

POCUS in Malaysia and the SUCCES Journey

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Abstract

Point-of-care ultrasound (POCUS) has revolutionized bedside diagnosis and clinical decision-making since its inception. In Malaysia, POCUS was introduced in 2004 and was initially practiced in isolation before it gained traction through efforts led by local pioneers and international collaborations, particularly with WINFOCUS. The Society of Critical and Emergency Ultrasound (SUCCES), established in 2012, played a pivotal role in advancing POCUS education, multidisciplinary discussions, and research. The SUCCES has trained thousands of medical practitioners, introduced innovative courses, and fostered international recognition. With the growing demand for advanced POCUS training, fellowship programs and structured syllabi have been established at local universities. Despite challenges in governance and quality assurance, SUCCES continues to lead efforts in credentialing, standardization, and fostering industry partnerships. The resilience of Malaysian pioneers and support from stakeholders promise a bright future for POCUS in Malaysia.

Keywords: Point-of care ultrasound, SUCCES, WINFOCUS, Malaysia

INTRODUCTION

The use of ultrasound in medicine has been described since the 1940s and has been confined to specific disciplines, such as radiology and cardiology. However, advancements in ultrasound technology accelerated its application in the medical field during the 1970s. With technological progress, including transducer refinement and the development of more user-friendly machines, ultrasound usage has expanded to other

specialties. This shift marked the beginning of the point-of-care ultrasound (POCUS) era, where ultrasound began to be used to assess life-threatening conditions at the bedside and guide clinicians in decision-making.

POCUS first gained widespread recognition with the introduction of the trauma protocol known as focused assessment with sonography in trauma (FAST). Coined in the early 1990s, FAST was incorporated into the

Advanced Trauma Life Support (ATLS) guidelines, establishing a precedent for the development of POCUS applications and their integration into daily clinical practice.^{1,2} Since then, the American College of Emergency Physicians (ACEP) published POCUS guidelines in 2001 and expanded their applications to include specific areas such as ocular and deep vein thrombosis in 2009.^{3,4} Additionally, hand-held POCUS devices have been extensively used during military operations in Iraq and have recently been used as triage tools for suspected COVID-19 infections.^{5,6}

WINFOCUS MALAYSIA

POCUS was introduced in the emergency department (ED) in Malaysia in approximately 2004. Back then, it was practiced in isolation. In 2007, a group of enthusiastic emergency physicians and anaesthetist led by Dr. Adi Osman, Datuk Dr. Mahathar Abdul Wahab (Current Director Health General of Malaysia), Dr. Shahrizan Mohd Fathil and Dr. Mohamad Fadhly Yahya, with support from industry, organized POCUS workshops under the umbrella of the World Interactive Network Focused on Critical Ultrasound (WINFOCUS) (Figure 1). During this period, Professor Luca Neri from Italy, the founder and president of WINFOCUS, contributed his invaluable expertise and time to help the Malaysian Group develop effective POCUS education and training programmes. The group was also indebted to Dr Gabriele Via, from Italy, and Dr Ariff Husain, from Saudi Arabia, who played a significant role in facilitating the learning process. Since then, WINFOCUS Malaysia has actively promoted and expanded POCUS training within Malaysia and neighboring Southeast Asian countries.⁷



Figure 1: Founder WINFOCUS Malaysia. From left : Dr Adi Osman, Datuk Dr Mahathar Abdul Wahab, Dr Shahrizan Mohd Fathil, Dr Mohammad Fadhly Yahya

THE BIRTH OF SUCCESS

As the demand for training increased across several specialties dealing with critical patients, we realized the need for a solid foundation. Realizing the importance of local organizations to streamline activities and create cohesion, the Society of Critical and Emergency Ultrasound (SUCCES) was established in 2012. Its main goal was to advance ultrasound education training, serve as a platform for multidisciplinary discussion and foster research in POCUS. Since then, SUCCES has organized multiple courses and trained thousands of medical practitioners, including paramedic ultrasound and primary care ultrasound.

Over the past decade, SUCCES has garnered attention both locally and internationally. The team has contributed to POCUS training, conducted impactful research and is actively involved in world WINFOCUS activities. To date, the SUCCES family has expanded to include more than 100 members from various specialties, such as emergency medicine, anaesthesia, intensive care, pediatric, acute medicine, and primary care.⁸

With the growing demand for advanced POCUS training locally, SUCCES has taken another significant step in advancing POCUS. After several members completed their fellowship training abroad, they contributed back to the country by establishing the Emergency & Critical Care Ultrasound Fellowship Programme. Currently, three fellowship programs are offered in the country, including one in collaboration with WINFOCUS International. A few training sites have been identified for training, including Hospital Raja Permaisuri Bainun Hospital in Ipoh, Universiti Teknologi Mara (UiTM) and Universiti Sains Malaysia (USM).

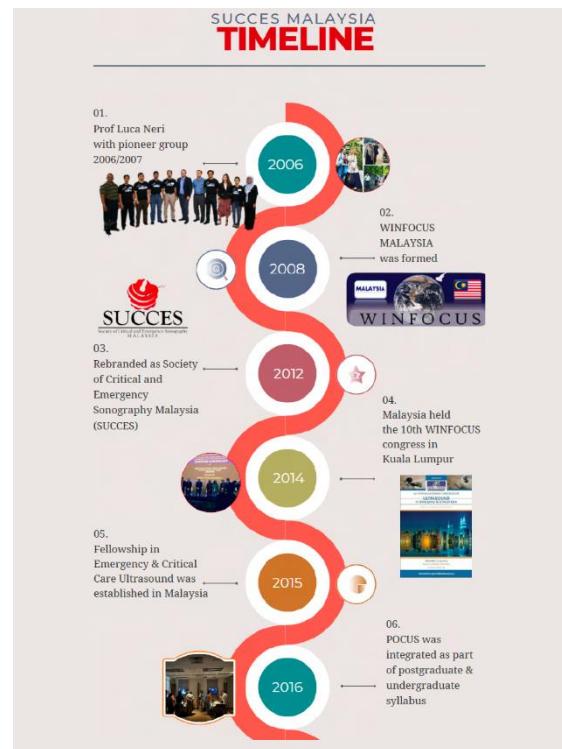


Figure 2: Courtesy image from the SUCCES Bulletin 2023

USM pioneered the integration of the POCUS syllabus into its postgraduate Emergency Medicine training and Year 5 undergraduate program in 2016, setting a national benchmark that inspired adoption across other local universities (Figure 2). Building on this leadership, USM introduced a structured integrated POCUS (i-POCUS) course for Year 4 undergraduates in 2023 as part of the curriculum, thereby strengthening early clinical competency in ultrasound. With strong

and sustained industry collaboration, this educational drive culminated in the establishment of two premier training hubs—the USM-Mindray Sonoschool⁹ and the UiTM-Mindray Sonoschool—milestones that signal a new era in ultrasound education in Malaysia.

CONCLUSION AND FUTURE DIRECTION

Challenges are inevitable as POCUS and SUCCES continue to grow. Currently, there is a gap in governance and quality assurance in the current POCUS landscape. The SUCCES has stepped up to fill this void—developing national guidelines, establishing credentialing standards, and supporting hospitals in privileging processes. By leading these efforts, SUCCES ensures that POCUS is practised safely, effectively, and consistently, prioritizing patient safety while shaping a robust framework for the future of ultrasound practice in Malaysia.

ACKNOWLEDGEMENT

A heartfelt thank you to all the POCUS enthusiasts for their support and commitment. We look forward to a bright future for POCUS in Malaysia. We would also like to thank the ultrasound machine companies for their long-term friendships.

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