Gynaecological ultrasound in the community

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Introduction
The use of ultrasound technology has revolutionised the practice of medicine in general, and women’s health care in particular. It is now difficult to imagine that a woman with gynaecological symptoms will be managed without ultrasound examination. Clearly, clinicians confronted with a clinical problem can benefit greatly from the diagnostic power of ultrasound; this could be in the community, or in primary or secondary care. To date, in the UK, the use of ultrasound technology seems to be almost exclusive to secondary care (i.e. in hospital ultrasound departments). There are very good reasons why the use of ultrasound in a community set-up might be beneficial for both patients and health care professionals. The Department of Health White Paper published earlier this year highlighted patients’ preference to receive their health care, including diagnostic tests, within the community.

Hospital versus community
It is customary in the UK for imaging procedures to be carried out in a hospital setting, and this was ideal in the early days of ultrasound. It suited all sectors of the community for different reasons; one of these reasons was the way primary care was funded. Ultrasound machines were relatively expensive, and there were few people trained in the use of ultrasound technology. However, with ultrasound now forming an integral part of the clinical examination, it seems illogical for this technology always to be delivered away from the place it is needed (i.e. at the first point of contact with the patient in the community). Consequently, a fundamental change in the existing set-up is probably essential to ensure a more satisfactory care pathway for patients.

Currently a patient will usually be referred to a hospital ultrasound department for a scan following the initial consultation in the community. After a variable waiting time, the woman will have the scan. The report will then be sent back to the referring doctor with whom the patient will need to have a follow-up appointment. Such a protracted process is often time consuming and unsatisfactory. It will usually involve travelling, car parking problems, childcare difficulties and other issues on the patient’s part. All this could be simplified for the patient if the scan could be offered as part of the initial clinical assessment.

Ultrasound as an extension and an alternative to vaginal examination
If we agree that general and regional examination is an essential component of any clinical assessment, then ultrasound should be encouraged as part of that regional examination to provide greater accuracy in our diagnosis of gynaecological problems. The ultrasound examination itself could then be offered in the community provided that trained personnel are available. Both transabdominal and transvaginal scans (TVS) could be used. However, when feasible, TVS is preferred in gynaecology settings.

The debate between ultrasound enthusiasts and clinical traditionalists is an interesting one. The first group will argue that the information gained by the old-fashioned digital vaginal or bimanual examination can be achieved by the use of TVS. Indeed, the information gained is superior to digital examination with less discomfort for the patient. Patients also find the ultrasound examination less invasive, in many cases minimising the unease that patients often experience with intimate examination. In common with many new medical advances, TVS (which was introduced in the 1980s) faced some resistance initially but is now more acceptable to clinicians and patients. Ultrasound manufacturers are racing to develop small, portable scan machines with TVS probes and other facilities; however, with miniaturisation comes a possible trade-off against image quality and resolution.

Benefits of gynaecological ultrasound in the community
Assuming that trained, enthusiastic clinicians such as general practitioners with special interests (GPwSIs), sonographers or nurses are available, ultrasound could – in combination with clinical assessment – be a real problem solver. The need for a hospital referral for ultrasound would be minimised, and as a result the patient’s care pathway will be more satisfactory.

In general practice or community gynaecological services
Ultrasound can resolve immediately many uncertainties in a wide range of gynaecological conditions. Although many cases can be assessed in the community, a few problems will remain where more advanced scanning is required. Table 1 summarises some of the gynaecological conditions for which patients present to their doctor with either heavy vaginal bleeding or pelvic pain (i.e. the majority of patients requiring ultrasound departments). There are very good reasons why ultrasound in the community might have on referral patterns and waiting lists.

In family planning clinics
Work in family planning clinics is varied in nature. Women attend these centres for many reasons and sometimes, perhaps not ideally, they are used as an alternative to GP surgeries. However, the majority of women will attend either a nurse-led clinic for contraception advice/prescriptions or a consultant-led clinic with problems arising from the use of contraception. Some clinics also provide termination of pregnancy service or advice. Table 2 summarises the conditions for which ultrasound could provide more information to assist in clinical management.

Practicalities of providing ultrasound in the community
If community health care providers agree that ultrasound is useful for gynaecological conditions, then identifying personnel who can provide this service is essential. There are different models that could be explored but for all of them training is a crucial element, the importance of which cannot be overemphasised.

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Accommodating a patient for a gynaecology scan during a busy surgery or family planning clinic will have its own practical difficulties. The appointment slots are short, and unless allowance is made for a 20-minute scan then the whole service will grind to a halt. Local reorganisation, with a degree of flexibility, will be needed in order to provide a superior service.

One solution could be to run scan sessions parallel to clinics where the patient can be sent for a scan, with the scan report being reviewed prior to further management. Another approach might be to triage patients before the consultation and decide whether a scan is required. If a scan is needed then it could be organised prior to the consultation, thereby minimising the need for a second consultation in many cases.

A third solution would be to keep the current set-up as it is and to send the patient to a community ultrasound scan service that is conveniently located so as to service a number of general practices.

**Training provision**

Training or retraining issues should be addressed – ideally on a national level – to ensure adequate and regulated training for basic gynaecological scans. Many professional bodies, including the Royal College of Obstetricians and Gynaecologists and the Faculty of Family Planning and Reproductive Health Care, are currently taking steps to achieve this. In addition, interested health professionals can attend theoretical and practical training courses including those run by University College London Hospitals, family planning services such as Wandsworth and some charitable organisations.

A clear pathway needs to be in place on a local basis for when help is needed, with sufficient trained personnel to cover scan provision. A dynamic rotation should be established between the training hospital and community centres. This will ensure adequate training and will provide seamless access to specialist input in complex cases. In an ideal world, a satellite link could be established with the supervising centre. This has been tried in different centres (primarily in obstetrics) using fast telephone line connections such as ISDN or DSL, whereby scan images (either still or real-time) were reviewed and an opinion given over the telephone. This proved to be useful in some cases. More recently, robotic scanning has also been tried, however this technique is still in its infancy and it is likely to remain the remit of obstetrics rather than gynaecology.

**Conclusions**

There will obviously be great benefits to patients if ultrasound can be provided in the community. The challenge will be to establish how best to provide this service. Identifying training objectives, integration with local NHS hospitals, and changes in working practices to provide a superior service are the main areas that need to be considered.

**Editor’s Note**

Interested readers will find details of a relevant training course on pages 141 and 143 of this journal issue and on the Faculty website.

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**References**