

Echocardiography: Official Stance of the Spanish Society of Cardiology about operation of portable ultrasound equipments

Ecocardiografía: Posición oficial de la Sociedad Española de Cardiología sobre la utilización de los equipos portátiles de ultrasonido

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Dear Friends:

In recent years, the development of technology and echocardiography equipment is gradually changing clinical practice.

- It is increasingly possible to bring the echocardiogram at the bedside in an increasing number of situations.
- There has been a significant reduction in equipment costs, which are now accessible to ever larger groups of health professionals, who are not necessarily cardiologists.

- A whole new generation of handheld equipment has been created, which offer the possibility to have the basic echocardiographic features at hand, in much the same way we use the stethoscope today.
- There are groups of health professionals, from different specialties such as Internal Medicine or Family and Community Medicine, who are interested in the use of these new technologies to improve their clinical practice.

In recent months, the Cardiac Imaging Section of the Spanish Society of Cardiology has received multiple notifications in which its members report cases of inappropriate use of echocardiography by non-cardiologist doctors who have performed the technique without proper training or equipment, which has obvious implications in their ability to give the best diagnosis and treatment to the patient.

For this reason the Spanish Society of Cardiology

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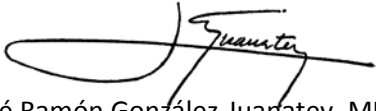
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considers it necessary to notify its official stance on the use of portable ultrasound equipment and to establish criteria for their appropriate use, in order to use the advantages of the new technical developments for the benefit of patients with cardiovascular disease.

- Echocardiography is an essential tool in the evaluation and management of patients with cardiovascular disease because it allows a full assessment of the cardiac anatomy, function and hemodynamics.
- Clinical practice has shown that echocardiography is a highly operator-dependent technique that requires a high level of experience and training for an appropriate acquisition and interpretation of studies that will result in greater clinical benefit for patients.
- The International Societies of Cardiac Imaging and the Spanish Society of Cardiology have spent many years working on the development of the tools that are necessary to achieve excellence in the practice of echocardiography. Clinical practice guidelines have been developed, with the criteria that define the necessary training, the activities that must be performed to maintain adequate competence and the proper way to obtain and analyze images and make reports. Certification programs for professionals and for the accreditation of echocardiography laboratories have also been developed, always with the aim of ensuring the highest quality of the tests performed to the patients.
- Similarly, the Spanish Society of Cardiology has defined and published, together with the relevant societies, the training and accreditation criteria for the performance of echocardiography by Intensive Care and Anesthesia specialists in certain clinical scenarios, always within their field of experience.
- The handheld echocardiography equipment has proven useful as an adjunct to clinical examination.
- They allow a qualitative assessment of signs that may indicate the presence of an underlying cardiac pathology, including:
 - Size and thickness of the left ventricle wall.
 - Left ventricular function.
 - Dilatation of the left atrium.
 - Size and function of the right ventricle.
 - Rough valvular abnormalities.
 - Pericardial effusion
 - Size of the inferior vena cava.
- However, in no case these studies may replace the full regulated study by a cardiologist with proper training and equipment.
- Its use must not mislead the patient, who must be properly informed that the assessment does not amount to a full heart study. For this reason the designation or registration should not use the name “echocardiography”, being proposed the name “echocardiography”.
- The echocardiography should not have a regulated report, but a note in the medical record.
- The echocardiography studies may not have a standardized recording.
- The echocardiography studies involve no additional cost for the patient, just like no fee is charged for auscultation. Nor imply an economic benefit to the doctor who performs it.
- The appropriate use of echocardiography requires, as in the case of other cardiac imaging techniques, proper training and a certification endorsed by the Spanish Society of Cardiology.
- Studies conducted with “portable” equipment, with higher technical performance, by non-cardiologist physicians without a thorough training in echocardiography, should follow the same considerations of the studies with handheld equipment.
- Performing a full echocardiography has important implications in the diagnosis and prognosis of patients; and the person performing the test is responsible for all these implications.
- The performance of a full regulated echocardiography should be done in accordance with the quality criteria established by the Spanish Society of Cardiology in previous documents.
- In order to safeguard the interests of the patient, who must always receive adequate quality scans, the Spanish Society of Cardiology is forced to recommend to their partners and transmit to the Health Authorities involved that they should not accept any “echocardiographic” study performed by non-cardiologists professionals who do not meet the training standards established by the Society.
- The Spanish Society of Cardiology will not give validity, with all health care or legal implications that might arise, to any “echocardiography” done by professionals without proper training, as defined in the Clinical Practice Guidelines of the Society.
- The Spanish Society of Cardiology, through its Cardiac Imaging Section, will establish, in a document

currently under development, the training standards that are appropriate for the performance of exploration with handheld echocardiography equipment by non-cardiologist specialists.

Signed:



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