Malaysian Society of Anaesthesiologists &

College of Anaesthesiologists, AMM

ANNUAL SCIENTIFIC CONGRESS 2022

MYANAESTHESIA 2022: FOCUS ABSTRACT BOOK

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1. Messages

Dato' Dr Asmayani Khalib

Deputy Director-General of Health (Medical), Ministry of Health, Malaysia

I would like to thank the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists (CoA), Academy of Medicine of Malaysia for inviting me to officiate the Annual Scientific Congress. I was informed that it has been three years since the last Congress was physically held in Ipoh, Perak in 2019. I am certain we are all grateful to be able to meet in-person after a long hiatus.

The last three years has been, without a doubt, a roller coaster ride of physical and mental emotions. From scrambling to organise our Intensive Care Units, to the vaccination exercises and many other responses throughout the pandemic, it goes without saying that we have learnt plenty along the way. Not the very least, the importance of working together for one common goal which brings me to the theme that is so aptly chosen by the Organising Committee, "MyAnaesthesia 2022: FOCUS-Forging Onwards to a Collaborative Unified Success". My sincere congratulations for setting the tone for what I hope would be the path ahead as we move towards the next phase of our healthcare response.

I am appreciative of the many efforts that have been taken by both the MSA and the CoA in aiding the Ministry of Health to combat the pandemic. My sincere gratitude goes to the many members who have been working tirelessly. In addition to the ongoing clinical work, the MSA and the CoA have also tirelessly conducted many webinars, produced up-to-date guidelines and numerous educational material that allowed for a systematic approach in battling the pandemic. For that, I take this opportunity to convey my admiration, on behalf of the Ministry of Health, to both the MSA Executive Committee and the CoA Council under the leadership of Professor Dr Ina Ismiarti Sharifuddin and Professor Dr Marzida Mansor, respectively.

I trust that the challenges of organising meetings via the online or hybrid method is no longer something that we fret upon. The advantages of hosting meetings via the online portal have allowed the participation of many beyond the confines of the conference halls. Nevertheless, the opportunity to reconnect and share ideas in person is something that many of us have missed over last three years. I hope the delegates will take time to appreciate the efforts of the respective committees for persevering in organising the Congress despite the challenges.

The scope and breadth of the scientific programme provides the backbone to the success of the Congress. The participation of many eminent local and overseas speakers will enable delegates to learn from their expertise and thus, help improve future patient care.

Finally, I would like to thank the biomedical industry for being instrumental in many of our responses during the COVID-19 pandemic. We hope the collaboration with the industry and the clinicians continue to be positively enhanced. I am happy to see many of them physically present on site showcasing the latest products and medications that can be of use to our clinicians.

Professor Dr Ina Ismiarti Shariffuddin

President, Malaysian Society of Anaesthesiologists Organising Chairperson, MSA and CoA Annual Scientific Congress 2022

I am pleased to welcome you to the Annual Scientific Congress 2022 of the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists (CoA), Academy of Medicine of Malaysia. I would like to thank Dato' Dr Asmayani Khalib, Deputy Director-General of Health (Medical), for officiating this congress. MyAnaesthesia 2022 is the first hybrid meeting organised by the MSA and the CoA since Malaysia entered the endemic phase of COVID-19.

The theme of our congress is "MyAnaesthesia 2022: FOCUS - Forging Onwards to a Collaborative Unified Success". We have invited prominent international and local speakers to present, share and discuss scientific questions, achievements, issues and challenges relevant to Anaesthesia and Critical Care. I believe this premier congress offers exciting plenaries, symposia and cutting-edge pre and in-congress workshops. In addition, we hope MyAnaesthesia 2022 provides a good platform for our fraternity to network, meet and interact with distinguished experts, clinicians, researchers, educators and biomedical industry partners to share experiences, foster collaborations, make new friends, and rekindle acquaintances.

I would like to congratulate the Scientific Committee led by Dato' Dr Yong Chow Yen for the excellent academic content planned meticulously to cater to our precious participants' different needs. I would like to thank the Organising Committee and the secretariat for their ideas, dedication, and hard work in ensuring the smooth running of this congress.

My gratitude goes to all the biomedical industries that have continuously given us their support. I would like to express my most profound appreciation to all the faculty who took the time out of their busy schedules to share updates in their fields of expertise. Finally, I thank all of you, our delegates, for participating in this Congress. I wish all of you an engaging and productive conference participation!

Professor Dr Marzida Mansor

President, College of Anaesthesiologists, Academy of Medicine of Malaysia Deputy Organising Chairperson, MSA and CoA Annual Scientific Congress 2022

It is my great pleasure to welcome you to the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists (CoA), Academy of Medicine of Malaysia Annual Scientific Congress 2022 (MyAnaesthesia 2022). After two years of battling the COVID-19 pandemic, many of us are looking forward to a physical MyAnaesthesia event. Hence, we have decided to organise a hybrid Congress to give the participants the choice of virtual or physical attendance, whichever suits them. I would like to thank Dato' Dr Asmayani Khalib, Deputy Director- General of Health Malaysia (Medical), for officiating this event.

This year's theme, "FOCUS: Forging Onwards to a Collaborative Unified Success", is apt because as anaesthesiologists' skill sets become increasingly specialised, collaboration as a practice becomes more important than ever. Collaboration can lead to a unified success when a group of people come together and contribute their expertise for the benefit of a shared objective or mission. It has been shown that organisations that collaborate well are more likely to be financially successful, culturally aligned and have higher engagement rates.

In line with the theme, we have added many topics in the scientific programme focusing on newer possible collaborative efforts such as Perioperative Medicine, Guideline Updates and Sustainability in Anaesthesia. There are many interesting and stimulating plenaries, symposia, problem-based learning sessions and refresher courses to choose from.

Please visit the physical and virtual booths supported by the biomedical industry that feature the latest information available in anaesthesia pharmacotherapy and technology, to participate in the lucky draws and so on. You can also take the opportunity to meet old friends and colleagues physically or virtually at this congress.

I would like to thank the Organising Committee for their hard work and creativity to make this congress a success. My special thanks also to the Scientific Committee led by Dato' Dr Yong Chow Yen, partners from the biomedical industry, the secretariat, the virtual platform provider and, last but not least, to all participants of the Congress.

I wish everyone a successful and enjoyable Congress.

Dato' Dr Yong Chow Yen

Scientific Chairperson MSA and CoA Annual Scientific Congress 2022

Welcome to the 59th Annual Scientific Congress of the Malaysian Society of Anaesthesiologists (MSA) and the College of Anaesthesiologists (CoA), Academy of Medicine of Malaysia. Welcome to Kuala Lumpur.

In October 2021, the Scientific Committee was appointed and entrusted with the job of organising the academic content of this Congress. We were uncertain then whether the COVID-19 pandemic would be over by August 2022 or would we have to isolate ourselves at home again. We certainly hoped that our members and fraternity would return to some normalcy and have a face-to-face Congress and if the situation were to take a bad turn, we could rapidly switch to a virtual format. Thus, we conceptualised a hybrid meeting where our members who are on duty or are unable to travel, for some reasons, the opportunity to attend the congress virtually. Those who registered physically have the flexibility of joining via the virtual platform. Herein lies the philosophy of the MSA and the CoA that knowledge must reach out to our members using all technologies available and accessible as possible.

Nevertheless, it is our sincere wish that delegates who have registered as physical will attend in-person and fill up the conference halls to the brim. We hope you will take this opportunity to enjoy the fraternity comradeship and up-lifting conversations in the physical setting. After two and a half years of gruelling pandemic work, followed by clearing of surgical backlog, we strive to provide everyone a pleasant place to catch up with friends, colleagues, and industry partners.

There are four tracts in the scientific programme. Three tracts are hybrids, covering perioperative medicine, subspecialty anaesthesia, non-anaesthesia technical skills, well-being and professionalism. Physical participants have the option to attend the fourth track which consists of problem-based learning sessions and in-congress workshops. The objective of the physical-only tract is to provide more effective learning opportunities.

There are four pre-congress and three in-congress workshops to meet the delegates' varying interests and needs. Difficult airway, transoesophageal echocardiography, neuroanaesthesia monitoring modalities, erector spinae blocks and ultrasound guided vascular access aim to introduce new knowledge and refresh our skills.

Anaesthesiology trainers and trainees will have dedicated sessions. There are two precongress workshops (*i.e.*, Simulation and Work-based Assessment Trainthe-Trainer workshops), and a Master and Parallel Pathway Trainee session, where trainees and trainers are given updates and the opportunity to interact with the panel.

The members of the Scientific Committee would like to express our sincere gratitude to our speakers, chairpersons and delegates for the overwhelming support. We wish the oral and posters presenters all the best in their presentations. I wish to thank my two able Co-Chairpersons, Associate Professor Dato' Dr Wan Rahiza Wan Mat and Associate Professor Dr Azarinah Izaham and members of the Scientific Committee for their hard work.

With these, we hope to provide a wide comprehensive, inclusive and, most of all, enjoyable programme. It is our aim that knowledge should be made accessible to our members as much as possible.

2. Malaysian Society of Anaesthesiologists

Executive Committee 2021-2022

President Professor Dr Ina Ismiarti Shariffuddin

President-Elect Dato' Dr Yong Chow Yen

Immediate Past President Professor Dr Marzida Mansor

Chairperson Datin Dr V Sivasakthi

Honorary Secretary Dr Gunalan Palari Arumugam

Honorary Treasurer Dato' Dr Seah Keh Seng

Committee Members Associate Professor Dr Azarinah Izaham

Associate Professor Dr Loh Pui San

Dr Mohd Azizan Ghazali Dr Kevin Ng Wei Shan Dr Shahridan Mohd Fathil

Coopted Committee Members Lt Col Dr Mohamad Azlan Ariffin

Associate Professor Dr Wan Mohd Nazaruddin

Wan Hassan

3. College of Anaesthesiologists, AMM

Council 2021-2022

President Professor Dr Marzida Mansor

Vice President Associate Professor Dr Muhammad Maaya

Honorary Secretary Datin Dr Vanitha Sivanaser

Honorary Treasurer Associate Professor Dato' Dr Wan Rahiza Wan

Mat

Council Members Associate Professor Dr Azarinah Izaham

Dr Gunalan Palari Arumugam Dato Dr Jahizah Hassan Professor Dr Rafidah Atan

Coopted Council Members Dr Hasmizy Muhammad

Dato' Dr Yong Chow Yen

4. Organising Committee

Advisor Datin Dr V Sivasakthi

Organising Chairperson Professor Dr Ina Ismiarti Shariffuddin

Deputy Organising Chairperson Professor Dr Marzida Mansor

Scientific Chairperson Dato' Dr Yong Chow Yen

Honorary Secretary Dr Gunalan Palari Arumugam

Honorary Treasurer Dato' Dr Seah Keh Seng

Deputy Scientific Chairpersons Associate Professor Dr Azarinah Izaham

Associate Professor Dato' Dr Wan Rahiza Wan

Mat

Sponsorship & Trade Dr Hasmizy Muhammad

Associate Professor Dr Wan Mohd Nazaruddin

Wan Hassan

Publications Associate Professor Dr Muhammad Maaya

Datin Dr Vanitha Sivanaser

Promotion & Publicity Dato Dr Jahizah Hassan

Dr Shahridan Mohd Fathil

Social Associate Professor Dr Loh Pui San

Dr Mohd Azizan Ghazali

AV / Technical Committee Lt. Col Dr Mohamad Azlan Ariffin

Dr Kevin Ng Wei Shan

5. Scientific Committee

Scientific Chairperson Dato' Dr Yong Chow Yen

Deputy Scientific Chairpersons Associate Professor Dr Azarinah Izaham

Associate Professor Dato' Dr Wan Rahiza

Wan Mat

Airway Anaesthesia Associate Professor Dr Muhammad

Maaya

Cardiac Anaesthesia Dato Dr Jahizah Hassan

Critical Care / Simulation Professor Dr Rafidah Atan

Education in Anaesthesia Associate Professor Dr Wan Mohd

Nazaruddin Wan Hassan

Field Anaesthesia Lt. Col Dr Mohamad Azlan Ariffin

Neuroanaesthesia Datin Dr Vanitha Siyanaser

Obstetric Anaesthesia Dr Mohd Azizan Ghazali

Paediatric Anaesthesia Professor Dr Ina Ismiarti Shariffuddin

Pain Management / Wellbeing Professor Dr Marzida Mansor

Perioperative Medicine Associate Professor Dr Loh Pui San

Dr Kevin Ng Wei Shan

Regional Anaesthesia Dr Shahridan Mohd Fathil

Safety & Quality / Professionalism Dr Gunalan Palari Arumugam

Ultrasound / Thoracic Anaesthesia Dr Hasmizy Muhammad

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DEVELOPMENT AND VALIDATION OF CREATININE-BASED ESTIMATES OF THE GLO-MERULAR FILTRATION RATE EQUATION FROM CHROMIUM EDTA IMAGING IN THE MULTI-RACIAL MALAYSIAN POPULATION

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Background

Glomerular filtration rate (GFR) is a reliable parameter for assessing kidney function. It is estimated from equations such as Cockcroft–Gault (CG), Modification of Diet in Renal Disease (MDRD), and Chronic Kidney Disease- Epidemiology Collaboration (CKD-EPI). However, these equations were derived using Western population demographic data and had different performances when applied to other populations. *Objectives*. We developed a new equation (NE) based on the ⁵¹Cr EDTA measured GFR that can be used explicitly in the Malaysian multiracial population.

Methods

This was a cross-sectional study using the Electronic Medical Record (EMR) of patients who underwent ⁵¹Cr-EDTA imaging at the Nuclear Medicine Centre, University Malaya Medical Centre (UMMC), from 2013 to 2021. This study had obtained approval from the Medical Research Ethics Committee, UMMC.

Results

Total data of 209 patients were recruited in this study. 105 were randomised in the development cohort, while 104 were in the validation cohort. A NE was developed based on data in the development cohort and then tested its performance in the

validation cohort. The result showed that CKD-EPI had the highest correlation to 51 Cr EDTA imaging measured GFR (r-value 0.82), followed by the NE (r-value 0.76). CG had the lowest bias (mean bias of 2.49), followed by the NE (mean bias of 3.52). CKD-EPI had the highest precision in estimating GFR (SD of 22.04ml/min), followed by the NE (SD of 25.05ml/min). CKD-EPI also had the highest accuracy (85.58% in P30 and 100% in P50, followed by MDRD (81.73% in P30 and 96.15% in P50).

Conclusion

The NE was less accurate than CKD-EPI and MDRD equation but generally has a relatively low bias of 3.52 ml/min. The limitation of the small sample size may limit the accuracy of the NE. Future studies with a larger sample size are needed to generate a more robust equation.