Guidelines for oncoplastic breast reconstruction

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Breast reconstruction and oncoplastic techniques have been widely adopted in the surgical management of patients with breast cancer. The National Mastectomy and Breast Reconstruction Audit (NMBRA)¹ is the largest prospective audit of breast reconstruction ever carried out. It was designed and implemented by the Clinical Effectiveness Unit at The Royal College of Surgeons of England with input from the Association of Breast Surgery (ABS), the British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS), and the Royal College of Nursing. The NMBRA examined a broad range of clinical and patient reported outcomes in more than 18,000 women. Factors examined included patient information and access to reconstructive services as well as the level of pain, complications, quality of life and wellbeing after surgery.

The patient reported outcomes in the NMBRA highlight the positive effects of breast reconstruction on quality of life and the very high levels of satisfaction with the clinical care provided. The audit did, however, find complication rates, levels of postoperative pain and readmission rates that were much higher than expected. There were also variations in preoperative provision of information, access to services and some clinical outcomes.

The original ABS guidelines² predated the NMBRA. One of the key recommendations of the audit was that new guid-

ance should be written that describes 'best practice' and sets current standards of care. Following this, a multidisciplinary writing group of specialists with expertise in the management of patients undergoing oncoplastic procedures was set up by the ABS and BAPRAS to develop comprehensive new guidelines: *Oncoplastic Breast Reconstruction: Guidelines for Best Practice*.³ A patient representative was involved throughout as a core member of the group. Feedback from a wide range of stakeholders has been incorporated into the document, which enjoys the support of Professor Sir Mike Richards, the National Cancer Director. The guidelines are available on the ABS and BAPRAS websites.

The NMBRA identified more than 80 unique metrics, reflecting previously undisclosed standards of care. These provided a benchmark for the selection and development of 25 new quality criteria, which form the backbone of the new guidelines (Table 1). The quality criteria were selected to be outcome based, measurable and clinically relevant. They set standards that can be used for future audits, within individual units or nationally.

Since oncoplastic breast surgery is a developing area of clinical practice with a limited evidence base, the guidance reflects a combination of peer opinion and the best available evidence informed by peer reviewed publications. External advice was commissioned on pain management from

Table 1 Example quality criteria	
Quality criterion:	Local recurrence rates following oncoplastic breast surgery should be no higher than for breast cancer surgery as a whole
Target:	Local recurrence rates are less than 3% at 5 years
Quality criterion:	Implant loss at 3 months following breast reconstruction is assessed and audited
NMBRA outcome:	Of women having an implant, 9% of immediate breast reconstruction patients and 7% of delayed breast reconstruction patients reported implant loss
Target:	Complications leading to implant loss occur in less than 5% of cases at 3 months

the Royal College of Anaesthetists, and on infection control from the Healthcare Infection Society and the British Society for Antimicrobial Chemotherapy. A wide range of stakeholders with an interest in this area of clinical practice provided comments on the draft document. The guidelines are not designed to be prescriptive or legally binding but should be used to inform decision making when developing a patient management plan. They are designed to complement existing guidelines, including the ABS' *Surgical Guidelines for the Management of Breast Cancer*.⁴ Ultimately, members of the multidisciplinary team remain responsible for the treatment of patients under their care.

There are four key sections in the new guidelines: the outpatient phase, the inpatient phase, clinical requirements and training requirements. The outpatient phase includes referral, assessment, information and decision making. The inpatient phase includes preoperative, intraoperative, post-operative and peridischarge periods. The clinical requirements section defines the essential components of an oncoplastic multidisciplinary team, and the caseload, casemix and staffing levels required to support an oncoplastic unit or an oncoplastic centre. The final section considers training requirements for those with a background in general surgery or plastic surgery and additional opportunities that should be available for professional development.

The guidelines contain comprehensive guidance regarding the variety and type of information that must be provided for patients to inform and support decision making about breast reconstruction. There is also important new guidance on infection control to tackle the worryingly high rates of infection and implant loss reported in the audit. Advice includes screening for methithicillin sensitive *Staphylococcus aureus* as well as for methicillin resistant *S aureus* in high risk patients (which includes patients undergoing implant-based procedures). Furthermore, there is new guidance on the use of laminar flow facilities, alcoholic skin preparation, and double glove and minimal touch techniques. For postoperative management, monitoring charts have been recommended which include a visual analogue scale for pain, a nausea scale, flap and patient monitoring, venous thromboembolism management and physiotherapy input. There is also new advice on preventing pain with multimodal analgesia including paravertebral, intrapleural, infusional and non-steroidal analgesia.

A patient version of the guidelines has been developed in collaboration with Breast Cancer Care and with the input of patient representatives. This aims to inform patients, in an accessible format and lay language, about the care and support they can expect to receive when considering or undergoing breast reconstruction.

Oncoplastic Breast Reconstruction: Guidelines for Best Practice aims to provide all members of the breast multidisciplinary team with guidance on best oncological and oncoplastic practice at each stage of a patient's journey, based on best current evidence. These guidelines reflect the findings of the NMBRA and are designed to provide quality and target standards against which care can be measured and audited, leading to improvements in clinical outcomes and patient experience. It is hoped these guidelines will also benefit professionals and service commissioners in this increasingly sophisticated area of clinical practice.

References

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