



VIRTUAL

ASMIC 2021

ANNUAL SCIENTIFIC MEETING ON INTENSIVE CARE

3rd to 5th September 2021



www.msic.org.my

ORGANISING COMMITTEE

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

INVITED SPEAKERS

Australia

Charley Greentree
Andrew Udy

Belgium

Manu Malbrain

Canada

Laurent Brochard
Alison Fox-Robichaud

Connecticut

David P Nicolau

Germany

Christian Bozsak

Greece

Dimitrios Georgopoulos

Hong Kong

Gavin Joynt

India

Arun Bansal
Sheila N Myatra

Indonesia

Pustaka Efar

Italy

Maurizio Cecconi
Francesco Giuseppe De Rosa

Japan

Takeshi Yoshida

Norway

Hans Flaatten

Philippines

Albert L Rafanan

Singapore

Lee Jan Hau
Manish Kaushik
Jacqueline Ong
Voo Teck Chuan

Malaysia

Ani Suraya Abdul Ghani
Anis Siham Zainal Abidin
Asmah Zainudin
Azmin Huda Abdul Rahim
Basri Mat Nor
Chor Yek Kee
Fong Choong Yi
Foong Kit Weng
Gan Chin Seng

Hasimah Zainol
Ismail Tan Mohd Ali Tan
Lee Chew Klok
Lim Chew Har
Mohamed Hassan
Mohamed Ariff
Mohd Ridhwan Md Nor
Noryani Mohd Samat
Pon Kah Min

Spain

Antonio Artigas Raventos

Thailand

Rujjpat Samransamruajkit
Nattachai Srisawat

The Netherlands

Martin Kneyber
Thomas Scheeren

United Kingdom

Lui Forni
Jonathan Lillie
Reinout Mildner
Mervyn Singer
Charlotte Summers
Adrian Wong

Pravin a/I Sugunan @
Vasanthan
Shanti Rudra Deva
Sheila Gopal Krishnan
Soo Kok Wai
Tan Hui Siu
Wan Nasrudin Wan Ismail
Justin Wang
Wong Sau Wei
Carolyn Yim Chue Wai

WELCOME MESSAGE

A warm welcome to all and thank you for your ongoing support and participation towards ASMIC 2021. Despite the immense workload during the COVID-19 pandemic, I commend your efforts for continuous education. We hope that, the programme, though moved to a virtual platform, will still be a rewarding and pleasant 'learning' experience.

The challenges faced in the last one year have been extraordinary, painful and humbling. Many of us have felt the tribulations of this pandemic on a personal level and its devastation on the community we cherish. Some of its effects may already be evident in some of us and in the future, more may register symptoms of distress from this experience. We have dedicated a symposium to workplace welfare and nurturing; and another on ethical dilemmas that the pandemic has raised. We hope you will gain clarity and new skills necessary to navigate through these experiences.

But what we must celebrate now is our collective greatness - of team work, of adaptability, of determination and of courage. We can celebrate this by uploading our images as tributes to our colleagues and friends during this great battle. And this sharing will be for all to esteem.

Our paediatric faculty have also put up a rich and compact programme with many renowned speakers. COVID-19 has not spared the paediatric population. A plenary and a symposium have also been dedicated for this. Likewise, a symposium has been devoted to nurses for their roles in the care of critically ill COVID-19 patients.

Lastly, I would like to thank the pharmaceutical industry for their unceasing support and contribution to the success of ASMIC 2021. Please visit the virtual exhibition hall. Prizes await those who diligently do so.

Sit back in a comfortable nook and enjoy the conference.



Dr Louisa Chan Yuk Li
Organising Chairperson
Annual Scientific Meeting on Intensive Care 2021

PROGRAMME SUMMARY

Date Time	3 rd September 2021 (Friday)	4 th September 2021 (Saturday)	5 th September 2021 (Sunday)
0830 - 0900		PLENARY 4	SYMPOSIA
0900 - 0930	SYMPOSIA	SYMPOSIA	
0930 - 1000			13 14
1000 - 1030	1 2 3	7 8 9	Break / Virtual booth
1030 - 1100	Break / Virtual booth	Break / Virtual booth	Satellite Symposium
1100 - 1130	Satellite Symposium	Satellite Symposium	PLENARY 8
1130 - 1200	PLENARY 1	Satellite Symposium	PLENARY 9
1200 - 1230	PLENARY 2	PLENARY 5	Satellite Symposium
1230 - 1300	PLENARY 3	PLENARY 6	PLENARY 10
1300 - 1330	Break / Virtual booth / Friday prayers	Break / Virtual booth	PLENARY 11
1330 - 1400	Satellite Symposium	Satellite Symposium	CLOSING SPEECH
1400 - 1430	SYMPOSIA	SYMPOSIA	
1430 - 1500		10 11 12	
1500 - 1530	4 5 6	PLENARY 7	
1530 - 1600		Satellite Symposium	
1600 - 1630	Satellite Symposium	Satellite Symposium	
1630 - 1700		Break / Virtual booth	
1700 - 1730	Best Poster Presentation	Annual General Meeting of the Malaysian Society of Intensive Care	
1730 - 1800	T Sachithanandan Oral Free Paper Presentation		
1800 - 1830			

DAILY PROGRAMME

3rd September 2021 (Friday)

<p>0900 - 1040 <i>Hall 1</i></p> <p>SYMPOSIUM 1 Sepsis Chairperson: <i>Nor'Azim Mohd Yunos</i></p> <p>Immunothrombosis: The key to sepsis pathogenesis and diagnosis <i>Alison Fox-Robichaud</i></p> <p>Fluids versus vasopressors in septic shock - Less is more <i>Andrew Udy</i></p> <p>Sepsis Hysteria - A balanced view of life, death and our ability to alter outcomes <i>Mervyn Singer</i></p> <p>Vitamin C in septic shock - Where does the evidence leave us? <i>Andrew Udy</i></p> <p>Q&A session</p>	<p>0900 - 1040 <i>Hall 2</i></p> <p>SYMPOSIUM 2 Paediatrics: Endocrine and Cardiac Chairperson: <i>Pazlida Pauzi</i></p> <p>Pearls in the management of a child with DKA <i>Anis Sibam Zainal Abidin</i></p> <p>Dysnatraemias in the PICU <i>Pon Kah Min</i></p> <p>Myocarditis and cardiomyopathy <i>Ani Suraya Abdul Ghani</i></p> <p>Management of cardiac arrhythmias in the PICU <i>Soo Kok Wai</i></p> <p>Q&A session</p>	<p>0900 - 1040 <i>Hall 3</i></p> <p>SYMPOSIUM 3 Intensive Care Nursing I Chairperson: <i>Noryani Mohd Samat</i></p> <p>Post cardiac arrest care: Sedation and temperature management <i>Ismail Tan Mohd Ali Tan</i></p> <p>Preventing pressure ulcer in ICU. What else? <i>Hasimah Zainol</i></p> <p>Optimizing sleep in the ICU: Role of nurses <i>Noryani Mohd Samat</i></p> <p>Practical application of NIV and HFOT <i>Foong Kit Weng</i></p> <p>Q&A session</p>
---	--	---

1040 - 1050 Break / Virtual booth

1050 - 1120 **Satellite Symposium (Medtronic)**
The art of Intubation during the COVID era in intensive care: A masterclass of its own
Carolyn Yim Chue Wai

1120 - 1150 **PLENARY 1**
Chairperson: *Noor Airini Ibrahim*
Medico-legal implications in the ICU
Mohamed Hassan Mohamed Ariff

1150 - 1220 **PLENARY 2**
Chairperson: *Noor Airini Ibrahim*
COVID-19 effects on the kidney
Lui Forni

DAILY PROGRAMME

3rd September 2021 (Friday)

1220 - 1250 **PLENARY 3**
Chairperson: Noor Airini Ibrahim
 Immunomodulatory therapies for COVID-19 - Two sides to every coin
Mervyn Singer

1250 - 1315 Break / Virtual booth / Friday prayers

1315 - 1415 **Satellite Symposium (Sanofi-Aventis)**
 VTE risk prediction in ICU
Lee Chew Kiok

Interactive case discussion: Balancing antithrombotic efficacy and bleeding risk in VTE
Lee Chew Kiok

<p>1430 - 1610 <i>Hall 1</i></p> <p>SYMPOSIUM 4 Workplace Welfare Chairperson: <i>Tai Li Ling</i></p> <p>Health care professional burnout - The individual or the system <i>Adrian Wong</i></p> <p>Resilience - Individual performance optimisation <i>Charley Greentree</i></p> <p>Moral distress among health care professionals <i>Sheila Gopal Krishnan</i></p> <p>Building resilience into your workplace <i>Charley Greentree</i></p> <p>Q&A session</p>	<p>1430 - 1610 <i>Hall 2</i></p> <p>SYMPOSIUM 5 Haemodynamics Chairperson: <i>Premela Naidu Sitaram</i></p> <p>Are we ready for noninvasive haemodynamic monitoring? <i>Thomas Scheeren</i></p> <p>Haemodynamic effects of renal replacement therapy <i>Lui Furni</i></p> <p>Hypotension prediction index - A new haemodynamic monitoring tool <i>Thomas Scheeren</i></p> <p>Distributive shock - Novel therapies <i>Basri Mat Nor</i></p> <p>Q&A session</p>	<p>1430 - 1610 <i>Hall 3</i></p> <p>SYMPOSIUM 6 Paediatrics: Respiratory Chairperson: <i>Pon Kah Min</i></p> <p>Patient-ventilator dyssynchrony: How does it matter? <i>Gan Chin Seng</i></p> <p>PARDS: Targets for oxygenation and ventilation <i>Rujipat Samransamruajkit</i></p> <p>What is important? Tidal volumes or driving pressures? <i>Arun Bansal</i></p> <p>Setting PEEP in PARDS: Is there a recipe? <i>Reinout Mildner</i></p> <p>Q&A session</p>
--	---	---

1610 - 1655 **Satellite Symposium (Grifols)**
 Fluid resuscitation and hemodynamic support in sepsis and ARDS
Antonio Artigas Raventos

1700 - 1735 **Best Poster Presentation**
Chairperson: Gan Chin Seng

1735 - 1810 **T Sachithanandan Oral Free Paper Presentation**
Chairperson: Gan Chin Seng

DAILY PROGRAMME

4th September 2021 (Saturday)

0830 - 0900 **PLENARY 4**
Chairperson: Foong Kit Weng
 COVID-19 ARDS: Is it different?
Laurent Brochard

0900 - 1040 <i>Hall 1</i> SYMPOSIUM 7 Ventilation Chairperson: <i>Foong Kit Weng</i> Spontaneous breathing in ARDS <i>Takeshi Yoshida</i> Measuring lung recruitability: Why and how? <i>Laurent Brochard</i> PEEP in ARDS: Not too high, not too low <i>Takeshi Yoshida</i> Proning for all ARDS? <i>Lim Chew Har</i> Q&A session	0900 - 1040 <i>Hall 2</i> SYMPOSIUM 8 Paediatrics: Neurocritical Care Chairperson: <i>Lee Pei Chuen</i> Protocolised neurocritical care: What does it mean for my patient? <i>Justin Wang</i> The basics of continuous EEG <i>Fong Choong Yi</i> What's new in paediatric stroke management? <i>Wong Sau Wei</i> New therapies for the encephalopathies <i>Arun Bansal</i> Q&A session	0900 - 1040 <i>Hall 3</i> SYMPOSIUM 9 Intensive Care Nursing II: Caring for the COVID-19 Patients Chairperson: <i>Asmah Zainudin</i> COVID-19 Infection and HCW: Practical aspects <i>Wan Nasrudin Wan Ismail</i> Prone positioning in COVID-19 <i>Asmah Zainudin</i> Challenges in sedation of COVID-19 patients <i>Shanti Rudra Deva</i> Tackling the psychosocial aspect of COVID-19: Patient and family <i>Azmin Huda Abdul Rahim</i> Q&A session
--	--	---

1040 - 1045 Break / Virtual booth

1045 - 1115 **Satellite Symposium (Fresenius Medical Care)**
 CiCa usage among COVID-19 patient
Manish Kaushik

1115 - 1145 **Satellite Symposium (Baxter)**
Chairperson: Basri Mat Nor
 Extracorporeal therapies beyond boundaries?
Nattachai Srisawat

1145 - 1215 **PLENARY 5**
Chairperson: Nabla Irtiza Ismail
 Fluids and the impact on the abdomen
Manu Malbrain

DAILY PROGRAMME

4th September 2021 (Saturday)

1215 - 1245 **PLENARY 6**
Chairperson: Nabla Irtiza Ismail
 Physician heal yourself: Intensivists need to consider wellness training
Alison Fox-Robichaud

1245 - 1300 Break / Virtual booth

1300 - 1400 **Satellite Symposium (Pfizer)**
 Management of MDR gram-negative bacterial infections in ICU
David P Nicolau

1400 - 1540 SYMPOSIUM 10 <i>Fluids</i> Chairperson: <i>Premela Naidu Sitaram</i> Fluid therapy - how to optimise <i>Manu Malbrain</i> Remember fluid resuscitation <i>Adrian Wong</i> Albumin for fluids - Key points <i>Mohd Ridhwan Md Nor</i> Fluid therapy stewardship <i>Adrian Wong</i> Q&A session	<i>Hall 1</i>	1400 - 1540 SYMPOSIUM 11 <i>Respiratory</i> Chairperson: <i>Louisa Chan Yuk Li</i> Non-invasive respiratory support in COVID-19 <i>Sheila N Myatra</i> Patient and ventilator dyssynchrony in the COVID-19 patient <i>Dimitrios Georgopoulos</i> Personalised medicine through biological phenotyping of ARDS <i>Charlotte Summers</i> Neuromuscular blockade in ARDS <i>Dimitrios Georgopoulos</i> Q&A session	<i>Hall 2</i>	1400 - 1540 SYMPOSIUM 12 <i>Paediatrics: Managing the Child with COVID-19</i> Chairperson: <i>Lina Lim</i> Using non-invasive ventilation <i>Rujipat Samransamruajkit</i> Lung protective ventilation: Knowns and unknowns <i>Martin Kneuber</i> Recommended therapies for MIS-C <i>Jonathan Lillie</i> Long haulers in children <i>Jacqueline Ong</i> Q&A session	<i>Hall 3</i>
--	---------------	--	---------------	---	---------------

1540 - 1610 **PLENARY 7**
Chairperson: Gan Chin Seng
 Children and COVID-19: What the past year has taught us
Jonathan Lillie

1610 - 1640 **Satellite Symposium (Bio Merieux)**
 Clinical use of rapid molecular diagnostic tests with syndromic strategies in managing CAP and HAP
Albert L Rafanan

1640 - 1700 Break / Virtual booth

1700 **Annual General Meeting of the Malaysian Society of Intensive Care**

DAILY PROGRAMME

5th September 2021 (Sunday)

<p>0830 - 1010 <i>Hall 1</i></p> <p>SYMPOSIUM 13 <i>Pandemic Ethics</i> Chairperson: <i>Noor Airini Ibrahim</i></p> <p>Ethical guidance for providing unproven interventions during public health emergencies: The Singapore experience of COVID-19 pandemic <i>Voo Teck Chuan</i></p> <p>Triaging the ethical issues in Malaysia during the COVID-19 pandemic <i>Tan Hui Siu</i></p> <p>Ethical issues of COVID-19 in the elderly <i>Hans Flaatten</i></p> <p>Health care workers in a pandemic - Do we have a choice? <i>Gavin Joynt</i></p> <p>Q&A session</p>	<p>0830 - 1010 <i>Hall 2</i></p> <p>SYMPOSIUM 14 <i>Paediatrics: Nutrition</i> Chairperson: <i>Tai Chian Wern</i></p> <p>Feeding the malnourished child in the PICU <i>Chor Yek Kee</i></p> <p>Early enteral nutrition: What's more important, timing or amount? <i>Lee Jan Hau</i></p> <p>Importance of micronutrients <i>Pravin all Suguman @ Vasanthan</i></p> <p>Nutritional support teams and protocols: The evidence <i>Pustaka Efar</i></p> <p>Q&A session</p>
--	--

1010 - 1015 Break / Virtual booth

1015 - 1045 **Satellite Symposium (Draeger)**
Image guided lung protection
Christian Bozsak

1045 - 1115 **PLENARY 8**
Chairperson: *Tang Swee Fong*
Ventilator-induced lung injury in children: A reality?
Martin Kneyber

1115 - 1145 **PLENARY 9**
Chairperson: *Tang Swee Fong*
Therapies for COVID-19
Charlotte Summers

1145 - 1230 **Satellite Symposium (Pfizer)**
Managing challenging invasive mould infections in the ICU setting?
Francesco Giuseppe De Rosa

DAILY PROGRAMME

5th September 2021 (Sunday)

- 1230 - 1300 **PLENARY 10**
Chairperson: *Nabla Irtiza Ismail*
Prognostication in intensive care, anything new?
Hans Flaatten
- 1300 - 1330 **PLENARY 11**
Chairperson: *Nabla Irtiza Ismail*
Leadership during COVID-19: Lessons learnt
Maurizio Cecconi
- 1330 - 1345 **Closing Speech by President**
Best poster and oral presentation awards
Lucky draw and prize giving

CONGRESS INFORMATION

CONGRESS SECRETARIAT

ASMIC 2021

Unit 1.6, Level 1, Enterprise 3B, Technology Park Malaysia
 Jalan Inovasi 1, Bukit Jalil, 57000 Kuala Lumpur, Wilayah Persekutuan
Tel: +603 8996 0700, 603 8996 1700, 603 8996 2700 **Fax:** +603 8996 4700
Email: secretariat@msic.org.my **Website:** www.msic.org.my

REGISTRATION FEES

Category	Till 15 th July 2021	From 16 th July to 28 th August 2021	3 rd to 5 th September 2021
Local			
Member of MSIC / Allied Health Professional	RM 200	RM 250	RM 300
Non-Member of MSIC - Doctor	RM 300	RM 350	RM 400
Overseas			
Delegate	USD 100	USD 125	USD 150

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

PAYMENT

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

Payment should be sent with the completed Registration Form to the Congress Secretariat.

Payments can be made via telegraphic transfer to:

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

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

CONGRESS INFORMATION

HOSPITAL - SPONSORED DELEGATES

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

CANCELLATION AND REFUND POLICY

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

Cancellation on or before 22nd August 2021 : 50% refund
Cancellation after 23rd August 2021 : Nil

CERTIFICATE OF ATTENDANCE

Certificate of Participation will be issued to all delegates.

LIABILITY

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

SUBMISSION OF ABSTRACTS

ASMIC 2021 welcomes the submission of abstracts for consideration as Oral or Poster Presentations. The closing date for submission is 30th June 2021.

DISCLAIMER

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

FREE COMMUNICATIONS

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

The following awards will be given:

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

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

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

DEADLINE FOR SUBMISSION OF ABSTRACTS: **30th June 2021**

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

GUIDELINES FOR SUBMISSION OF ABSTRACTS

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

WHERE APPROPRIATE, THE ABSTRACTS SHOULD CONTAIN THE FOLLOWING

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

FREE COMMUNICATIONS

ABSTRACT PREPARATION AND SUBMISSION

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

ABSTRACT SUBMITTERS' DECLARATION

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

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

IMPORTANT

Please submit abstracts to www.msic.org.my

ACKNOWLEDGEMENTS

The Organising Committee of ASMIC 2021 records its deepest appreciation to the following companies for their contributions and support:

EMERALD SPONSOR



Pfizer (Malaysia) Sdn Bhd

DIAMOND SPONSOR



SANOFI

Sanofi-Aventis (Malaysia) Sdn Bhd

PLATINUM SPONSOR

GRIFOLS

Grifols Malaysia Sdn Bhd

GOLD SPONSORS



Medtronic Malaysia
Sdn Bhd



Biomerieux
Malaysia
Sdn Bhd



Dräger Malaysia
Sdn Bhd



Fresenius Medical Care
Malaysia Sdn Bhd



Baxter Health Care (M)
Sdn Bhd

SILVER SPONSORS



Daya Cergas
(Malaysia) Sdn Bhd



4U-Tech Corporation
Sdn Bhd



CVS Medical
Sdn Bhd



Nestlé Health
Science



Insan Bakti Sdn Bhd

ORAL PRESENTATIONS

- OP 01 EFFECTIVENESS OF PROTOCOL-DIRECTED SEDATION WITH COMFORT BEHAVIOR SCALE IN MECHANICALLY VENTILATED CHILDREN**
S C Lee, C S Gan, S L Chuah
University of Malaya, Kuala Lumpur, Malaysia
- OP 02 PROCALCITONIN TO ALBUMIN RATIO AS A PREDICTOR OF ICU MORTALITY IN SEPSIS**
Siti Afifah Abd Manas¹, Wan Fadzlina Wan Muhd Shukeri¹, Mohd Zulfakar Mazlan¹, Alwi Muhd Besari², Zakuan Zainy Deris³
¹*Department of Anesthesiology and Intensive Care, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*
²*Department of Internal Medicine, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*
³*Department of Microbiology, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*
- OP 03 EVALUATION OF AGREEMENT BETWEEN POINT-OF-CARE AND LABORATORY AUTOMATED IMMUNOASSAY IN PROCALCITONIN MEASUREMENT AMONG CRITICALLY ILL PATIENTS**
M A Ismail¹, W F Wan Muhd Shukeri¹, W N Wan Azman², N M Yaacob³, M Z Mazlan¹
¹*Department Anaesthesiology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*
²*Department Chemical Pathology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*
³*Unit Biostatistic and Research Methodology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia*

EFFECTIVENESS OF PROTOCOL-DIRECTED SEDATION WITH COMFORT BEHAVIOR SCALE IN MECHANICALLY VENTILATED CHILDREN

S C Lee, C S Gan, S L Chuah

University of Malaya, Kuala Lumpur, Malaysia

OBJECTIVE

To evaluate the impact of COMFORT-Behavior scale with protocol-directed sedation in mechanically ventilated children in PICU on mechanical ventilation days, length of PICU stay, the total amount and duration of sedative agents, the frequency of unplanned extubation.

DESIGN

Non-randomized prospective cohort study.

METHODS

Study conducted before and after protocol implementation with 6 months interval on each arm and 1-month period of training of the sedation protocol with COMFORT-B scale between 1.9.2018 until 30.9.2019. During the intervention period, sedation was managed as per protocol using COMFORT-B scale.

RESULTS

The observation group included patients admitted before protocol implementation over 6-months period (n= 38) and the intervention group included patients admitted after protocol implementation over 6-months period (n= 36). There was no statistically difference in demographic characteristics between the two groups. The use of protocol-directed sedation with the COMFORT-B scale in the intervention group was associated with a shorter duration of mechanical ventilation (median 2.39 days vs 2.98 days, $p = 0.161$), a shorter length of PICU stays (median 3.83 days vs 4.13days, $p = 0.499$), and a shorter duration of sedation exposure (median 2.06 days vs 2.60 days, $p = 0.222$). However, these results were not statistically significant. Further subgroup analysis in medical cases as admission diagnosis showed the intervention group had a statistically significant shorter duration of mechanical ventilation days (median 2.38 days vs 3.19 days, $p = 0.040$). There was no incidence of unplanned extubation in the intervention group. Duration of intravenous midazolam infusion was statistically shorter in the intervention group (median 0.88 days vs 1.79 days, $p = 0.045$). The total daily dose of intravenous morphine (median 363mcg/kg/day vs 441mcg/kg/day, $p = 0.554$) and intravenous midazolam (1.75mg/kg/day vs 1.81mg/kg/day, $p = 0.645$) was lower in the intervention group but the results were not statistically significant.

CONCLUSION

The use of COMFORT-B scale with protocol-directed sedation in mechanically ventilated children significantly reduced the mechanical ventilation days in children with medical causes as admission diagnosis.

PROCALCITONIN TO ALBUMIN RATIO AS A PREDICTOR OF ICU MORTALITY IN SEPSIS

Siti Afifah Abd Manas¹, Wan Fadzlina Wan Mubd Shukeri¹, Mohd Zulfakar Mazlan¹, Alwi Mubd Besari², Zakuan Zainy Deris³

¹Department of Anesthesiology and Intensive Care, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Malaysia

²Department of Internal Medicine, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Malaysia

³Department of Microbiology, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Malaysia

OBJECTIVE

High procalcitonin (PCT) and low albumin (ALB) concentrations have been associated with mortality in sepsis. The present study aimed to investigate the prognostic value of PCT to ALB ratio (PCT: ALB) for ICU mortality in patients with sepsis.

METHODS

This was a retrospective cohort study conducted in a mixed ICU at Hospital Universiti Sains Malaysia over a 3-year period. Consecutive adult patients admitted to the ICU who underwent simultaneous measurement of PCT and ALB who fulfilled the Sepsis-3 criteria were recruited. Serum PCT was measured with a point-of-care analyzer available in the ICU (Finecare™ PCT Rapid Test). Predictive performance of PCT: ALB was assessed by analysis of the receiver-operating characteristic (ROC) curve.

RESULTS

A total of 185 sepsis patients were recruited. The primary outcome of all-cause ICU mortality was 35.1%. Baseline PCT was significantly higher while baseline ALB was significantly lower in the non-survivors compared to the survivors [25.4 (SD = 31.2) vs 9.8 (SD = 20.0) ng/mL and 26.1 (SD = 5.4) vs 30.6 (SD = 6.5) g/dL, respectively, $P < 0.001$]. The computed PCT: ALB was significantly higher in the non-survivors compared to the survivors [1.04 (SD = 1.29) vs 0.36 (SD = 0.72), $P < 0.001$]. The area under the ROC curve of PCT: ALB for discrimination of ICU-mortality was 0.731 (95% CI 0.658-0.804) which was higher than PCT alone (AUC 0.721, 95% CI 0.647-0.796). The ideal cut-off value for PCT: ALB was 0.15 with sensitivity of 70.8% and specificity of 63.3%.

CONCLUSION

PCT: ALB is a potentially reliable tool to aid in the prognostication of sepsis although this requires further validation in a prospective multi-center study.

EVALUATION OF AGREEMENT BETWEEN POINT-OF-CARE AND LABORATORY AUTOMATED IMMUNOASSAY IN PROCALCITONIN MEASUREMENT AMONG CRITICALLY ILL PATIENTS

MA Ismail¹, WF Wan Mubd Shukeri¹, WN Wan Azman², NM Yaacob³, MZ Mazlan¹

¹Department Anaesthesiology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

²Department Chemical Pathology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

³Unit Biostatistic and Research Methodology, School Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

OBJECTIVE

We evaluated the degree of agreement between results obtained from the Finecare point of care procalcitonin (PCT) rapid quantitative test kit and the Roche laboratory automated immunoassay in procalcitonin measurement among critically ill patients.

DESIGN AND METHODS

This is a comparative observational study performed in the intensive care unit of Hospital Universiti Sains Malaysia by using patients' whole blood tested in both ways; Finecare PCT rapid quantitative test kit vs. Roche laboratory automated immunoassay. The degree of agreement was assessed by comparing the interpretation of the rapid test kit with the laboratory automated immunoassay.

RESULTS

A total of 40 samples were analysed in the study. Paired sample t-test showed a p-value of 0.9181 (>0.05), which indicated strong evidence for the null hypothesis. Pearson's correlation analysis produced a p-value of <0.05 . This concluded that both PCT measurement techniques were significantly correlated with a correlation coefficient of 0.959. The coefficient of determination (r^2) of the simple linear regression model for the data set faithful was 0.921. Regression analysis illustrated that OLS slope at 0.914, Deming slope at 0.950 and Passing-Bablok slope at 1.156.

CONCLUSION

In comparison to Roche laboratory automated immunoassay, the Finecare PCT rapid quantitative test kit offers a good alternative for PCT measurement among critically ill patients as the study revealed an almost perfect correlation between them.

POSTER PRESENTATIONS

- PP 01 RETROSPECTIVE COHORT STUDY ON ANTIBIOTIC USAGE IN THE INTENSIVE CARE UNIT: THE RISK FACTORS AND OUTCOME OF DRUG RESISTANCE**
Mohd Tarmimi M, Wan Mohd Nazaruddin W H, Ariffin Marzuki M, Wan Fadzlina W M S, Mohd Zulfakar M
Department of Anaesthesiology and Intensive Care, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia
- PP 02 NEEDS AND EXPERIENCES OF CRITICALLY ILL PATIENTS AND THEIR FAMILY MEMBERS IN INTENSIVE CARE UNIT: A QUALITATIVE STUDY**
E L Leong¹, C C Chew¹, J Y Ang¹, S L Lojikip¹, K W Foong²
¹*Clinical Research Centre, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia*
²*Anaesthesiology and Intensive Care Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia*
- PP 03 BURNOUT AMONG CRITICAL CARE PERSONNEL IN INTENSIVE CARE UNIT (ICU) DURING CORONAVIRUS DISEASE (COVID-19) PANDEMIC IN A TERTIARY HOSPITAL IN MALAYSIA**
C C Goh¹, A H M Leow¹, E L Leong², J Y Ang², K W Foong¹
¹*Anaesthesiology and Intensive Care Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia*
²*Clinical Research Centre, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia*
- PP 04 ACUTE KIDNEY INJURY AMONG CRITICALLY ILL PATIENTS WITH INFLUENZA A IN A TERTIARY HOSPITAL ICU IN MALAYSIA: RETROSPECTIVE OBSERVATIONAL STUDY**
M M Ooi¹, C H Lim², Idawina², Carolyn Yim¹
¹*University Malaya Medical Centre, Kuala Lumpur, Malaysia*
²*Penang General Hospital, Pulau Pinang, Malaysia*
- PP 05 EPIDEMIOLOGY AND MICROBIOLOGY OF VENTILATOR-ASSOCIATED PNEUMONIA IN COVID 19 PATIENTS: A RETROSPECTIVE STUDY OF 284 PATIENTS IN HOSPITAL SERDANG IN 2021**
M L Idawina, M Priscilla, I Norly
Department of Anaesthesia and Critical Care, Hospital Serdang, Selangor, Malaysia
- PP 06 CLINICAL CHARACTERISTICS AND RISK FACTORS FOR MORTALITY IN CHILDREN WITH SEVERE PNEUMONIA IN PICU**
J J Ng¹, C S Gan², T Y Yap²
¹*Hospital Serdang, Selangor, Malaysia*
²*University of Malaya, Kuala Lumpur, Malaysia*

POSTER PRESENTATIONS

PP 07 RETROPERITONEAL BLEEDING IN HOSPITALIZED COVID-19 PATIENT: ANTI-COAGULANT OVERDOSE, HIGH STEROID-INDUCED OR PURE COVID-19 COMPLICATION?

Noor Rasyidah Khor Muhammad Azmi Khor, Nor Hidayah Zainool Abidin,
Rusnah Ab Rahman

¹Anaesthesiology Department, Hospital Bukit Mertajam, Pulau Pinang, Malaysia

²Anaesthesiology Department, Hospital Seberang Jaya, Pulau Pinang, Malaysia

PP 08 ROLE OF BRONCHOSCOPY IN A MECHANICALLY VENTILATED ACUTE SEVERE BRONCHIAL ASTHMA PATIENT

J C Teoh¹, K Manurgar²

¹Hospital Seberang Jaya, Pulau Pinang, Malaysia

²Hospital Sungai Bakap, Pulau Pinang, Malaysia

PP 09 REGIONAL CITRATE ANTICOAGULANT IN PAEDIATRIC CONTINUOUS RENAL REPLACEMENT THERAPY: SHARING LOCAL EXPERIENCE IN PICU PENANG GENERAL HOSPITAL

Nurmaira Hashim, K M Pon

Penang General Hospital, Pulau Pinang, Malaysia

PP 10 A CASE REPORT OF A PATIENT WITH SEVERE COVID-19 PNEUMONIA WHO WAS SUCCESSFULLY TREATED WITH NON-INVASIVE VENTILATION

Aizuddin Ismail, Mohamad Hasyizan Hassan, Wan Fadzlina Wan Muhd Shukeri,
Huda Zainal Abiddin, Mohd Zulfakar Mazlan

Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

PP 11 COVID-19 IN CHILDREN - A CASE SERIES WITH A SPECTRUM OF CLINICAL MANIFESTATIONS

Y S Chee¹, S T Kong¹, A Subramaniam², P K Ng², Q Y Wang^{1,2}

¹University Malaya Medical Centre, Kuala Lumpur, Malaysia

²University of Malaya, Kuala Lumpur, Malaysia

PP 12 CASE REPORT: RECURRENT FAILED EXTUBATION CAUSED BY CRITICAL ILLNESS POLYNEUROPATHY

S L Chuah¹, Y S Chee², L M Li¹, W N S Wan Johan¹, S F Bohari¹

¹University of Malaya, Kuala Lumpur, Malaysia

²University Malaya Medical Centre, Kuala Lumpur, Malaysia

RETROSPECTIVE COHORT STUDY ON ANTIBIOTIC USAGE IN THE INTENSIVE CARE UNIT: THE RISK FACTORS AND OUTCOME OF DRUG RESISTANCE

Mohd Tarmimi M, Wan Mohd Nazaruddin W H, Ariffin Marzuki M, Wan Fadzlina W M S, Mohd Zulfakar M

Department of Anaesthesiology and Intensive Care, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

BACKGROUND

The antibiotic resistance remains a major problem in the intensive care unit (ICU) and this study aimed to identify its risk factors and outcomes.

METHODS

This was a retrospective single-centre cohort study involving 440 patients in the ICU between January 2017 to December 2019. Their medical records were reviewed to identify the risk factors and outcomes of antibiotic resistance.

RESULTS

The prevalence of antibiotic resistance was 22.3%. The odds for antibiotic resistance were increased 2.90 times with medical admission (odds ratio [OR] 2.897; 95% confidence interval [CI] 1.560, 5.379; $p = 0.01$) and 3.42 times with carbapenem usage (OR 3.418; 95% CI 1.790, 6.526; $p < 0.001$). The odds were 73.2% lower with nitroimidazole usage ($\beta = -1.318$, OR 0.268; 95% CI 0.131, 0.546; $p < 0.001$) and 62.2% lower with macrolide usage ($\beta = -0.973$, OR 0.378; 95% CI 0.150, 0.950; $p = 0.039$). Each day of antibiotic usage increased the odds of antibiotic resistance by 1.07 times (OR 1.072; 95% CI 1.037, 1.111; $p < 0.001$), and each additional antibiotic prescribed increased the odds of antibiotic resistance by 1.72 times (OR 1.717; 95% CI 1.218, 2.423; $p = 0.02$). The antibiotic resistance mortality rate was 68.4%.

CONCLUSION

Antibiotic resistance increased the mortality rate in the ICU, and the risk factors increased with medical-related admission, carbapenem usage, longer antibiotics duration and more antibiotic usage.

NEEDS AND EXPERIENCES OF CRITICALLY ILL PATIENTS AND THEIR FAMILY MEMBERS IN INTENSIVE CARE UNIT: A QUALITATIVE STUDY

E L Leong¹, C C Chew¹, J Y Ang¹, S L Lojikip¹, K W Foong²

¹Clinical Research Centre, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia.

²Anaesthesiology and Intensive Care Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia

INTRODUCTION

Admission to intensive care unit (ICU) is a stressful situation for both patients and family members. This study aimed to explore needs and experiences of critically ill patients and their family members in ICU.

METHOD

This is a qualitative study involving four trained researchers conducting in-depth-interview (IDI) using semi-structured interview guide, which was based on literature review and expert opinion. The participants were critically ill patients and their family members. All IDIs were audio-recorded and transcribed verbatim. Three researchers analysed the data independently via thematic analysis with the aid of QDA Miner Lite. The themes and subthemes were generated and confirmed by literatures and expert opinion.

RESULTS

Six IDIs were conducted with three patients and three family members. The participants' age ranged from 31 to 64 years old. Half of them were Malay Muslim and the other half were Chinese Buddhist. All the family members involved were spouse of the patients. Three themes emerged from the analysis, there were (i) Perception and experience in ICU setting, (ii) The need for information updates on patients' condition, and (iii) The need for personalized patient care. The perception of hopelessness and fear during ICU stay experienced by patients and family members necessitates them to have the need for regular and consistent information updates. They also require functioning accessory devices and comfort facilities, more personalized care, psychosocial and religious support during the stay.

CONCLUSION

This study provided an in-depth understanding of patients' and family members' needs and experience in ICU with a range of unmet needs. The information is important to guide the health care professionals and stakeholder to humanize ICU care.

BURNOUT AMONG CRITICAL CARE PERSONNEL IN INTENSIVE CARE UNIT (ICU) DURING CORONAVIRUS DISEASE (COVID-19) PANDEMIC IN A TERTIARY HOSPITAL IN MALAYSIA

C C Goh¹, A H M Leow¹, E L Leong², J Y Ang², K W Foong¹

¹Anaesthesiology and Intensive Care Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia

²Clinical Research Centre, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia

INTRODUCTION

Burnout among critical care personnel during Coronavirus Disease (COVID-19) does not only affect the individual, it may also lead to negative impact towards patients in intensive care unit (ICU) and healthcare system.

OBJECTIVES

To explore burnout and its associated factors among critical care personnel in ICU who are involved in COVID-19 pandemic.

METHOD

This cross-sectional study was conducted in ICU of a tertiary hospital in Perak. All critical care personnel involved in COVID-19 pandemic who met the study criteria were recruited. The questionnaire used to assess burnout was Copenhagen Burnout Inventory (CBI). Binary logistic regression analysis was performed to determine factors associated with burnout among critical care personnel in ICU. Variables with p-value < 0.05 were considered statistically significance.

RESULT

A total of 82 critical care personnel participated the study, with 67.1% of them experienced burnout. Majority of the respondents were female (61.0%), Muslim (63.4%) and more than 30 years old (61.0%). Fifty-five personnel were married, of whom 47.6% had children. Most of them (87.8%) were staying with family, relatives or friends. About half had degree qualification (45.1%). More than half were medical doctors (54.9%) and had less than 10 years of working experience (67.1%). Sixty-eight personnel had working hours more than 45 hours in the week before the questionnaire administration. Higher odds of burnout were seen in medical doctors [OR: 34.7 (5.46, 220.22); p-value < 0.001] and those who were staying with family, relatives or friends [OR: 9.57 (1.61, 57.05); p-value = 0.013].

CONCLUSION

Two-third of the personnel in ICU experienced burnout. Being a medical doctor and staying with family, relatives or friends have higher odds of burnout.

ACUTE KIDNEY INJURY AMONG CRITICALLY ILL PATIENTS WITH INFLUENZA A IN A TERTIARY HOSPITAL ICU IN MALAYSIA: RETROSPECTIVE OBSERVATIONAL STUDY

MM Ooi¹, C H Lim², Idawina², Carolyn Yim¹

¹University Malaya Medical Centre, Kuala Lumpur, Malaysia

²Penang General Hospital, Pulau Pinang, Malaysia

INTRODUCTION

Influenza A (H1N1) virus has caused considerable morbidity and death-rate since the start of the first documented global pandemic in 1918 resulting in twenty million people died worldwide. In Malaysia, the incidence of influenza A slightly increases since December 2019, but it is reported within the paediatric population and the normal range in the adult population according to the Health Ministry of Malaysia.

OBJECTIVES

This study aims to explore the prevalence of acute kidney injury (AKI) and baseline characteristics among critically ill influenza A infected patients and its effect on clinical outcomes.

METHODS

This study collected 61 patients' laboratory and clinical results, demographic data, and outcome data retrospectively for patients aged 18 years old and above with H1N1-related critical illness who were admitted to general intensive care unit (GICU) Penang General Hospital between 1st May 2019 till 30th April 2019. Acute kidney injury was classified according to Kidney Disease Improving Global Outcomes (KDIGO) criteria.

RESULTS

There were 44 (72.1%) patients who developed AKI within 72 hours of ICU admission. The study findings identified risk factors for AKI were diabetes mellitus ($p = .044$) and chronic lung disease ($p = .037$). 30-day mortality was associated with Acute Physiology and Chronic Health Evaluation II score ($p = .004$), Sequential Organ Failure Assessment score ($p = .001$) and Simplified Acute Physiology Score ($p = .005$).

CONCLUSIONS

Critically ill patients with Influenza A-related illness are at the significant risk of developing AKI within 72 hours of ICU admission. This causes prolonged ICU stay, hospital stay, and an increased in 30-day mortality.

EPIDEMIOLOGY AND MICROBIOLOGY OF VENTILATOR-ASSOCIATED PNEUMONIA IN COVID 19 PATIENTS: A RETROSPECTIVE STUDY OF 284 PATIENTS IN HOSPITAL SERDANG IN 2021

M L Idawina, M Priscilla, I Norly

Department of Anaesthesia and Critical Care, Hospital Serdang, Selangor, Malaysia

BACKGROUND

The COVID-19 pandemic is responsible for many hospitalizations in intensive care units (ICU), with widespread use of invasive mechanical ventilation (IMV) which exposes patients to the risk of ventilator-associated pneumonia (VAP). The characteristics of VAP in COVID-19 patients remain unclear.

OBJECTIVES

To retrospectively analyze the common organisms of ventilator associated pneumonia (VAP) and the outcomes in Severe Covid 19 pneumonia.

METHODS

We retrospectively collected data on all patients hospitalized for COVID-19 during the 3rd & 4th waves of the epidemic in COVID ICU of Serdang Hospital and who were on invasive mechanical ventilation for more than 48 hours. We studied the characteristics of VAP in these patients. VAP was diagnosed based on official recommendations, and we included only cases of VAP that were confirmed by a quantitative micro- biological culture.

RESULTS

We retrospectively analyzed 284 patients in our ICU. Of these patients, 45 % had VAP and 15 % had recurrent infections. Multimicrobial VAP was 30 % of all VAPS. Enterobacter and MRO accounted for 40 % of isolated microorganisms respectively, while 10 % also had concurrent bacteremia/fungaemia. 10 % of patients had VAP complicated with subcutaneous emphysema and pneumothorax. The mortality rate in this group of patients was 40%.

CONCLUSIONS

COVID-19 is associated with an increased risk of VAP, which is the sequelae of ARDS, complicated with prolonged duration of ventilation. The related high fatality is likely the sum of the unfavorable prognostic impacts of the underlying viral and the superimposed bacterial diseases.

CLINICAL CHARACTERISTICS AND RISK FACTORS FOR MORTALITY IN CHILDREN WITH SEVERE PNEUMONIA IN PICU

JJNg¹, C S Gan², TYYap²

¹Hospital Serdang, Selangor, Malaysia

²University of Malaya, Kuala Lumpur, Malaysia

BACKGROUND

Pneumonia is the leading cause of childhood morbidity and mortality. Incidence is higher in low- and middle-income countries. With better understanding of aetiology and risk factors of pneumonia, there was improvement of outcome of childhood pneumonia. Despite the improvement, it is still the common cause of childhood mortality.

OBJECTIVE

The study aims to describe the demographic, clinical, laboratory, microbiological characteristics of patients admitted into paediatric intensive care unit (PICU) with severe pneumonia. The secondary objectives were to compute the mortality rate among patients admitted to PICU, and to identify risk factors associated with mortality among this group of children.

DESIGN

Retrospective single centre study.

METHODS

Patients who were admitted to PICU, age ranged from > 1 months old to < 18 years old; with evidence of acute infection, acute respiratory illness, and radiological finding of pneumonia were included. The period of study was over 2 years from 1st Jan 2018 to 31st Dec 2019.

RESULTS

122 patients out of 1143 PICU admissions were recruited. The incidence of severe pneumonia in PICU was 10.7%. Majority were younger than 2 years old (n= 89, 73%), and 82 (67.2%) of them had underlying co-morbidities. The mortality rate was 5.7%. The most common virus and bacteria causing childhood pneumonia were Respiratory syncytial virus (RSV) and *Pseudomonas aeruginosa* respectively. The median survival time was 9 days. In univariate analysis, younger age group, Down syndrome, congenital heart disease, patent ductus arteriosus (PDA), mechanical ventilation, bacterial-bacterial co-infection and organ dysfunction were associated with mortality. However, all of these risk factors lost statistical significance in multivariate regression analysis.

CONCLUSION

Our study revealed that patients with severe childhood pneumonia that required PICU admission were those of younger age group and with underlying co-morbidities. Larger sample size should be included for future studies for better understanding of these associations.

RETROPERITONEAL BLEEDING IN HOSPITALIZED COVID-19 PATIENT: ANTI-COAGULANT OVERDOSE, HIGH STEROID-INDUCED OR PURE COVID-19 COMPLICATION?

Noor Rasyidah Khor Muhammad Azmi Khor, Nor Hidayah Zainool Abidin, Rusnah Ab Rahman

¹Anaesthesiology Department, Hospital Bukit Mertajam, Pulau Pinang, Malaysia

²Anaesthesiology Department, Hospital Seberang Jaya, Pulau Pinang, Malaysia

Triad of organizing pneumonia, venous thromboembolic state, and risk of secondary nosocomial sepsis in COVID-19 patients has led to the use of high dose steroid, anti-coagulant, and broad spectrum antibiotics. This carries a high risk of bleeding especially in the elderly patients without proper investigation of bleeding risk or any undiagnosed anatomical vessel problems.

We reported a patient with COVID-19 pneumonia category four who developed fatal retroperitoneal bleeding, haemorrhagic shock, and multiorgan failure. CTA abdomen found a large hematoma at the right psoas region resulting in intra-abdominal compartment syndrome. She developed severe metabolic acidosis with high lactate despite massive blood transfusion. Difficulty to get vascular access to proceed for urgent renal replacement therapy worsen her condition. The surgical option was to stabilize the patient and then refer her to the interventional radiology, however patient succumbed to her illness. A high degree of suspicion for spontaneous soft tissue hematoma (SSTH) may prevent the patient from decompensated shock and early intervention could have been done.

Effective management of retroperitoneal bleeding, abdominal compartment syndrome, and DIVC in terms of effective mean arterial pressure, overzealous blood product transfusion without bedside coagulation study, and urgent surgical or interventional management remain as discussion. Meanwhile, SSTH may happen due to virus-induced bleeding coagulopathy or may be due to the administration of anti-coagulant with high dose methylprednisolone. Therefore, clinicians should weigh the risk of haemorrhagic complications of the disease and be cautious of high dose steroid and anti-coagulants.

Keywords

COVID-19, spontaneous soft tissue hematoma, anti-coagulant, high dose steroid

ROLE OF BRONCHOSCOPY IN A MECHANICALLY VENTILATED ACUTE SEVERE BRONCHIAL ASTHMA PATIENT

J C Teoh¹, K Manurgar²

¹Hospital Seberang Jaya, Pulau Pinang, Malaysia

²Hospital Sungai Bakap, Pulau Pinang, Malaysia

We present a case of a 65-year-old lady with a background history of poorly controlled bronchial asthma. Presented to us with life threatening BA. She was intubated as she failed the systemic steroid and bronchodilator therapy. Post intubation she required high dose of sedation, nebulization with beta 2 agonist and antimuscarinic drugs, steroid, magnesium sulphate infusion and antibiotic, despite the intensive medical therapy as per standard protocol her bronchospasm did not resolve. As the outcome with above mentioned treatment remained unsatisfactory other non-standard therapies like ketamine, adrenaline, and aminophylline infusion, in addition to the use of volatile agent Sevoflurane were tried. All treatment proved futile hence we decided to proceed with bronchoscopy. During bronchoscopy, it was noted that there were large amounts of mucous plugs at the bronchus. Washout was done. Immediately after bronchoscopy we were able to wean down her ventilator settings and patient no longer had rhonchi, great improvement was also seen in patient's blood gas. Through this case report and a review of other available literatures we wish to point out the significance of bronchoscopy in a mechanically ventilated acute severe asthma.

REGIONAL CITRATE ANTICOAGULANT IN PAEDIATRIC CONTINUOUS RENAL REPLACEMENT THERAPY: SHARING LOCAL EXPERIENCE IN PICU PENANG GENERAL HOSPITAL

Nurmaira Hashim, K M Pon

Penang General Hospital, Pulau Pinang, Malaysia

Significant advances have been made in the care of children requiring renal replacement therapy (RRT) towards continuous RRT (CRRT) modality. Anticoagulant is required for CRRT in children to prolong the circuit lifespan in view of high risk of circuit clotting due to lower blood flow rate and smaller vascular catheters. Scarce data is available on usage of regional citrate anticoagulant (RCA) in pediatric group. We described our case series of managing paediatric CRRT with RCA following local guideline.

We have a case series of 3 patients (11 years old with diabetic ketoacidosis, 13 years old with tumour lysis syndrome and 7 years old with end stage renal failure). Heparin was not used as anticoagulant for CRRT due to risk of bleeding in these patients. Two patients used filter M100 and one used M60. Median circuit lifespan was 40 hours; ranges from 28 hours to 41 hours). Two of them had CRRT without use anticoagulant with circuit lifespan median of 12 hours duration.

Initial citrate dose was set at 3mmol/L and calcium compensation of 100%. Average dose of citrate used ranges 2.8-3.6mmol/L (median of 3.2mmol/L). Circuit lifespan in RCA CRRT was observed to be longer compared to without use anticoagulant (40 hours vs 12 hours). Common complications observed includes metabolic alkalosis, hypocalcaemia, hypomagnesaemia and hypophosphataemia. None had symptomatic hypocalcemia. Citrate toxicity was not observed in our patients.

CONCLUSION

Use of RCA was observed to prolong circuit lifespan for CRRT. From our series, RCA on paediatric CRRT is observed to be safe and effective other than causing electrolytes abnormalities. Randomised control trials are needed for better recommendation on RCA usage in paediatric CRRT.

A CASE REPORT OF A PATIENT WITH SEVERE COVID-19 PNEUMONIA WHO WAS SUCCESSFULLY TREATED WITH NON-INVASIVE VENTILATION

*Aizuddin Ismail, Mohamad Hasyizan Hassan, Wan Fadzlina Wan Muhd Shukeri, Huda Zainal Abiddin,
Mohd Zulfakar Mazlan*

Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

BACKGROUND

The surging number of new cases in Malaysia results in healthcare resource constraints, including Level 1 critical care beds and ventilators. Many cases are intubated emergently without a trial use of NIV in managing acute hypoxemia respiratory failure among COVID-19 patients.

CASE SUMMARY

We reported a case of severe COVID-19 pneumonia with clinical stage 4 who was managed with NIV in Level 2 ICU until the day of discharge. A 65-year-old Malay lady with underlying diabetes mellitus and ischemic heart disease presented with cough, shortness of breath, and chest pain. She had a close contact history with her husband, who was tested positive for COVID-19. Serial chest imaging revealed worsening bilateral ground-glass opacities in both lungs. Her condition deteriorated in the ward with a progressive increment in the oxygen requirement (fraction of inspired oxygen 1.0 and 60 liters of flow) under high flow oxygen therapy. She was indicated for intubation. However, a trial of NIV was successful on her until the day of deisolation to the general ward. She received NIV for a total of 10 days. Consequently, she recovered and managed to be discharged home at day 20 of illness.

CONCLUSION

A trial of NIV ventilation in a selected patients may offer an effective treatment for hypoxemia respiratory failure due to severe COVID-19 pneumonia.

COVID-19 IN CHILDREN - A CASE SERIES WITH A SPECTRUM OF CLINICAL MANIFESTATIONS

Y S Chee¹, S T Kong¹, A Subramaniam², P K Ng², Q Y Wang^{1,2}

¹University Malaya Medical Centre, Kuala Lumpur, Malaysia

²University of Malaya, Kuala Lumpur, Malaysia

Children with COVID-19 infection can experience a range of clinical manifestations, from being asymptomatic to severe illness.

CASE PRESENTATION

Our first case is an 18-month-old boy who presented with acute croup. He had a 3 day history of fever, associated with stridor and rapid breathing. He was treated with intravenous dexamethasone, nebulised budesonide and adrenaline. However, he developed respiratory failure requiring mechanical ventilation. A diagnosis of Multisystem Inflammatory Syndrome in Children (MIS-C) was made in view of persistent tachycardia, gastrointestinal symptoms and raised inflammatory markers. Nasopharyngeal swab for SARS-CoV-2 reverse transcription polymerase chain reaction (RT-PCR) was positive. A respiratory pathogen panel testing with BioFire® Respiratory 2.1 was positive for SARS-CoV-2 and RSV. He was treated with intravenous methylprednisolone with symptoms resolution and improvement in inflammatory markers.

The second case is a 5-year-old boy who presented with septic shock and Kawasaki like illness one month after exposure to COVID-19. He required noninvasive ventilation and two vasoactive agents. He was febrile with conjunctivitis, rashes, cervical lymphadenopathy, and mucosal erythema. His SARS-CoV-2 RT-PCR was negative but Covid-19 antibodies were detected. He responded to intravenous immunoglobulin and methylprednisolone.

Lastly, we report a 12-year-old boy who was diagnosed with COVID-19 but developed fever associated with upper respiratory tract and gastrointestinal symptoms 15 days after the diagnosis. His repeated SARS-CoV-2 RT-PCR 3 weeks from the first diagnosis remained positive and Covid-19 antibodies were detected. His biochemical markers were not suggestive of MIS-C. He received supportive treatment without steroids.

CONCLUSION

COVID-19 can present with a wide spectrum of manifestation in children. A detailed clinical and epidemiological history is important for a timely diagnosis.

CASE REPORT: RECURRENT FAILED EXTUBATION CAUSED BY CRITICAL ILLNESS POLYNEUROPATHY

S L Chuah¹, Y S Chee², L M Li¹, W N S Wan Johan¹, S F Bohari¹

¹University of Malaya, Kuala Lumpur, Malaysia

²University Malaya Medical Centre, Kuala Lumpur, Malaysia

Critical illness polyneuropathy is infrequently reported in critically ill children. It is diagnosed with generalised neuromuscular weakness and respiratory dysfunction after a critical illness, further supported by electrophysiological study showing axonal sensori-motor polyneuropathy.

CASE PRESENTATION

A 6-year-old boy with Japanese encephalitis and Influenza B pneumonia, had recurrent extubation failure associated with poor respiratory function and generalised neuromuscular weakness.

He presented with features of encephalitis and seizure. Subsequently, he required mechanical ventilation on day 3 of admission for deterioration of conscious level. Despite the recovery of conscious level after intensive care treatment, he had persistent generalised neuromuscular weakness and poor respiratory function. He had failed extubation twice before the diagnosis of axonal neuropathy from electrophysiology study. Tracheostomy was inserted on day 40 of mechanical ventilation after the third extubation failure. With intensive rehabilitation, he showed slow improvement for neuromuscular function and weaning of ventilation.

CONCLUSION

Critical illness polyneuropathy with respiratory dysfunction is associated with slow recovery. Tracheostomy is helpful in assisting rehabilitation and weaning of ventilation.

CONGRESS SECRETARIAT

ASMIC 2021

Unit 1.6, Level 1, Enterprise 3B, Technology Park Malaysia

Jalan Inovasi 1, Bukit Jalil, 57000 Kuala Lumpur

Wilayah Persekutuan

Tel: +603 8996 0700, 8996 1700, 8996 2700

Fax: +603 8996 4700

Email: secretariat@msic.org.my

Website: www.msic.org.my