

Implementation of Point-of-Care Ultrasound in Swiss Emergency Departments - What Can Be Improved?

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Master thesis in Medicine

CONTEXT: Point-of-care ultrasound (POCUS) has seen its range of applications expand greatly over the last two decades and is now well supported as a complementary, diagnostic tool, aiding emergency physicians in the early recognition of emergency conditions. Despite a growing body of evidence supporting the core applications of POCUS and constantly evolving recommendations on training methods, research has shown that the implementation of POCUS in clinical practice remains a challenge for many emergency departments. Thus, we sought to explore barriers that prevent point-of care ultrasound from becoming a basic competence of emergency physicians, as well as solution approaches for a successful and safe implementation of its training in Swiss emergency departments.

METHODS 12 emergency physicians, either in attending position or in residency, participated in semi-structured face-to-face interviews exploring their perception of POCUS and experiences with the tool. Participants were recruited in emergency departments of different sizes throughout Switzerland, including both German and French regions, using first theoretical and later selective sampling. Data collection and analysis occurred iteratively, following the constructivist grounded theory methodology.

RESULTS: Five major categories of barriers emerged from the research. A general lack of information about the topic was reported by our participants. Many claimed missing engagement from their departments to include POCUS into clinical practice. The uncertainty about ways to include ultrasound skills into medical training represents a further obstacle. Some departments remain hesitant about including POCUS as a standard diagnostic tool due to opposition from other medical specialties. The delayed implementation of ultrasound particularly concerns the French-region of Switzerland, which is highly due to the limited representation of the SGUM (Swiss Society for Ultrasound in Medicine) in the Romandie. Our research showed that informing physicians more actively about POCUS, as well as encouraging its integration as standard diagnostic tool for all emergency physicians, represent major steps for its implementation in emergency care. Participants revealed the relevance to establish a high-quality training program, for which emergency departments are required to invest in material and human resources. Enhancing the collaboration with other departments and following SGUM guidelines for the implementation of an ultrasound training program were also considered key factors.

CONCLUSION: Our findings suggest that there are still difficulties in the proper implementation of point-of-care ultrasound in diverse emergency units throughout Switzerland. This study provides solution approaches for emergency departments that are confronted to these difficulties, and which seek to implement a high-quality and safe ultrasound training program. As sonography interest continues to grow among future emergency physicians, further research needs to address the effectiveness of

different teaching methods, as well as how to best adapt a training program to the needs of individual emergency care units and safe ultrasound training program. As sonography interest continues to grow among future emergency physicians, further research needs to address the effectiveness of different teaching methods, as well as how to best adapt a training program to the needs of individual emergency care units.

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