

Emergency department targeted ultrasound: 2006 update

Emergency Department Targeted Ultrasound Interest Group,*
Canadian Association of Emergency Physicians

Introduction

Emergency department targeted ultrasound (EDTU) is a proven aid in the evaluation and treatment of emergency patients with a variety of medical and traumatic conditions.

Immediate access to bedside EDTU enhances patient care and safety by expediting the management of critical illness and by avoiding transfer of potentially unstable patients outside the emergency department for diagnostic testing.¹⁻⁸

Emergency departments should strive to have EDTU immediately available, 24 hours per day, 7 days per week.

CAEP supports the following principles:

- EDTU is a focused, limited, bedside diagnostic tool. EDTU can also be used as a guide for certain invasive procedures.
- Applications for EDTU include, but are not limited to cardiac arrest,⁸⁻¹⁰ pericardial effusion,^{8,11-14} thoracoabdominal trauma,^{2,15-18} ectopic pregnancy,^{3,5-7,19-21} abdominal aortic aneurysm,^{22,23} undifferentiated shock,^{24,25} and guidance for venous access.²⁶
- In emergency departments with EDTU capability, ultrasound machines should be immediately available in the emergency department and possess appropriate functionality and quality for EDTU.
- EDTU training should be incorporated into emergency medicine residency programs of the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada.
- EDTU training for emergency physicians already in practice is strongly encouraged.
- Training guidelines should be developed using both available evidence^{17,18,27-30} and the experience of EDTU experts.
- EDTU training should focus on both cognitive (indication and interpretation) and psychomotor skills.
- Physicians entering an EDTU training path should

possess a sound foundation of knowledge and skill in the provision of emergency medical care.

- EDTU research is strongly encouraged.
- A strong quality improvement program is integral to the safe practice of EDTU, and should be incorporated into the overall emergency department quality improvement program.³¹
- EDTU findings should be documented in writing.
 - Routine image capture is unnecessary for documentation, although image capture may be used for quality improvement.
 - Documentation should only include findings relevant to the specific indication for the scan.
 - Scans that are indeterminate should be so documented and should not be used in clinical decision-making.
- Continuing medical education in EDTU is strongly encouraged.³¹
- It is preferable that at least one local leader supervise the development and maintenance of the EDTU program at their institution.³¹

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*For a complete list of CAEP's Emergency Department Targeted Ultrasound Interest Group members, see Appendix 1.

This Position Statement replaces the CAEP Position Statement on Ultrasonography in the Emergency Department, which was approved by the CAEP Board on Feb. 1, 1999.

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Correspondence to: Dr. Steve Socransky, Assistant Professor of Emergency Medicine, Northern Ontario School of Medicine, Emergency Department, Hôpital régional de Sudbury Regional Hospital, 700 Paris St., Sudbury ON P3E 3B5; committees@caep.ca

**Appendix 1. Members of CAEP's Emergency Department Targeted Ultrasound Interest Group /
Annexe 1. Membres du Groupe d'intérêt de l'ACMU sur l'échographie ciblée à l'urgence**

Ammar Al-Kashmiri, McGill University, Montréal, Que.
Glen Bandiera, University of Toronto, Toronto, Ont.
Jamie Blicker, Cleveland, Ohio
Raoul Daoust, Université de Montréal, Montréal, Que.
Dave Easton, University of Manitoba, Winnipeg, Man.
Jane Findlater, Fredericton, NB
Mike Garner, Université de Montréal, Montréal, Que.
Gavin Greenfield, University of Calgary, Calgary, Alta.
Brendan Hanley, Yellowknife, NWT
Guy Hebert, University of Ottawa, Ottawa, Ont.
Ben Ho, Nanaimo, BC
Dan Howes, Queen's University, Kingston, Ont.
Urbain Ip, Surrey, BC
Kish Lyster, Saskatoon, Sask.
Mark Mensour, NOSM-Laurentian, Huntsville, Ont.
Kieran Moore, Queen's University, Kingston, Ont.
David Ng, Windsor, Ont.

Dave Ohrling, Collingwood, Ont.
Sudhir Pandya, University of Calgary, Calgary, Alta.
Dirk Putter, Meadow Lake, Sask.
Louise Rang, Queen's University, Kingston, Ont.
Tom Rich, University of Calgary, Calgary, Alta.
Peter Ross, Saint John, NB
John Ryan, Prince George, BC
Catherine Seviour, Memorial University of Newfoundland, St. John's, Nfld.
Steve Socransky, NOSM-Laurentian, Sudbury, Ont.
Rob Stuparyk, Oshawa, Ont.
Claude Topping, Université Laval, Québec, Qué.
Scott Wilson, St. John's, Nfld.
Ray Wiss, NOSM-Laurentian, Sudbury, Ont.
Jon Witt, Saskatoon, Sask.
Karen Woolfrey, McMaster University, Hamilton, Ont.
Dave Wood, NOSM-Lakehead, Thunder Bay, Ont.

NOSM = Northern Ontario School of Medicine / École de médecine du Nord de l'Ontario