

Appendix A: Methods

Study design

The modified Delphi process has been used extensively as a method by which iterative questionnaires are used to transform expert opinions into a group consensus. To provide a starting point for the process, an English language literature review was conducted including publicly available institutional standards, national emergency physician POCUS guidelines, national radiology guidelines, commonly used course textbooks for the education of emergency physicians, and journal articles cited in the above standards and guidelines. This information was used to inform a list of potential minimum archiving requirements for the basic POCUS assessments. This study received an ethics review exemption by the Ottawa Health Science Network Research Ethics Board.

Expert recruitment

The CAEP Emergency Ultrasound Committee is a nationally representative group of POCUS experts. It is comprised of 13 emergency physicians and educators elected from the CAEP membership to promote training, competence and research in emergency POCUS in Canada with rural, urban, pediatric and adult emergency medicine representation.⁽¹⁾ Previous Delphi studies on procedural skills have similarly included 10-12 participants to develop checklists for procedural skills.⁽²⁾

Delphi Process

A three-round, modified Delphi study was conducted from September to November 2019. The survey was conducted using SurveyMonkey (San Mateo, California, USA). Only the study coordinator received the results, and during each round, all participants were blinded to the votes and comments of the other participants to mitigate bias. Reminder emails were sent at weekly intervals up to two times until completion.

Consensus was defined a-priori as an 80% agreement threshold for all items on each round of the modified Delphi process. If the consensus for any item was less than 20%, it was removed in subsequent rounds. In the second and third rounds, participants were provided with an anonymized summary of the previous round's results and comments. All thirteen experts participated fully in all three rounds, representing a 100% response rate.