

Emergency Department Targeted Ultrasound (EDTU) in Rural Communities

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SWOMEN



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Introduction

Emergency Department targeted ultrasound (EDTU) is an efficient examination that enhances diagnostic accuracy and improves health outcomes in acute care patients¹. It can also provide an alternative to transferring potentially unstable patients from settings with limited radiological services². The Canadian Association of Emergency Physicians (CAEP) published a position statement in 2006 encouraging immediate access to emergency department targeted ultrasound 24 hours a day, 7 days a week³. Barriers to advanced imaging care still exist in many rural hospitals. Our study investigated the current availability of EDTU in rural communities and physicians' ability to use this technology.

Methods

A literature review and interviews with rural physicians were conducted in the summer of 2010 to design a questionnaire focusing on EDTU. The survey was then sent electronically or via regular mail in November 2010 to all Ontario physicians self-identified as "rural". Statistical analysis was performed using MedCalc V9.6.0.0

Results

There were 207 rural physicians who responded to the survey (response rate: 28.6%). Nearly three quarters (73%) worked in a rural ED. Almost all (97%) reported having an ultrasound (US) in the hospital. However, only 61% had an US available in the ED. Less than half (44%) knew how to use the US, with most (78%) citing lack of training. Of those using EDTU 52% were using it at least once per shift. The most common reason to use EDTU was to rule out acute aortic aneurysm (51%). Three quarters of rural physicians (75%) agree or strongly agree that EDTU is a skill all rural ED physicians should have.

Table 1: Characteristics of Responding Physicians

Characteristic	Result
Sex	
Female	61/206 (29.5%)
Age (Years)	
Mean (n=205)	49.4 (95% CI 47.9-50.9)
Year of Graduation	
Mean (n=206)	1987
Years in Practice	
Mean (n=206)	20.6 (95% CI 19.0-22.2)
Years in Community	
Mean (n=206)	16.3 (95% CI 14.8-17.9)
Size of Community	
<1,000	10/206 (4.9%)
1,000 - 4,999	75/206 (36.4%)
5,000 - 9,999	58/206 (28.2%)
≥10,000	63/206 (30.6%)
Distance to Referral Centre	
<50 km	68/206 (33.0%)
50 - 99 km	65/206 (31.6%)
100 - 199 km	39/206 (18.9%)
≥200 km	34/206 (16.5%)

Figure 1: Use of EDTU

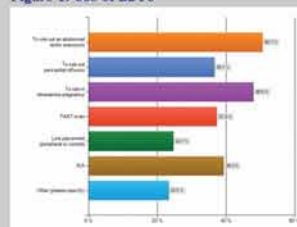


Figure 2: Why Not Use EDTU?

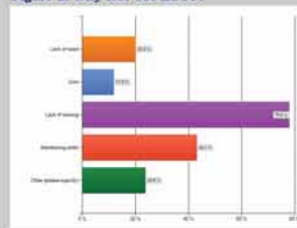


Figure 3: Is EDTU Important Rural ED Skill?

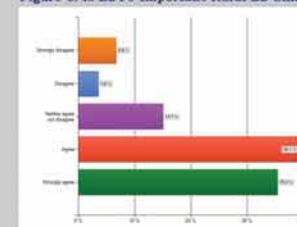
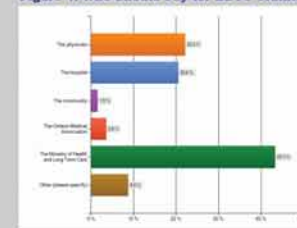


Figure 4: Who Should Pay for EDTU Training?



Conclusions

Patients in many rural Emergency Departments do not have immediate access to Emergency Department targeted ultrasound (EDTU) as advocated by the Canadian Association of Emergency Physicians (CAEP). This gap in care needs to be addressed to ensure that all patients, no matter where they live, have access to this proven imaging modality.

References

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3. Socransky S. Emergency Department Targeted Ultrasound Interest Group. Canadian Association of Emergency Physicians. Emergency department targeted ultrasound: 2006 update. *CJEM* 2006;8(3):170-171.

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