Ultrasound is one of the most commonly used diagnostic imaging techniques. In the past, like other imaging techniques, ultrasound was performed only by radiologists and even though, with time, the role was extended to radiographers, it still remained within the domain of the radiology department.1 Nowadays, however, its use is being adopted by an ever-increasing variety of professionals.1

Advances in ultrasound technology have resulted not only in better resolution of images but also in the production of smaller equipment for less cost.2 Supported by the fact that ultrasound is non-invasive and produces immediate, real-time results, this has allowed diagnostic ultrasound to infiltrate into many specialties of medicine, changing the ways many diseases are diagnosed and managed.2,4 In fact various authors have labeled ultrasound scanners as the stethoscope of the future, replacing audio by visual data.6 Moreover some authors have also pointed out that sonography has changed the approach to diagnosis of disease from the interpretation of signs and symptoms to interpretation of sonographic signs.2 Evidence shows that the use of ultrasound imaging is shifting from a domain of solely imaging specialists, which comprises radiologists and radiographers, to that of non-imaging physicians who are utilizing this tool to enhance their practice.1,8

With the development of primary care, health reforms and the reassignment of healthcare responsibilities to primary care, the clinics of family doctors are being equipped in a manner that enables them to expand their diagnostic services and cater for conditions which previously were attended to only in secondary care.1,10 There are many reasons which drive physicians to obtain ultrasound skills and invest in equipment. Apart from the restricted access to conventional imaging, the main driving force is the wish to improve patient services by creating a one stop service with a more compliant, less costly care.2,10 The issue of standards for ultrasound is not enough, there is a need for both expertise and experience to be maintained.1 The key issue is that ultrasound must be performed by a competent physician.2 All authors have agreed that the problem is not where to place ultrasound in the health care system, but where to locate it.2–4

The studies evaluating the family doctors’ use of diagnostic ultrasound in general practice are very few and the variables they evaluate are different.9,11,14,16–17 Head-to-head comparison of their findings is therefore not possible. Generally speaking, however, it emerges from the studies that both doctors and patients benefit from office based imaging.1,14 It has been shown that in family practice the four main areas where diagnostic ultrasound can be applied are obstetrics and gynaecology, abdomen, cardiology and small parts.6,11 A number of studies have evaluated use, accuracy and teaching methods of obstetric and gynaecological ultrasound in family practice and in general, positive conclusions in favour of family doctors have been reached.17–21 In a policy paper the American Academy of Family Physicians considers diagnostic ultrasound as a requirement for proper management of women’s health. Abdominal ultrasound in general practice has been shown to be of value in the diagnosis of aortic aneurysms, gall stones, abdominal masses, renal pathology and ascites.23 Referrals to secondary care were also shown to decrease as a result of abdominal ultrasound done by family doctors.23 Other areas benefiting from such use include evaluation of superficial masses, thyroid, prostate, breast and musculoskeletal conditions.2,5,6,24

The issue of suitability of diagnostic ultrasound in the hands of family doctors has been many times a topic for debate.2,25,26 One of the main concerns was the adequacy of training since no legal restrictions to the use of ultrasound by physicians exist.9,25,27 In itself ultrasound is harmless to patients if used appropriately, however apart from the fact that some practitioners do not adhere to safety guidelines, patients may be harmed by misinterpretation of ultrasound images resulting in false positive or false negative evaluations.27 To address this concern, the Royal College of General Practitioners and Royal College of Radiologists, in a joint effort, established a set of standards for ultrasound training for general practitioners. Studies evaluating the competency of family doctors in performing diagnostic ultrasound have shown that training improved performance.21 However although getting training is of utmost importance, this is not enough. There is a general agreement that competency must be maintained.1 The key issue is that ultrasound imaging requires both expertise and experience.8

References