

Current practice of prehospital Point-of-care Ultrasound by Emergency Physicians in Austria

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Objectives

The current practice of prehospital Point-of-care Ultrasound (pPOCUS) performed by emergency physicians (EPs) remains insufficiently defined. An online survey aimed to evaluate the present use of pPOCUS among prehospital EPs.

Methods

Based on previous literature an online-survey was designed and reviewed by eight pPOCUS experts. EPs across 12 ambulance services and 6 educational institutions were invited to participate in this online survey between June and October 2023.

Results

A total of 274 EPs (23.4% female) with a median age of 43 (IQR 36-51) years participated in the survey. The median duration of experience as a prehospital EP was 9 (IQR 3-16) years. 57% were specialists for anaesthesia and critical care medicine and worked with an average of 48 (IQR 25-71) hours per month in the prehospital emergency setting.

71% of participants stated that they had received formal in-hospital POCUS training.

While 65% of participants reported regular use of in-hospital POCUS, only 23% indicated regular use in prehospital settings. However, 52% of respondents felt confident in performing POCUS in prehospital scenarios. Participants additionally rated confidence and frequency of using various POCUS techniques (Table 1).

| n=229 | not used prehospital | very rarely | rather rarely | rather often | very often |
|--------------------|----------------------|-------------|---------------|--------------|------------|
| unconfident | 23 (10,0%) | 6 (2,6%) | 2 (0,9%) | 0 | 0 |
| rather unconfident | 21 (9,2%) | 10 (4,4%) | 4 (1,7%) | 6 (2,6%) | 2 (0,9%) |
| neither nor | 8 (3,5%) | 5 (2,2%) | 21 (9,2%) | 3 (1,3%) | 3 (1,3%) |
| rather confident | 6 (2,6%) | 6 (2,6%) | 19 (8,3%) | 19 (8,3%) | 18 (7,9%) |
| rather confident | 8 (3,5%) | 1 (0,4%) | 10 (4,4%) | 8 (3,5%) | 20 (8,7%) |

Table 1: Prehospital echocardiography in unstable patients

With respect to potential barriers, participants identified the lack of training targeting the specific prehospital setting and lack of training supervisors, as well as missing standard operating procedures, standardized documentation, and supervision in practice.

Conclusion

Despite frequent in-hospital use, the application of pPOCUS remains limited. This highlights the need for improved standardized training targeted specifically to the prehospital setting.

Conflict of Interest

The authors have no conflict of interest to declare.