**POSTER PRESENTATION**

**Improving Skills in Performing Basic Echocardiography and Focused Assessment With Sonography in Trauma (FAST) Among Medical Officers in Emergency Department**

Muhamed Hadry Ahmad, Ranjini Sivaganabalan

Emergency and Trauma Department, Hospital Shah Alam

**Introduction**

Point-of-care ultrasound is a diagnostic tool that many emergency departments (ED) doctors utilize in their clinical practice to increase the accuracy of their diagnoses, especially during resuscitation of critically ill patients. Over the years, ultrasound has become a crucial component of emergency care and is a valuable technique that improves patient outcomes. Thus, emergency ultrasound training is necessary to guarantee medical officials can continue to be proficient in performing bedside critical care ultrasound and correctly interpreting images.

**Objective**

To determine the efficacy of training sessions by evaluating medical officers’ skills and competency when performing bedside ultrasound.

**Methods**

The participants who were eligible and have fulfilled the inclusion criteria were enrolled in this study. At first, their baseline skills in performing bedside ultrasound were evaluated during their clinical duties at clinical zones. They were required to perform basic echocardiography and FAST scan on a patient that they attended. A set of check list were used to determine their performance ensuring vital steps are performed correctly. This phase is considered as pre-test assessment. Then, they were approached individually or in small groups to undergo bedside training in ultrasound. During this training, important points when performing ultrasound were highlighted to ensure correct techniques are practiced. Following this session, their skills were reevaluated in post- test phase using the same checklist used earlier.

**Results**

Total of 24 participants enrolled in this study. The total mean pre- and post-test score were 19.38 + 5.11 and 31.38 + 3.99, respectively. There was significant improvement in total mean score for ultrasound skills (Echo + FAST) with mean change score of +12.00 (effect size, *d* = 2.76, *p* < 0.001).

**Conclusion**

The ultrasound training is effective in improving skills in performing basic echocardiography and FAST scan among medical officers in ED. Regular training programs can be conducted to enhance clinicians’ diagnostic confidence and ultimately improve patient’s outcome.

**Keywords** : Echo, FAST, Training