochondrial diseases are a diverse group of genetic disorders that impair mitochondrial function, affecting multiple organ systems. Their varied clinical presentations pose a significant diagnostic challenge, particularly in cases of isolated diastolic dysfunction in mitochondrial cardiomyopathy with preserved ejection fraction (HFpEF).

CASE PRESENTATION

This abstract presents the case of a 21-month-old girl diagnosed with mitochondrial complex 1 deficiency due to an MT-ND3 gene variant (MT-10158-T-C) and infantile spams. She presented with two weeks of worsening respiratory distress, stridor, persistent tachycardia and hypertension (above 99th centile). Despite a normal heart size on chest radiograph and no acute pulmonary oedema, the initial bedside echocardiography revealed a dilated left ventricle (LV) with ejection fraction of 60% and reversal of E/A mitral valve inflow (ratio 0.9), indicative of impaired left ventricular relaxation and elevated left ventricular filling pressures, consistent with a high NT-proBNP of 1507ng/mL(>400ng/mL). There was no significant ventricular hypertrophy or non-compaction. The patient received prompt intubation, milrinone, diuretics, and antihypertensive therapy, with subsequent echocardiograms showing improved LV relaxation.

CONCLUSION

This case highlights the critical role of bedside echocardiography as an invaluable screening tool in paediatric intensive care, especially for patients at risk of developing HFpEF. Early detection of isolated diastolic via point-of-care imaging facilitates prompt intervention, potentially preventing cardiac decompensation in this vulnerable population.

ID 45

THROMBOTIC MICROANGIOPATHY IN NEONATES WITH ECHOVIRUS 11 INFECTION: CLINICAL INSIGHTS FROM TWO PICU CASES

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BACKGROUND

This study reviews the clinical presentations and management strategies of thrombotic microangiopathy (TMA) in neonates with Echovirus 11 infection admitted to the Paediatric Intensive Care Unit at Universiti Malaya Medical Centre.

CASE PRESENTATION

Infant A was a female born at term, presented at day 2 of life, and infant B was a male born preterm at 34 weeks + 6 days, presented at day 10 of life. It was observed that the two patients exhibited a comparable presentation, characterized by hepatic dysfunction and thrombocytopenia, without significant bleeding, despite the presence of coagulation dysfunction. The management of the two patients differed, as the infant A was treated more conservatively, with the aim of addressing the secondary ADAMTS13 deficiency. Infant B was treated in a more aggressive manner, involving the administration of steroids and the performance of two exchange transfusions. In the case of infant A, 15 days of FFP derivatives were required to raise platelet counts to over 150 x 10^9/L by day 17. However, in the case of infant B, only 4 days of FFP derivatives were necessary following an exchange transfusion, resulting in platelet counts exceeding 150 x 10^9/L.

CONCLUSION

It has been established that TMA (thrombotic thrombocytopenic purpura) secondary to Echovirus 11 is associated with ADAMTS13 deficiency, consequent to excessive consumption in conjunction with microvascular thrombosis. It is postulated that the performance of exchanging transfusions to remove complement, cytokines, and ultra large von Willebrand factors, or autoantibodies if present, has the potential to shorten the natural history of the TMA secondary to Echovirus 11.

ID 47

EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO) FOR SEVERE RESPIRATORY FAILURE. A CASE SERIES FROM HOSPITAL PULAU PINANG (HPP)

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BACKGROUND

Extracorporeal Membrane Oxygenation (ECMO) has emerged as a vital rescue therapy for patients with severe respiratory failure who do not respond to conventional mechanical ventilation and who meet criteria suggesting a favorable prognosis post-ECMO. The timing of ECMO initiation and the risk of complications following the procedure are critical factors that influence patient outcomes. This case series from Hospital Pulau Pinang (HPP) details the experiences of six patients treated with ECMO, emphasizing both the life-saving potential of the intervention and the challenges posed by complications.

CASE PRESENTATION

Six patients who met ECMO inclusion criteria (adapted from The Alfred, Melbourne) were included in this review. The mean age was 37 years. Diagnoses fell into favorable outcome categories: one patient had ARDS secondary to leptospirosis, three had acute hypoxemic respiratory failure due to severe community-acquired pneumonia, and two presented with life-threatening bronchial asthma. The mean SOFA score across patients was 7.16. Four patients received veno-venous (VV) ECMO for severe respiratory failure, while two required veno-arterial (VA) ECMO due to concurrent circulatory collapse. The mean duration for both VV and VA ECMO support was 6.7 days, and the average ICU stay was 22.5 days.

All but one patient showed significant improvement in respiratory parameters while on ECMO, with PaO_2/FiO_2 ratios increasing from less than 100 to over 250, alongside decreased reliance on ventilatory support. Both patients with isolated single organ failure and early ECMO initiation (within 2 days) survived to hospital discharge. Three patients died after decannulation, primarily due to nosocomial sepsis; these cases involved multiorgan failure and delayed ECMO initiation (8 days). One patient died as a result of complications related to ECMO cannulation.

CONCLUSION

ECMO provided effective stabilization for severe respiratory failure but could not prevent deaths related to nosocomial sepsis and multiorgan failure. The best outcomes were seen in patients with isolated respiratory failure who received early ECMO intervention (within 1-3 days). This case series underscores the pivotal importance of meticulous patient selection, timely initiation of ECMO, and robust infection prevention strategies post-ECMO to optimize patient outcomes.

ID 48

FROM SEPTIC SHOCK TO AMLODIPINE TOXICITY: A CASE OF CALCIUM CHANNEL BLOCKER TOXICITY

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BACKGROUND

The presentation of refractory shock negates careful assessment to identify the causative etiology. Calcium channel blocker (CCB) toxicity leads to cardiac toxicity, neurological impairment and metabolic disturbances that requires prompt intervention.

CASE PRESENTATION

A healthy 17-year-old male presented with gastrointestinal symptoms and fever. He had an alleged history of paracetamol ingestion due to pain. His initial blood pressure was 74/45 mmHg, heart rate 102 beats per minute and was alert, conscious and not tachypnoiec. Despite boluses of fluid and initiation of vasopressors, he remained profoundly hypotensive. He was admitted to the intensive care unit and commenced on 3 vasopressors via a central venous line. The clinical assessment, blood parameters and investigations including infective parameters and salicylate levels were unremarkable.

Further history from his father elicited a possible ingestion of Amlodipine. He was initiated on high dose euglycaemic insulin therapy (HIT), alongside calcium infusion to counteract the excessive negative inotropy, chronotropy and dromotropy. The HIT therapy required concurrent high volumes of dextrose.

The patient's vasopressor support gradually reduced. However, he had an insidious onset of pulmonary edema attributed to the negative chronotropy effects of the CCB toxicity and high volume of intravenous fluids. He was carefully managed with non-invasive ventilation and discharged well within a week of admission.

CONCLUSION

Clinicians must have a high index of suspicion of CCB toxicity in presentations of refractory shock to improve survival. The initiation of HIT therapy as the first line therapy with calcium and vasopressors cannot be delayed. CCB toxicity can be safely managed without overt complications necessitating ECMO if targeted treatment is initiated immediately.

ID 51

METHYLENE BLUE FOR REFRACTORY METFORMIN INDUCED LACTATE ACIDOSIS (MALA): A NON-TERTIARY CENTRE EXPERIENCE

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BACKGROUND

The presentation of refractory shock negates careful assessment to identify the causative etiology. In metformin induced lactic acidosis (MALA), the role of Methylene blue has not been extensively studied. Methylene blue acts by blocking cyclic guanylate cyclase that eventually reduces the profound vasodilatory effects in MALA.

CASE PRESENTATION

An elderly woman with underlying diabetes on Metformin presented with gastrointestinal symptoms and loss of consciousness. She was intubated for airway protection and initial assessment showed severe high anion gap metabolic acidosis (HAGMA) with pH 6.8, single digit bicarbonate and hyperlactemia. Diabetic ketoacidosis was excluded and patient required triple vasopressor support. Her clinical assessment excluded underlying infection. She had mild renal and liver impairment and a CT abdomen excluded bowel ischaemia.

In the intensive care unit, urgent continuous veno-venous hemodiafiltration was initiated. She had gradual recovery of metabolic acidosis but lactate levels remained high despite maintaining a euvolemic status. We highly suspected MALA after excluding possible causes of hyperlactemia.

Thus, a trial of Methylene blue at 2mg/kg was given and she appeared to have a dramatic clinical improvement and her catecholamine requirement decreased. Subsequently, her lactate levels normalized and she was extubated well.

CONCLUSION

In severe lactic acidosis with biguanide therapy and refractory vasoplegic shock unresponsive to high vasopressor support, patients may respond well to Methylene blue.

ID 54

ANESTHETIC IMPLICATIONS OF PERSISTENT LEFT SUPERIOR VENA CAVA IDENTIFIED DURING CENTRAL VENOUS CATHETERIZATION IN A SEPTIC PATIENT

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BACKGROUND
Persistent left superior vena cava (PLSVC) is an uncommon but clinically significant congenital vascular anomaly with potential implications during central venous catheterization and hemodynamic monitoring in critically ill patients. Awareness of this condition is crucial to avoid misdiagnosis and prevent unnecessary catheter manipulation.

CASE PRESENTATION
An elderly patient presented with severe sepsis requiring central venous access for vasopressor support. A catheter was inserted via the left internal jugular vein under ultrasound guidance. Post-procedural imaging revealed an abnormal catheter trajectory along the left cardiac border, and pressure waveforms were inconsistent with typical venous patterns. CT angiography and venogram confirmed the presence of a PLSVC draining into an ectatic coronary sinus, with the catheter tip positioned within the anomalous vessel.

CONCLUSION
This case emphasizes the importance of considering vascular anomalies such as PLSVC during central venous catheterization, especially via the left-sided approach. This rare congenital anomaly can mimic malposition or arterial cannulation on imaging and waveform analysis. Awareness of this anomaly and early imaging evaluation can prevent misdiagnosis, reduce procedural risks, ensure safe use of the catheter for monitoring and therapeutic purposes. Anesthesiologists and critical care physicians should maintain a high index of suspicion for vascular anomalies when unexpected catheter positioning occurs.

Keywords
persistent left superior vena cava, central venous catheterization, hemodynamic monitoring, vascular anomaly, coronary sinus, CT angiography

ID 55

PAEDIATRIC INTENSIVE CARE UNIT (PICU) BOOKINGS AND ADMISSIONS FOLLOWING PAEDIATRIC EAR, NOSE AND THROAT (ENT) SURGERY: A THREE-YEAR RETROSPECTIVE REVIEW

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OBJECTIVES

Paediatric ENT surgeries carry a perceived increased postoperative risk contributing to high preoperative PICU bookings. The aim of this study is to determine the number of preoperative PICU booking and their utilization postoperatively after paediatric ENT surgery.

METHODS

This is a retrospective study involving paediatric patients undergoing ENT surgery in UMMC from January 2022-June 2025. Data was extracted from the PICU REDCAP database and booking logs. Data analysis was performed to identify number of preoperative bookings, postoperative PICU admissions, type of ENT surgery and length of PICU stay.

RESULTS

A total of 1,310 preoperative PICU bookings were made, of which 193 (14.7%) were for ENT surgeries. Among these, nearly 40% involved patients undergoing direct laryngotracheobronchoscopy (DLTB), followed by adenotonsillectomy (22.3%). The overall postoperative PICU utilisation rate for ENT bookings was 24.4% (47/193). Patients undergoing tracheostomy-related procedures accounted for the highest proportion of PICU admissions (18/47; 38.3%), followed by DLTB (11/47; 23.4%) and adenotonsillectomy (6/47; 12.8%). Notably, tracheostomy-related procedures had the highest conversion rate, with 18 out of 31 patients (58.1%) admitted to PICU. In contrast, despite higher booking volumes, DLTB and adenotonsillectomy showed lower conversion rates of 14.3% (11/77) and 14.0% (6/43) respectively.

CONCLUSION

Preoperative PICU bookings for paediatric ENT surgeries demonstrated a low overall conversion to actual admission, particularly for DLTB and adenotonsillectomy. These findings serve as a precursor to an in-depth analysis of patient, anaesthetic and surgical factors to improve booking triaging for more effective and judicious use of critical care resources.

ID 56

DELPHI CONSENSUS APPROACH ON PERIPHERAL VENOUS LINE (PVL) CARE BUNDLE IN PAEDIATRIC INTENSIVE CARE UNIT

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OBJECTIVES

To develop peripheral venous line (PVL) care bundle suitable for use in PICU by expert consensus.

METHODS

The Delphi consensus approach was used to develop a PVL care bundle. Focusing on the audit outcome derived from lean management audit board identified twelve item list of PVL bundle statements (round 1). The statements were then made into seven-point Likert scale questionnaire. A multidisciplinary panel of experts in paediatric care was selected to rate the questionnaire based on the importance of PVL care (round 2). The threshold was set at >80% rate of agreement (Likert point ≥ 5). A final questionnaire with group rating and rephrasing of the statements was rerated in round 3.

RESULTS

A total of 30 clinicians (61.5% had >5 years experience in pediatrics) were included in the panel. The response rate was 26 (86.7%) in round 2 and 3. At round 3 consensus (≥80%) was achieved in 10 out of 12 statements. The consensus was then simplified into 8 main criteria which is clinical necessity, aseptic technique & hand hygiene, flushing technique, safe administration, ongoing site monitoring, dressing integrity, infusion set maintenance and documentation.

CONCLUSION

PVL is important in intensive care in assisting clinical management. Substandard care of PVL may lead to phlebitis, infiltration or catheter-associated bloodstream infection. This will lead to prolonged hospital stay, increased cost and trauma due to multiple PVL insertion attempt which may compromise patient care and safety. The consensus was derived from panelist following an audit of incident reporting, plan-do-study-act cycle on PVL bundle care in PICU.

ID 58

TRAINING KIT FOR PERIPHERAL VENOUS LINE (PVL) BUNDLE CARE ELEMENTS

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OBJECTIVES

To develop a training kit for PVL bundle care in Paediatric ICU.

METHODS

A PVL bundle care was developed as an outcome from an audit of incident reportings of PVL related injuries. Intervention includes targeted training on vascular access care, proper handling of infusion smart pumps, and accurate documentation of practices. Following the plan-do-study-act exercise, a 12 statements PVL bundle care was reported and underwent Delphi consensus to develop the final PVL bundle care elements for PICU. A training kit which includes lecture series, hands-on skills station, and multiple choice questions (MCQ) was implemented.

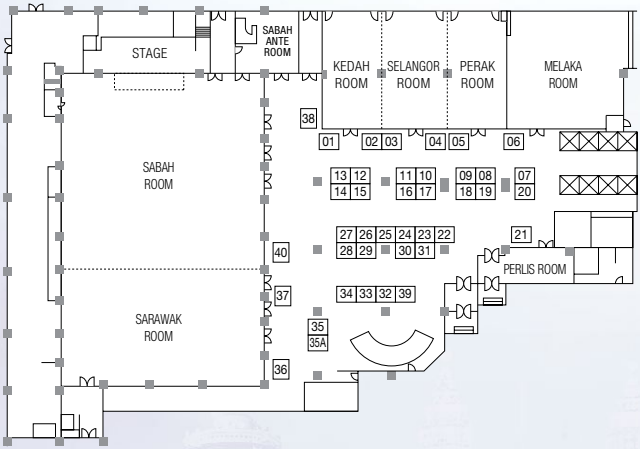
RESULTS

A total of 30 PICU staffnurses underwent training for PVL care which focuses on PVL bundle care elements. The elements main criteria were assessing PVL clinical necessity, aseptic technique & hand hygiene, flushing technique, safe administration, ongoing site monitoring, dressing integrity, infusion set maintenance and documentation. Each nurse had one encounter of lecture, hands-on skills station and assessment via pre and post training MCQ examination. The initial pre training MCQ results showed 70% nurses had full marks for MCQ which improved to post training MCQ result of 100% full marks. Apart from that, audit done post training reported the number of PVL related injuries in PICU reduced from 4% to zero incident. Nurses' compliance to PVL workflow and guideline were also increased from 33% to 100%.

CONCLUSION

PVL-related injuries in the PICU are important as it imposes more harm to the patient and incur more cost to the expensive ICU care. By focusing on training for PICU nurses, we are able to enhance patient safety, reduce complications and reduce unnecessary incurred cost to ICU stay.

Floor Plan & Trade Exhibition (Basement II)



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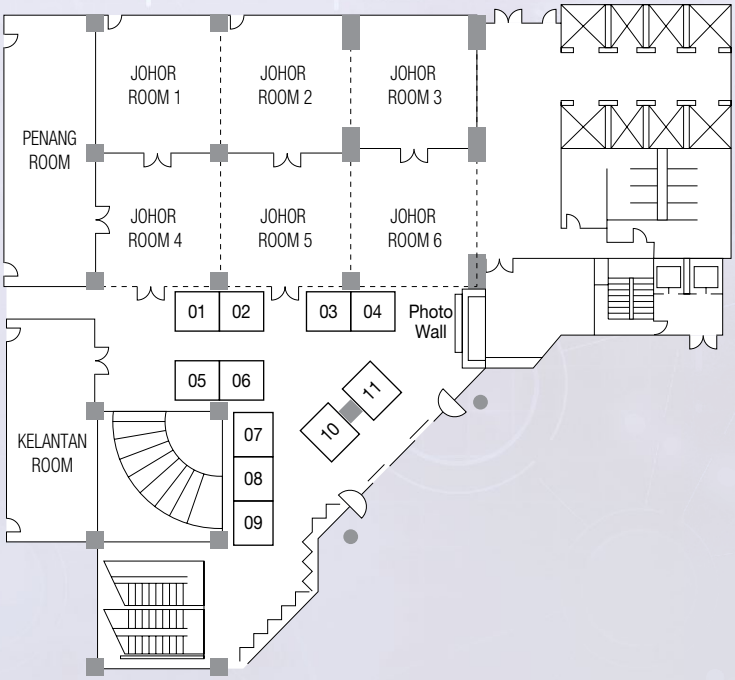

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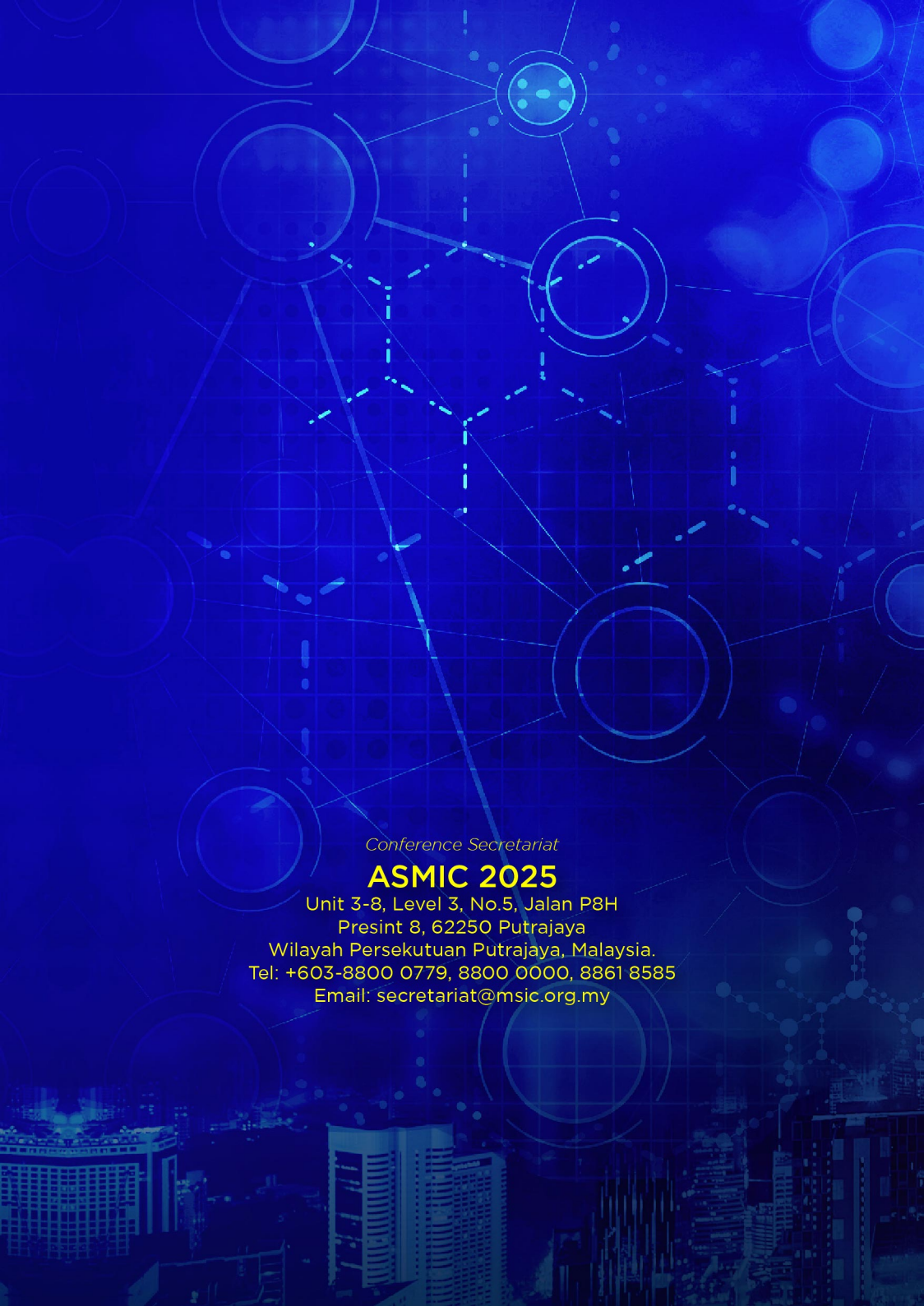

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ASMIC 2025

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