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Chest Ultrasonography as a Replacement for Chest Radiography in the ED Response

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References

1. Zanobetti M, Poggioni C, Pini R. Can chest ultrasonography replace standard chest radiography for evaluation of acute dyspnea in the ED? *Chest*. 2011;139(5):1140-1147.
2. Eibenberger KL, Dock WI, Ammann ME, Dorffner R, Hörmann MF, Grabenwöger F. Quantification of pleural effusions: sonography versus radiography. *Radiology*. 1994; 191(3):681-684.
3. Royal College of Radiologists. Ultrasound training recommendations for medical and surgical specialties. Ref No: BFCR (05)2. Royal College of Radiologists Web site. http://www.rcr.ac.uk/docs/radiology/pdf/ultrasound.pdf. Published 2005. Accessed May 6, 2011.
4. Medford AR. Additional cost benefits of chest physician-operated thoracic ultrasound (TUS) prior to medical thoracoscopy (MT). *Respir Med*. 2010;104(7):1077-1078.
5. MacDuff A, Arnold A, Harvey J; BTS Pleural Disease Guideline Group. Management of spontaneous pneumothorax: British Thoracic Society Pleural Disease Guideline 2010. *Thorax*. 2010;65(suppl 2):ii18-ii31.
6. Medford AR, Entwisle JJ. Indications for thoracic ultrasound in chest medicine: an observational study. *Postgrad Med J*. 2010;86(1011):8-11.

Response

To the Editor:

We thank Dr Medford for his thoughtful comments on our article regarding the use of chest ultrasonography (CUS) in the ED.[1] In his letter, Dr Medford expressed some concerns for the use of CUS before chest radiography as a first-line imaging test.

In general, we would agree with Dr Medford's concerns if we had proposed the use of CUS in general clinical practice, but we limited the use of this diagnostic tool as a first-line screening modality in the ED. As a consequence, we never proposed the replacement of chest radiography with CUS in the clinical management of all chest/lung diseases. Instead, we presented data supporting the advantages of ultrasonography (eg, less time consuming, absence of ionizing radiations) in the initial evaluation of patients presenting in the ED with acute dyspnea.

Due to this limited and focused use of CUS, the training required to achieve clinical competence is probably shorter than the training suggested by Dr Medford. In effect, the American College of Emergency Physicians Emergency Ultrasound Guidelines[2] propose a 1-day introductory course and a minimum 2-week rotation; a minimum of 150 ultrasound examinations must be performed to acquire a sufficient level of competency. This training duration seems to be significantly shorter than the training duration proposed by the Royal College of Radiology.

If, as suggested by the American College of Emergency Physicians, emergency ultrasonography education is incorporated into the core educational program for all emergency medicine residency programs, in a few years all new emergency physicians will have the required competency, and a critical mass of operators will be available in the ED. Obviously, as for all novel developments, a delay is inevitable before a widespread diffusion of the new methodology is realized.

Regarding the costs associated with the use of ultrasonography in the ED, at least in our experience, almost all EDs had ultrasound equipment. However, as suggested by Dr Medford, further studies must be performed to demonstrate the cost/effectiveness of CUS vs chest radiography. Regarding the detection of pneumothorax, several data demonstrated that small pneumothorax can be missed by bedside radiography but detected by CUS and subsequently confirmed by chest CT scan.[3,4] In conclusion, we never stated that chest radiography can be eliminated from the workout of a patient with dypsnea, but our data support the hypothesis that CUS can be a reliable modality for the initial clinical evaluation of these patients in the ED.

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References

1. Zanobetti M, Poggioni C, Pini R. Can chest ultrasonography replace standard chest radiography for evaluation of acute dyspnea in the ED? *Chest*. 2011;139(5):1140-1147.
2. American College of Emergency Physicians. Emergency ultrasound guidelines. *Ann Emerg Med*. 2009;53(4):550-570.
3. Lichtenstein DA, Mezière G, Lascols N, et al. Ultrasound diagnosis of occult pneumothorax. *Crit Care Med*. 2005;33(6): 1231-1238.
4. Volpicelli G. Sonographic diagnosis of pneumothorax. *Intensive Care Med*. 2011;37(2):224-232.

Lung Transplantation in Coal Workers Pneumoconiosis

To the Editor:

We read with great interest the article by Wade et al[1] in a recent issue of *CHEST* (June 2011). The authors reviewed the records of 138 coal miners who were diagnosed with coal workers pneumoconiosis (CWP) and developed evidence of progressive massive fibrosis (PMF). The authors reported that several patients had a rapid progression of the disease (5-12 years) and reported 21 deaths (15%) in the cohort during the study period.

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