## Letters to the Editor

## Emergency Physicians Also Knocking on the Door of Echocardiography



Los médicos de urgencias también llaman a la puerta de la ecocardiografía

To the Editor,

We thank Garcia Fernandez for his excellent editorial on echocardiography performed by noncardiology specialists. We would like to add that emergency physicians are also a group of professionals with a strong interest in improving the quality of our care through the application of noninvasive techniques such as basic clinical echocardiography, particularly for assessing patients with acute heart failure. In 45% of admissions, no prior echocardiographic information is available. Although this lack of information is not associated with a worse prognosis in the emergency room, we believe that it may lead to underuse of basic treatments with a recognized prognostic benefit.2 It would therefore seem to be common sense to introduce basic bedside echocardiography in the assessment of acute heart failure for certain selected patients.3 Thus, in our tertiary university hospital, which serves 1.5 million inhabitants, we have set up a training program in basic echocardiography with the following aims: detection of pericardial fluid, subjective estimation of ventricular function, assessment of presence of segmentary wall movement disorders, and measurement of chamber size. The training comprised a part dedicated to theory (8 hours covering the principles of ultrasound scans and basic echocardiography) and a part to practice (25 to 30 echocardiographic studies under the supervision of cardiologists who work in the emergency room). The degree of satisfaction and acceptance of the technique was excellent; the extent to which the technique was applied in clinical practice was high. The main objective of echocardiography was subjective estimation of left ventricular function in 49%, detection of pericardial fluid in 33%, and assessment of shock and intravascular volume in 18% of cases. We also found that the

learning curve was very steep, with appropriate choice of axis and identification of pericardial fluid in the first 5 echocardiographic studies. In addition, even in this short training period, participants were able to make a subjective assessment of cardiac contractility, segmental contraction defects, and dilation and size of atria and ventricles. All this information may help decide whether a patient with acute heart failure and previously undetected impaired ventricular contraction may benefit from a full work-up in the cardiology department. We should, however, be aware that our basic echocardiographic studies are in no way a substitute for those performed by specialists. We cannot stem the tide.

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## **REFERENCES**

- 1. Garcia Fernandez MA. ¿Es posible entrenar a no cardiólogos para realizar ecocardiografía? Rev Esp Cardiol. 2014;67:168–70.
- Jacob J, Herrero P, Martín-Sanchez FJ, Llorens P, Miró O, Perelló R, et al. Estudio ECO-EAHFE: análisis de los pacientes con ecocardiografía realizada previamente a una visita en urgencias por episodio de insuficiencia cardiaca aguda. Rev Clin Esp. 2011:211:329–37.
- 3. Llorens P, Miró O, Martín Sánchez FJ, Herrero Puente PO, Jacob Rodríguez J, Gil V, et al. Guía para el manejo de la insuficiencia cardiaca aguda en los servicios de urgencias, emergencias y unidades adscritas. Emergencias. 2011;23:119–39.

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Emergency Physicians Also Knocking on the Door of Echocardiography. Response



Los médicos de urgencias también llaman a la puerta de la ecocardiografía. Respuesta

To the Editor,

I appreciate the response by Jacob et al to my editorial published recently in *Revista Española de Cardiología*<sup>1</sup> on echocardiographic training for noncardiologists. Their letter is a clear demonstration of the need to regulate the practice of echocardiography by nonspecalists, as well as the training these noncardiologists should receive and the scope of their echocardiographic studies. This needs to be done as soon as possible to ensure that the training for each particular need does not descend into chaos and that the physician acquires the necessary knowledge to attain competence in an orderly fashion.

As emergency physicians, the authors have identified a problem (the need for echocardiographic training) and have attempted to solve it as best they could with an empirical approach. In the absence of current guidelines, they decided, in agreement with cardiologist colleagues, on the number of hours of training, the scope of training, and the specific skills needed to record an echocardiogram in their specific area. And they did this because there were no regulations or established levels of competence required for their daily practice.

Without doubt, things should be different, and they should not need to take the initiative themselves. Rather, our Society, through its Imaging Working Group and based on experience, should provide training guidance according to the different needs, as I proposed in my editorial. I recommend the autors carefully read an attractive, and in my opinion, fantastic proposal from the influential Italian Society of Echocardiography, which reclassifies the definition of echocardiography according to different levels of training, competency, and use. The society defines 4 types of use of