The QUEST trial

A multi-centre randomised trial to assess the impact of the type and timing of breast reconstruction on quality of life following mastectomy

Jane Nicholson, Macmillan Clinical Nurse Specialist and QUEST Champion

Breast reconstruction aims to restore shape and improve quality of life for women facing mastectomy. QUEST is the first randomised study internationally to assess the impact of the type and timing of the most commonly offered reconstruction procedures on quality of life. The principle investigator is Dr Zoe Winters, Consultant Senior Lecturer in Breast Surgery, and the trial is funded by Cancer Research UK.

The Autologous Latissimus Dorsi (ALD) and implant assisted Latissimus Dorsi (LDI) are two of the most widely used types of breast reconstruction in the UK. However, there is a lack of good-quality clinical evidence with regard to long-term patient experiences. The fourth annual report of the National Mastectomy and Breast Reconstruction Audit (2011) provides 18 months of follow-up information in a large cohort but non-randomised setting. By contrast, the QUEST trial aims to produce high-quality evidence collected over five years that will guide patients and surgeons in making truly informed decisions regarding reconstruction options and thus improve outcomes for thousands of women with breast cancer each year.

Trial design

QUEST is a multi-centre, randomised, controlled trial involving 15 hospitals in the UK.

QUEST A assesses the impact of the type of breast reconstruction on quality of life (QOL) following mastectomy. It compares immediate ALD with immediate LDI.

QUEST B assesses the impact of the timing of breast reconstruction on QOL following mastectomy. It's for women likely to require post-operative radiotherapy and compares immediate ALD with a two-staged approach that uses an immediate temporary expander implant followed by the LD reconstruction on completion of radiotherapy.

In addition to the clinical and patient reported information on outcomes, patient views will be also be collected on the process of randomised studies of breast reconstructions. This will be collected via questionnaires and interviews from those accepting as well as those declining involvement in the QUEST trial. This will provide very useful information regarding the concept of randomisation and if it is acceptable to this patient group.

Clinical setting

The advantage of this trial is that it can be integrated into routine clinical practice and can be offered to any woman who requires a mastectomy and who is technically suitable for an ALD.

Patients are identified at the multidisciplinary team meeting as potentially eligible as QUEST A or B candidates. Following the surgeon's assessment for suitability, the issues regarding their diagnosis of cancer are discussed together with the various options of immediate reconstruction, including entering the QUEST trial. The patient is given a copy of the Breast Cancer Care booklet, **Breast Reconstruction** and the QUEST information pack containing a trial DVD, but no further discussion takes place on that day. Patients are asked to take this home and return to meet with the breast care nurse (BCN) a few days later. This is when the BCN will discuss all the issues relating to their cancer diagnosis, their options of reconstruction and if the patient wishes to proceed with QUEST.

The QUEST trial has encouraged full discussion regarding options and thus informed consent. Both techniques are explained using photos and if patients want to proceed with QUEST they then meet with the research nurse who will complete all further randomisation documentation. Finally, the surgeon will discuss consent with the patient and explain fully the treatment that they have been allocated. If patients do not wish to proceed with QUEST the usual management options are discussed.

Key to success

A very important aspect of the trial's success is the close working relationship with the research nurses, BCNs and surgeons. Where I work, our experience as a major breast reconstruction unit and in running pre-surgical trials has also helped us to incorporate QUEST into our normal practice.

QUEST is a pivotal trial for all breast care teams, which has the potential to change the way we talk with patients about breast reconstruction in the future. All women undergoing mastectomy should be offered the opportunity of immediate reconstruction if there are no contraindications. The QUEST trial will facilitate the ongoing evolution of techniques to provide high-quality aesthetic results.

The patient perspective: Mairead MacKenzie gives her view on the trial

I first heard about the QUEST trial at the launch meeting and, although I was concerned that a surgical trial could have difficulties in recruitment, I was nonetheless pleased that quality of life after surgery was going to be addressed.

There are two patients on the Trial Management Group and we both feel that we are listened to and that our opinions are valued by the team. It's vital that trial teams have a patient voice and the fact that this is now happening as a matter of course can only help to improve communication between clinician and patient.

The need for the QUEST study and others looking at issues beyond treatment are vital. There's often discussion about what surgery to have and when to have it, but this can be based on clinical and other priorities. Many women may feel that they want to deal with the cancer first and the reconstruction later. Greater emphasis needs to be made on how women feel after treatment. We are now living longer. Going through life with a poor body image or putting up with discomfort or disfigurement should no longer be acceptable.

Expectations of surgery often do not match reality and women need to be prepared. After my reconstruction in 2002 I was never asked how I felt about my appearance or whether or not I was experiencing any discomfort. I was one of those women who just put up with it and it was not until last year that I realised I did not have to and had further surgery to improve the situation.

I hope that the QUEST trial will highlight these issues and ensure that no woman goes down the path of reconstruction surgery without being totally prepared and supported throughout and after the experience.