

PACCMAN



NEWSLETTER

2021 Edition Issue 1



Dr Pustika Efar, Harapan Kita Children and Women Hospital, Indonesia

Dr Shinya Miura, Tokyo Women's Medical University, Japan

Dr Olive Lee Pei Ee, Sarawak General Hospital, Malaysia

Dr Louise Ngu, Sarawak General Hospital, Malaysia

Dr Anusha Devi Yogiswaran, Universiti Malaysia Medical Centre,
Malaysia

Dr Yasser Mohammed Kazzaz, King Abdullah Specialized Children's
Hospital, Saudi Arabia

Dr Chow Chu-Tian Cristelle, KK Women's and Children's Hospital,
Singapore

Dr Gene Ong, KK Women's and Children's Hospital, Singapore

Dr Jarin Vaewpanich, Ramathibodi Hospital, Thailand

Dr Chanapai Chaiyakulsil, Thammasat University Hospital, Thailand

In this issue ...

- New members
- PACCMAN publications
- Special Interest Groups
- Studies update



Publications ...



Journal of Pediatric Intensive Care. Published online: 2021-01-19

Changes Adopted in Asian Pediatric Hospitals during the COVID-19 Pandemic: A Report from the Pediatric Acute and Critical Care COVID-19 Registry of Asia

Judith J. M. Wong, Qalab Abbas, Nattachai Anantasit, Naoki Shimizu, Ririe F. Malisie, Hongxing Dang, Feng Xu, Jacqueline S. M. Ong, Pei Chuen Lee, Osamu Saito, Kah Min Pon, Takanari Ikeyama, Muralidharan Jayashree, Rujipat Samransamruajkit, Yibing Cheng, Felix Liauw, Hiroshi Kurosawa, Audrey A. N. Diaz, Chin Seng Gan, Furong Zhang, Jan Hau Lee, Pediatric Acute Critical Care Medicine Asian Network

Pediatr Crit Care Med 2021 Mar 1.

doi: 10.1097/PCC.0000000000002680. Online ahead of print

Pediatric Severe Sepsis and Shock in Three Asian Countries: A Retrospective Study of Outcomes in Nine PICUs

Rujipat Samransamruajkit, Judith Ju-Ming Wong, Chutima Smathakane, Nattachai Anantasit, Kanokkarn Sunkonkit, Jacqueline Ong, Olive Pei Ee Lee, Pei-Chuen Lee, Suwannee Phumeetham, Rehana Sultana, Usa Lapwanich, Jan Hau Lee, Lalida Kongkiattikul, Pediatric Sepsis Asian Collaboration (PEDSAC) Investigators and on behalf of the Pediatric Acute and Critical Care Medicine Asian Network (PACCMAN)

Neurosurgery 2021 Apr 29;nyab157. doi: 10.1093/neuros/nyab157. Online ahead of print.

Early Coagulopathy in Pediatric Traumatic Brain Injury: A Pediatric Acute and Critical Care Medicine Asian Network (PACCMAN) Retrospective Study

Shu-Ling Chong, Gene Yong-Kwang Ong, Charles Qishi Zheng, Hongxing Dang, Meixiu Ming, Maznisah Mahmood, Lawrence Chi Ngong Chan, Soo Lin Chuah, Olive Pei Ee Lee, Suyun Qian, Lijia Fan, Yoshihiko Konoike, Jan Hau Lee

Am J Trop Med Hyg. 2021 Jun 15;tpmd210299.

doi: 10.4269/ajtmh.21-0299. Online ahead of print.

Comparative Analysis of Pediatric COVID-19 Infection in Southeast Asia, South Asia, Japan, and China

Judith Ju Ming Wong, Qalab Abbas, Soo Lin Chuah, Ririe Fachrina Malisie, Kah Min Pon, Tomohiro Katsuta, Hongxing Dang, Pei Chuen Lee, Muralidharan Jayashree, Rehana Sultana, Quratulain Maha, Chin Seng Gan, Naoki Shimizu, Feng Xu, Swee Fong Tang, Luming Shi, Jan Hau Lee, Koh Cheng Thoon, Chee Fu Yung, PACCOVRA Investigators of the PACCMAN Research Group

Announcement ...



PACCMAN Special Interest Group (SIG) Program

At the last PACCMAN group meeting in Apr 2021, the team has decided to form Special Interest Groups (SIGs) to cater for specific research interests. The SIGs will support the Scientific Committee, help review of new study proposals and front collaboration discussion with other networks in the specific area of research interest. The 2 pilot SIGs introduced are the Sepsis/ Septic Shock SIG and the Resuscitation SIG.



Sepsis/Septic Shock SIG Members

Prof Rujipat (SIG Lead)
Dr Chong Shu-Ling (SIG Lead)
Dr Lee Pei Chuen
Dr Ririe F Malisie
Dr Qalab Abbas
Dr Michelle Low
Dr Chuah Soo Lin
Dr Gan Chin Seng
Dr Justin Wang
Dr Chee Yun Shan
Dr Anusha Devi Yogiswaran

Resuscitation SIG Members

Dr Takanari (SIG Lead)
Dr Hwa Jin Cho (SIG Lead)
Dr Lee Pei Chuen
Dr Hiroshi Kurosawa
Dr Ichiro Watanabe
Dr Qian Suyun
Dr Chee Yun Shan (Lead)
Dr Chuah Soo Lin
Dr Gan Chin Seng
Dr Justin Wang
Dr Michelle Low
Dr Anusha Devi Yogiswaran

Study Updates 1 ...



Early coagulopathy in pediatric traumatic brain injury: A Pediatric Acute and Critical Care Medicine Asian Network (PACCMAN) retrospective study

Study lead: Dr Chong Shu Ling, Department of Emergency Medicine,
KK Women's and Children's Hospital



**Published in
Neurosurgery**

Secondary analysis using the retrospective data:

1. Early Post Traumatic Seizures (EPTS) in TBI
 - Submitted manuscript in revision
2. Metabolic Disturbances in TBI
 - Data cleaning and analysis in progress



Study Updates 2 ...



Prospective pTBI cohort: Does 3% hypertonic saline decrease mortality and improve long-term neurological outcomes among children with traumatic brain injury?

Study lead: Dr Chong Shu Ling, Department of Emergency Medicine, KK Women's and Children's Hospital

- Collaboration with LARed group to boost recruitment
- The study is named SALTY (Saline in Asia and Latin-America neuroTrauma in the Young)
- 18 sites from the LARed group

Country	Institution
Colombia	FUCS San Jose, Colombia
Paraguay	Trauma Hospital in Asunción
Colombia	Clinical UROS
Colombia	Hospital General de Medellín
Argentina	Hospital de Niños Sor María Ludovica de
Colombia	Hospital Infantil Los Angeles
Bolivia	Hospital del Niño Manuel Ascencio
Mexico	Hospital Juarez De Mexico
Mexico	Hospital Civil de Guadalajara
Argentina	Hospital Paediatrico Juan Pablo II
Spain	Hospital Universitario de Cruces
Colombia	Fundación Valle del Lili
Mexico	Secretaria de salud hospital Jesús Gilberto Gómez Maza Mexico
Spain	Sanatorio Casa Galicia
Argentina	Hospital de Pediatría Garrahan
Uruguay	CTI de Niños Médica Uruguaya MUCAM
Costa Rica	Hospital Nacional de Niños
Argentina	Hospital de Niños Ricardo Güiterrez
TOTAL	21



PACCMAN Recruitment summary as of 30 June 2021 --

Country	Recruited
China, Beijing (Beijing Children's Hospital)	43
China, Chongqing (Children's Hospital of Chongqing Medical University)	32
Singapore, KK Women's and Children's Hospital	25
Malaysia, KL (University Malay Medical Centre)	21
Pakistan, Karachi (Aga Khan University)	20
China, Shanghai (Children's Hospital of Fudan University)	10
Singapore, National University Hospital	8
Thailand, Bangkok (Ramathibodi Hospital)	4
China, Shenyang (Pediatric department of Shengjing hospital, China Medical University)	3
Malaysia, Sarawak (Sarawak General Hospital)	3
Malaysia, KL (Universiti Kebangsaan Malaysia Medical Centre)	3
Japan, Kobe (Kobe Children's Hospital)	2
Thailand, Bangkok (Chulalongkorn University)	Pending recruitment
Malaysia, KL (Hospital Tunku Azizah Kuala Lumpur)	Pending recruitment
Total	174

Study Updates 3 ...



Paediatric severe sepsis and shock in three Asian countries: A retrospective study of outcomes in nine Paediatric intensive care units

Study lead: Prof Rujipat Samransamruajkit, King Chulalongkorn Memorial Hospital, Thailand



**Published in
Pediatric Critical
Care Medicine**

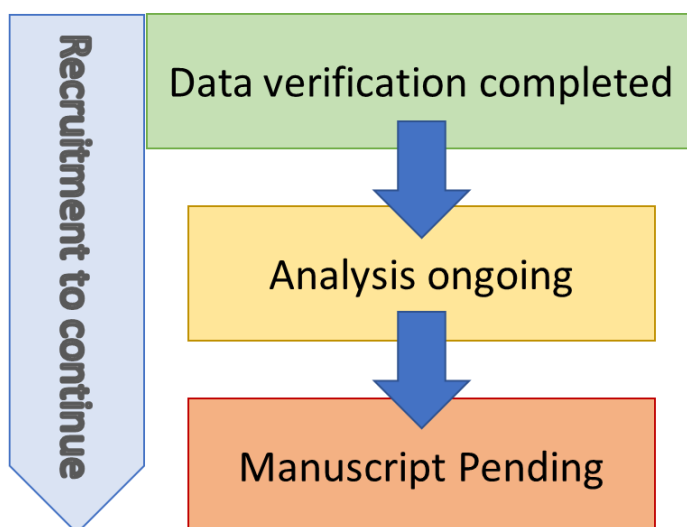


Study Updates 4 ...

Pediatric Acute Respiratory Distress Syndrome: A prospective Multicentre Study in Asia (PARDSProAsia)

Study lead: Dr Judith Wong, KK Women's and Children's Hospital, Singapore

- **Phase 1 Database**



- **Phase 2 LPMV protocol**

Elements	Target	Category of PARDS
Peak/ plateau pressure	$\leq 28-32\text{cm H}_2\text{O}$	All
Pressure support	$\leq \text{PIP}$	All
Delta pressure	Max 16cmH2O	All
PEEP/FiO2 combinations	PEEP/FiO2 table	All
Tidal volume	3-6ml/kg body weight	Moderate & Severe
	$\leq 8\text{ml/kg PBW}$	At risk & Mild
Permissive hypercapnia	pH 7.20-7.30*	Moderate & Severe
Permissive hypoxia	SpO ₂ 92-97%	At risk & Mild
	SpO ₂ 88-92%*	Moderate & Severe

Awaiting more centers to transition.

We Really Need Your Support !!

Centers pending transition to Phase 2

No.	Sites	Phase 1			Phase 2		
		Screened	Enrolled	Entered	Screened	Enrolled	Entered
1	KK Women's and Children's Hospital	247	11	11	942	107	105
2	National University Hospital, Singapore	630	7	7	51	3	0
3	National Hospital of Pediatrics	1254	45	42			
4	Hyogo Prefectural Kobe Children's Hospital	1226	5	5	234	5	0
5	Guangzhou Women and Children's Medical Center	917	20	16			
6	Universiti Kebangsaan Malaysia Medical Centre	138	4	4	32	0	0
7	Sarawak General Hospital	170	29	25			
8	Children's Hospital of Chongqing	3553	96	60	28	2	0
9	Harapan Kita Children and Women hospital	133	18	18			
10	Hong Kong Children's Hospital	400	3	1 (incomplete)			
11	Shengjing Hospital of China Medical University	836	8	8			
12	Sanglah Hospital Denpasar	139	60	22			
13	Sultanah Aminah Hospital	263	16	16			
14	Ramathibodi Hospital	215	20	16			
15	Children's Hospital of Fudan University	1521	10	7			
16	Advanced Pediatrics Centre Post Graduate Institute of Medical Education and Research (PGIMER)	517	11	10			
17	University Malaya Medical Centre	171	24	24	220	11	11
18	Penang General Hospital	252	8	5			
19	Hospital Tunku Azizah (Women and Children's Hospital) Kuala Lumpur	295	11	11			

We Really Need Your Support !!

Study Updates 5 ...



Severe Pneumonia in Children (S-PIC) Study: A Comparative Effectiveness Study of Children with Severe Pneumonia in Asia

Study lead: Dr Lee Jan Hau, Children's Intensive Care Unit, KK Women's and Children's Hospital, Singapore

ABSTRACT: Severe pneumonia is a leading cause of mortality and morbidity in children worldwide. Mortality rates from pediatric severe pneumonia are three times higher in South East Asia compared to the Western hemisphere. The lack of description of epidemiology, current management strategies and outcomes of children with severe pneumonia admitted to pediatric intensive care units (PICUs) in Asia is a barrier to improving paediatric critical care in the region. The lack of a sustainable paediatric critical care network in Asia makes multinational PICU studies challenging.

AIM: To estimate the burden of paediatric patients admitted to Asian PACCMAN PICUs due to severe pneumonia that develop pediatric acute respiratory distress syndrome; To characterize etiologies, identify risk factors associated with morbidity and mortality, and develop prognostic prediction models.



Sites recruitment are still open. Interested members please contact Dr Lee Jan Hau, lee.jan.hau@singhealth.com.sg or Patricia Tay, patricia.tay@scri.cris.sg for more study details.



Recruitment Summary

No.	Site	Country	Total no. of recruitment as reported by site (as of 31 May 2021)	Total no. of data entered in REDcap (as of 30 June 2021)
1	KK Women and Children Hospital	Singapore	28	23
2	National University Hospital	Singapore	5	5
3	National Hospital of Paediatrics	Vietnam	132	69
4	University Malaya Medical Centre	Malaysia	35	40
5	Universiti Kebangsaan Malaysia Medical Centre	Malaysia	26 (as of 31 Mar 2021)	32
6	Children's Hospital of Chongqing Medical University	China	78	84
7	Children's Hospital of Fudan University	China	115	49
8	Shengjing Hospital of China Medical University	China	29	27
9	Post Graduate Institute of Medical Education and Research	India	47	44
10	Aga Khan University Hospital	Pakistan	72 (as of 30 Apr 2021)	81
11	Hong Kong Children's Hospital	Hong Kong	0	0
12	Harapan Kita Children and Women Hospital	Indonesia	0	0
13	King Chulalongkorn Memorial Hospital	Thailand	15 (as of 30 Apr 2021)	15
		Grand Total	582	469

Study Updates 6 ...



Pediatric Acute and Critical Care COVID-19 Registry of Asia (PACCOVRA)

Study lead: Dr Judith Wong, KK Women's and Children's Hospital, Singapore

Introduction

In December 2019, an outbreak of pneumonia of unknown aetiology was first reported in the city of Wuhan, Hubei Province, People's Republic of China. Since then, a novel coronavirus, 2019 novel Coronavirus (2019-nCoV) has emerged as the most likely causative agent. To date, it has evolved into a pandemic involving over a million cases and thousands of deaths have been identified, including a high burden in countries like Italy, Spain, United Kingdom and the United States. We aim to investigate the clinical epidemiology of 2019-novel coronavirus (2019-nCoV) epidemic in Singapore and Asia. A retrospective outbreak study of all suspect cases admitted to hospital from the beginning of the pandemic (Dec 2019) to Dec 2020. Clinical and epidemiological information will be extracted from medical databases for analysis.

Recruitment Status:

No.	Sites	Cases	Controls	Total
1	KK Women's and Children's Hospital	278	416	694
2	St. Marianna University School of Medicine	21	35	56
3	Hospital Canselor Tuanku Muhriz	4	6	10
4	Penang General Hospital	22	30	52
5	University Malaya Medical Centre	236	974	1210
6	Murni Teguh Memorial Hospital	8	18	26
7	Advanced Pediatrics Centre Post Graduate Institute of Medical Education and Research (PGIMER)	56	0	56
8	Aga Khan University Hospital	85	207	292



Publications

THE AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE

official Journal of the American Society of Tropical Medicine and Hygiene

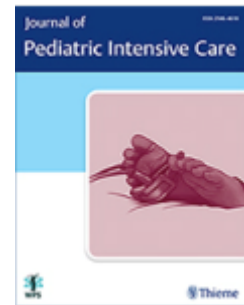


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Comparative Analysis of Pediatric COVID-19 Infection in Southeast Asia, South Asia, Japan, and China

Judith Ju Ming Wong,^{1,2,3*} Qasab Abbas,¹ Soo Lin Chuan,² Bina Fadhina Mafika,⁴ Kai Min Poon,⁵ Tomohiko Kobata,⁶ Hongqing Dang,⁷ Pei Chuan Lee,¹⁰ Mardiahari Jayashree,¹¹ Rihana Sultana,¹² Quratulain Misha,¹³ Chin Song Gan,¹⁴ Naveel Shamin,¹⁵ Feng Xu,¹⁶ Swee Fong Tang,¹⁷ Luning Shi,¹⁸ Jun Hui Lee,^{17,19} Kai Cheong Thiam,^{20,21} Chee Fu Yung,^{2,12,17} and the PACCOM/IA Investigators of the PACCOM Research Group

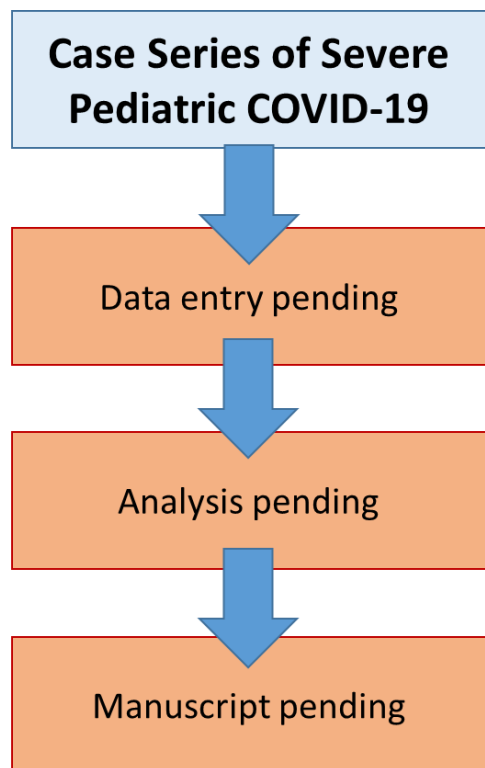
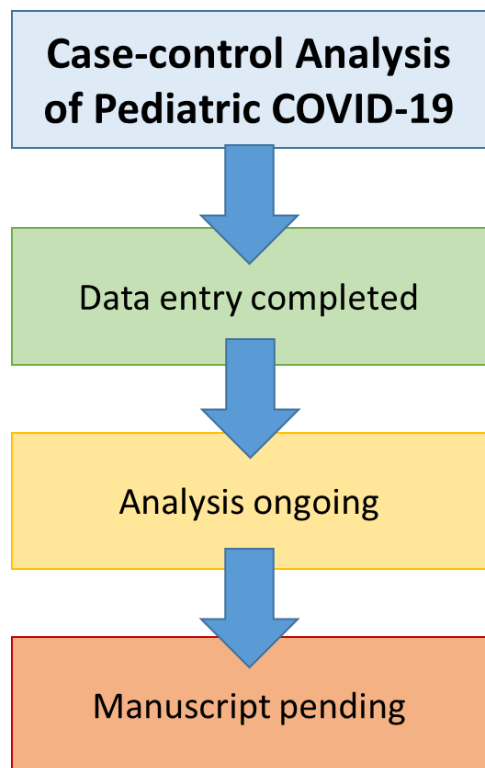
¹Children's Intensive Care Unit, Department of Paediatric Subspecialties, KK Women's and Children's Hospital, Singapore; ²Singapore Health Services, Singapore; ³SingHealth Duke NUS Global Health Institute, Singapore; ⁴Pediatric Critical Care, Mochima Aga Khan University, Karachi, Pakistan; ⁵Department of Paediatrics, Universiti Kebangsaan Malaysia Medical Centre, University of Malaya, Kuala Lumpur, Malaysia; ⁶Sumi Tagma Memorial Hospital, Medan, Indonesia; ⁷Department of Paediatric Intensive Care, Fukuoka Children's Hospital, Fukuoka, Fukuoka, Japan; ⁸Paediatric Intensive Care Unit, Department of Paediatrics, St. Marianne University School of Medicine, Kanagawa Prefecture, Japan; ⁹Critical Care Treatment Centre and Intensive Care Medicine, Diabetic Hospital of Guangdong Medical University, Guangzhou, China; ¹⁰Pediatric Intensive Care Unit, Hospital General de Zonas Altas, Kuala Lumpur, Malaysia; ¹¹Pediatric Intensive Care and Emergency Unit, Alankand Medical Centre, Postgraduate Institute of Medical Education and Research, Chandigarh, India; ¹²Center for Quantitative Medicine, Duke-NUS Medical School, Singapore; ¹³Medical College, Aga Khan University, Karachi, Pakistan; ¹⁴Pediatric Intensive Care Unit, Department of Paediatrics, St. Marianne University School of Medicine, Kanagawa Prefecture, Japan; ¹⁵Singapore Clinical Research Institute, Centre for Clinical Research and Innovation, Singapore; ¹⁶Department of Paediatrics, Department of Paediatric Intensive Care, Children's Hospital, Singapore; ¹⁷Lee Kong Chian School of Medicine, Imperial College Malaysia, Imperial College University, Singapore



Changes Adopted in Asian Pediatric Hospitals during the COVID-19 Pandemic: A Report from the Pediatric Acute and Critical Care COVID-19 Registry of Asia

Judith Ju Ming Wong,^{1,2,3*} Qasab Abbas,⁴ Mardiahari Jayashree,⁵ Naveel Shamin,⁶ Bina Fadhina Mafika,⁷ Hongqing Dang,⁸ Feng Xu,⁹ Quratulain Misha,¹⁰ Pei Chuan Lee,¹¹ Chin Song Gan,¹² Naveel Shamin,¹³ Kai Cheong Thiam,^{14,15} Yiling Zhang,¹⁶ Jun Hui Lee,¹⁷ Feng Xu,¹⁸ and Jun Hui Lee,¹⁷ and the Pediatric Acute Critical Care (PACCOM) Investigators

Upcoming manuscripts



Study updates 7 ...



Delphi Study to Establish Paediatric Critical Care Nursing Research Priorities in Asian Countries

Study lead: Nurse Poh Pei Fen

Background: Studies showed that nursing care improves patient outcomes, however there are gaps between translation of evidence into clinical practice. Such studies had been done in the USA, Australia and European countries. However, due to cultural, social and economic differences between the Western countries and Asia, the findings from the Western studies may not apply in Asia. Thus a need for the study to be done in an Asia context. This study aims to identify priorities in nursing research as defined by paediatric intensive care nurses across Asia

Summary: Recruitment from 8 Asian countries

Country	Centre	Round 1 (n=146)	Round 2 (n=89)	Round 3 (n=95)
China	7	57	42	45 (47%)
India	1	3	2	1 (1%)
Indonesia	3	15	7	4 (4.2%)
Japan	2	20	6	6 (6.3%)
Malaysia	4	24	14	14 (14.7%)
Pakistan	1	1	1	3 (3.2%)
Singapore	2	17	10	13 (13.7%)
Vietnam	1	9	7	9 (9.5%)

Summary: Top PIC nursing research statements via Adelphi method

No	Research Statement	Mean (SD)
1	Recognizing early deterioration of children and implementing effective supportive care	5.58 (0.61)
2	Improving outcomes of cardiopulmonary resuscitation	5.57 (0.66)
3	Implementing and testing nursing care interventions to optimize respiratory outcomes in mechanically ventilated children	5.48 (0.70)
4	Implementing and testing nursing care interventions to reduce healthcare-associated infections	5.47 (0.70)
5	Improving work efficiency of the PICU nurse	5.46 (0.80)
6	Improving the knowledge of safe medication administration	5.46 (0.76)
7	Reducing compassion fatigue, stress, and burnout in PICU nurses	5.45 (0.80)
8	Improving job satisfaction and resilience in PICU nurses	5.43 (0.85)
9	Improving nutritional support in critically ill children	5.42 (0.72)

Manuscript in Preparation

Thank you for your support to the study!

Join Us ...



WELCOME

To join us, please go to:

<https://www.scri.edu.sg/crn/pediatric-acute-critical-care-medicine-asian-network/members/> to download the registration form. Kindly submit the completed form to patricia.tay@scri.cris.edu.sg.

If you have any feedback or would like to feature updates from your country in the PACCMAN newsletter, kindly write to Ms Patricia Tay, PACCMAN secretariat, at patricia.tay@scri.cris.sg.



We welcome anyone who is keen to collaborate and share common goal of developing best practices to improve survival in critically ill children in Asia. If you have any colleagues or friends who are interested, please do refer them to us.