

# The CAEP Emergency Ultrasound Curriculum – Objectives and Recommendations for Implementation in Postgraduate Training: Executive Summary

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Emergency Ultrasound (EUS) is now widely considered to be a “skill integral to the practice of emergency medicine (EM).”<sup>1-4</sup> In 2008, the Royal College of Physicians and Surgeons of Canada (RCPSC) included EUS as a core competency in its EM training standards,<sup>5</sup> and in 2010, the College of Family Physicians of Canada (CFPC) introduced EUS as a terminal training objective for CFPC-EM programs.<sup>6</sup> However, there is considerable heterogeneity in the scope of ultrasound training, curricula, and determination of proficiency.<sup>7-9</sup>

With this in mind, the CAEP Emergency Ultrasound Committee (EUC) formed the EUS Curriculum Working Group, consisting of EUS experts and educators from every EM training site in Canada. This group strives to combine best EUS evidence with contemporary curriculum design processes<sup>10,11</sup> to create an implementable, evidence-guided core EUS curriculum for 2018 while also setting targets and recommendations for a second iteration in 2020.

The 35 members of the EUS Curriculum Working Group represent all major training institutions from across the country (see Appendix A). To determine

Content of Learning (objectives and outcomes of training), the working group employed a modified Delphi method<sup>12,13</sup> whereby 80% represented sufficient support for any given EUS application to be included in the core EUS curriculum. Items that received 60-79% support were then re-evaluated by working group members through online discussion and then widespread consultation with the CAEP EUC membership at CAEP16 (Quebec City, June 5, 2016). These applications were then voted on a second time for final consideration.

The following EUS applications met 80% support for inclusion in the core EUS curriculum: FAST, identification of AAA, identification of IUP by transabdominal approach, thoracic ultrasound, Focused Cardiac Ultrasound (FOCUS), and ultrasound-guided vascular access.

The proposed core EUS curriculum objectives lay a strong foundation for quality and growth of EUS in Canadian EM training programs. Similar to other established EUS curricula, this first iteration focuses on emergent and potentially life-saving applications.<sup>14</sup> This aligns well with the concept of Patient Zero,<sup>15</sup>

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where new graduates of either training stream should be skilled in resuscitation. The CAEP EUC has reviewed the proposed objectives of training and its members have voted in favor of their adoption as the foundation for a core EUS curriculum. Furthermore, the CAEP EUC endorses the following recommendations, as proposed by the Curriculum Working Group<sup>16</sup> and members of the CAEP EUC, as a means of moving forward with the core EUS curriculum project.

### CAEP EUC POSITION STATEMENT

- 1) The Core EUS curriculum should include the following skills: FAST, identification of AAA, identification of IUP by transabdominal approach, thoracic ultrasound, Focused Cardiac Ultrasound (FOCUS), and ultrasound-guided vascular access.
- 2) The Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada should explore the adoption of these training objectives into the broader objectives and competency based assessment schemes within their EM residency training programs.
- 3) Residents of CCFP-EM programs should be introduced to EUS prior to their PGY3 year. This could be accomplished by encouraging all successful CFPC EM applicants to undertake EUS training immediately after receiving confirmation of their R3 match.
- 4) Training sites should share their teaching resources with regard to the above curriculum, in order to expedite adoption and minimize duplication. In such a partnership, all work would be attributed to the creators of the learning material (and their respective institutions).
- 5) Training sites should continue to advance patient care and push the boundaries of EUS beyond the core curriculum. This can be accomplished through addition of other EUS applications that are deemed important to the local context.
- 6) Future iterations of this position statement will need to be undertaken frequently to keep pace with the expanding set of EUS skills applicable to emergency care.

**Keywords:** emergency medicine, ultrasound, point of care ultrasound, curriculum, post graduate training, residency

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### SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <https://doi.org/10.1017/cem.2018.35>

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