



## Desmond Mao Renhao

Head of Department & Senior Consultant, Acute & Emergency Care Department, KTPH

Research/Innovation Interests:

- Prehospital Emergency Care
- Emergency Medicine
- Alcohol
- Frequent Attenders to Emergency Departments

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### Biography

Dr Desmond Mao is an Emergency Physician at Khoo Teck Puat Hospital (KTPH). He serves as Senior Consultant, Unit for Prehospital Emergency Care and Chairman for the Alcohol-Related Frequent Attenders Program under the Ministry of Health. He is a member of the Medical Advisory Committee for the Singapore Civil Defence Force.

Dr Mao is the first doctor to complete the Singapore Prehospital Emergency Care Fellowship in 2016. He won the Singapore Young Investigator Award (Clinical Research) Gold in 2019. In 2020, he was awarded the Public Service Commission Lee Kuan Yew Scholarship.

His research focuses on prehospital emergency care, emergency medicine and health services and has addressed issues such as out-of-hospital cardiac arrests, paramedic termination of resuscitation, 995 dispatch centre studies, ultrasound and COVID-19.

Dr Mao has obtained more than S\$2.4 million in grants, which include studies on alcohol misuse, prehospital and emergency department care. He is the Principal Investigator for a multi-centre, interventional cohort study of alcohol misuse patients who frequent the emergency department. He has published more than 30 articles in international and local journals, such as Resuscitation, Prehospital Emergency Care, Canadian Medical Journal, Lancet Public Health, etc.

### Selected Publications

- Mao RD, Tan EP, Goh HK. An Unusual Cause of Hemorrhagic Shock from a Subcutaneous Hematoma - a Morel-Lavallée lesion. *SMJ*. 2015; 56(4):e62-4.
- Mao RD, Ong ME. Public Access Defibrillation: Improving Accessibility and Outcomes. *British Medical Bulletin*. 2016. doi: 10.1093/bmb/ldw011.
- Mao RD, Ong ME. High-rise Residential Resuscitation- Scaling the Challenge. *Canadian Medical Journal*. 2016. doi: 10.1503/cmaj.151044.

- Mao RD, Ong ME, Bang CL, Salim MDT, Ng YY, Lie DA. Psychological Comfort of Paramedics with Field Death Pronouncement: A National Asian Study to Prepare Paramedics for Field Termination of Resuscitation. *Prehospital Emergency Care Journal*. 2017.
- Mao RD, Zhan AQE, Weng PKL, Leong BSL, Shalini A, Ng M, Siddiqui FJ, Ong MEH. Is your unconscious patient in cardiac arrest? A new protocol for telephonic diagnosis by emergency medical call-takers: A national study. *Resuscitation*. 2020.
- Chien YC, Mao RD, Yang CW, Yang MF, Lee HJ, Lee CH, Fuh FYS, Ong MEH, Ko PCI. Comparison of chest compression quality between transfer sheet and stretcher use for transporting out-of-hospital cardiac arrest patients in a high-rise building – a randomized and open-label cross-over design. *Prehospital Emergency Care Journal*. 2020.
- Leong PWK, Leong BSL, Shalini A, Ng MXR, Ng YY, Ong MEH, Mao RD. Simplified instructional phrasing in dispatcher assisted cardiopulmonary resuscitation – when ‘less is more’. *Singapore Medical Journal*. 2020.
- Lee S, Mao RD, Ng YY, Leong BS, Supasaovapak J, Gaerlan F, Son D, Chia B & Shin S, Lin CH, Rao G, Hara T, Ong MEH. Emergency medical dispatch services across Pan-Asian countries: a web-based survey. *BMC Emergency Medicine*. 2020. doi: 10.1186/s12873-019-0299-1.
- Ong MEH, Mao RD, G Nadarajan. Chapter 5.4 ‘Arrhythmias’. *Emergency Medicine 5<sup>th</sup> Edition*. 2020 [Print].
- Blewer AL, Ho AFW, Shahidah N, White AE, Pek PP, Ng YY, Mao RD, Tiah L, Chia MYC, Leong BSL, Cheah SO, Tham LP, Kua JPH, Shalini A, Truls O, Bosworth HB, Ong MEH. Impact of bystander-focused public health interventions on cardiopulmonary resuscitation and survival: a cohort study. *Lancet Public Health*. 2020.

#### **Notable Research/Innovation Awards & Grants from Past 5 Years**

<b>Name of Awards &amp; Grants</b>	<b>Year Obtained</b>
1 <sup>st</sup> Pre-Hospital Emergency Medical Care Fellowship Program	2015
Singapore Young Investigator Award (Clinical Research) Gold	2019
Alexandra Health Enabling Grant for “National TOR2 Study”	2019
KTPH Research-Investigator-Scientist Enabler Grant	2019
Alexandra Health Enabling Grant for “Alcohol-Related Frequent Attenders to an Emergency Department – A Qualitative Study”	2020
Public Service Commission Lee Kuan Yew Scholarship	2020