ASSOCIATION OF BREAST SURGERY

The ABS Mastectomy Avoidance Toolkit

A Toolkit for Breast Services

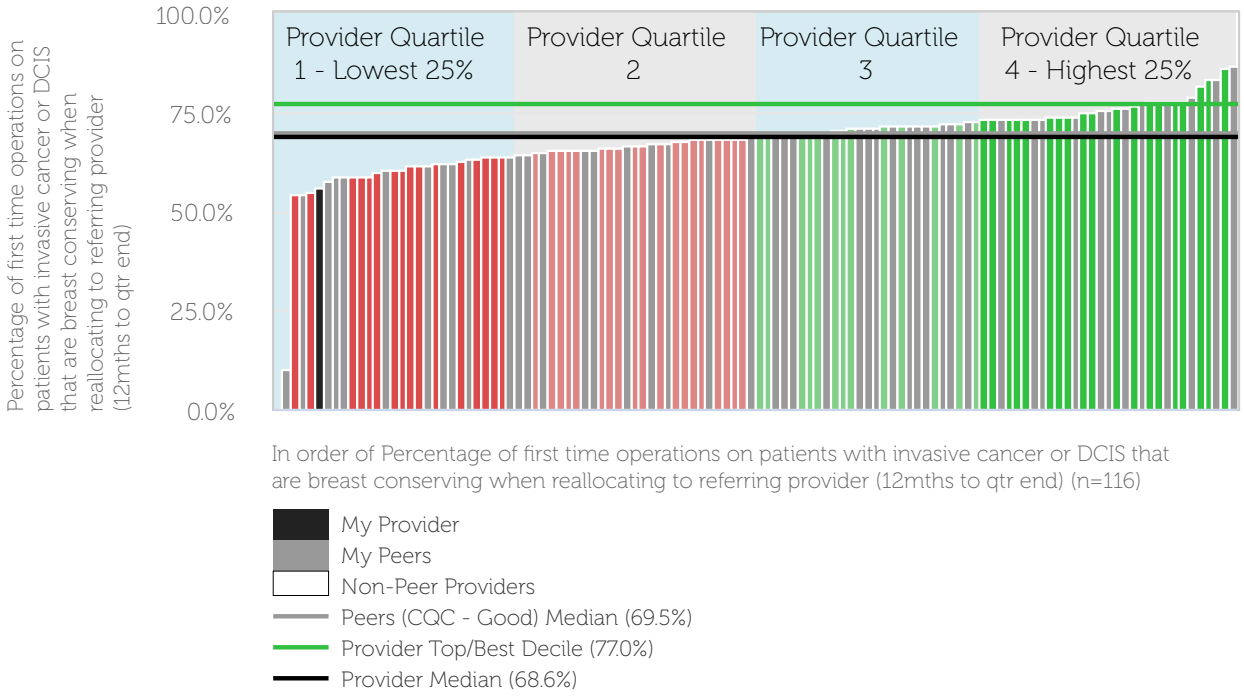
Introduction

This toolkit aims to support multidisciplinary teams (MDTs) in reducing unnecessary mastectomy by sharing evidence, clarifying misconceptions, and outlining practical solutions for common challenges.[1] It is not a set of guidelines, but rather a practical aid to support MDTs in shared decision-making with patients.

Why This Toolkit and Why Now?

Breast conserving surgery, in combination with adjuvant radiotherapy, is associated with equivalent if not better survival outcomes than mastectomy[2] and fewer complications.
However, persistent misconceptions about oncological safety of BCS, and the perceived lower risks of a "simple mastectomy" often lead to mastectomy being offered or chosen when BCS should be an option.
The Getting It Right First Time (GIRFT) Model Health System data identified considerable interhospital variation BCS, with rates ranging between 51-86% (standalone plastic units excluded).

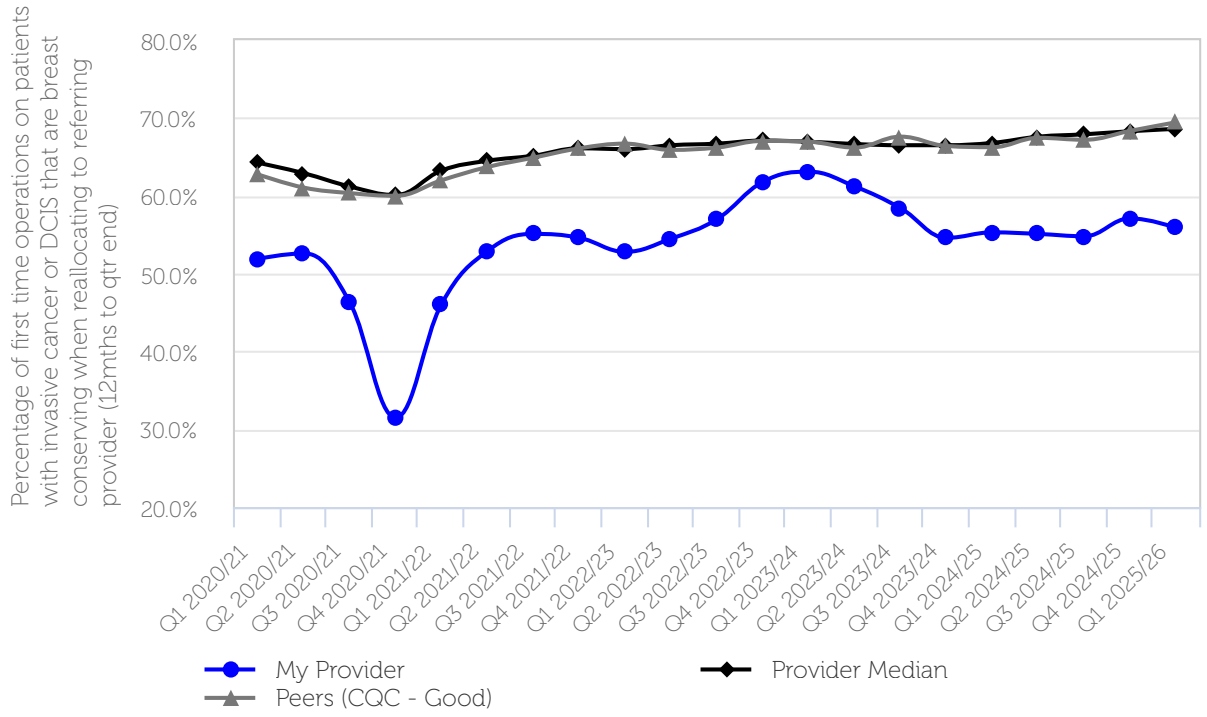
Percentage of first time operations on patients with invasive cancer or DCIS that are breast conserving when reallocating to referring provider (12mths to qtr end), National Distribution



Data source: Model Health System

Interestingly, despite advances in oncoplastic techniques and neo-adjuvant systemic therapies, national mastectomy rates have shown little change over the past decade (Only 2.5% decrease in the last 5 years). The national mastectomy rate remains at approximately 30% with significant regional variation. This stagnation calls for renewed focus and tools to encourage appropriate BCS.

Percentage of first time operations on patients with invasive cancer or DCIS that are breast conserving when reallocating to referring provider (12 months to qtr end)



Data source: Model Health System

There is an ever increasing need to ensure our NHS resources are appropriately used to protect the sustainability of the NHS. As a profession we need to be mindful of the limited resource of free flap autologous breast reconstruction within the NHS and the regional variation in waiting times for all forms of breast reconstruction both immediate and delayed.

Whilst referral for whole breast reconstruction is considered 'normal' there is currently no recognised pathway for complex breast conservation referral. This needs consideration and introduction at system level.

Older patients are less likely to be offered advanced oncoplastic breast conservation and more likely to be offered mastectomy than younger patients with similar disease burden[3]. They are also less likely to undergo whole breast reconstruction.[4]

Mastectomy carries increased morbidity, even when compared to complex breast conservation.[5] It remains less likely to be carried out as a day case. A significant number of older patients can now avoid radiotherapy with BCS and radiotherapy is commonly only 5 days. There is no survival benefit, so what is our rationale for subjecting our older patients to this more frequently?

Benefits of Breast Conservation:

- High day case rates[6,7]
- Fewer surgical complications[8]
- Better cosmetic outcomes
- Better psychological wellbeing
- Better body image
- Avoids the need for a prosthesis (Over 70% of mastectomy patients do not have immediate reconstruction)

The ABS oncoplastic surgery guidelines recommend MDT documentation of rationale for indication for mastectomy for each patient.

Mastectomy avoidance Toolkit

The next table explores the considerations commonly given for mastectomy and offers recommendations for avoiding a mastectomy.

MDT discussion is essential for

- Pre operative imaging assessment
- Use of enhanced breast imaging
- Marking of multiple lesions
- Marking of cancer/nodes pre neoadjuvant therapy
- Monitoring of response to neoadjuvant therapy
- Considering impact of level 2 oncoplastic techniques on ability to accurately plan radiotherapy, marking of tumour bed with clips

Reason for choosing a mastectomy	Solution(s)
Large tumour or high tumour-to-breast volume ratio Historically 4cm of disease was considered an indication to consider a mastectomy. This is dated and not applicable to modern oncoplastic techniques, especially given that breast volume in the population has increased with the increase in obesity rates.	**Oncoplastic volume displacement techniques:** Dermoglandular rotation flaps including Grisotti flap Therapeutic mammaplasty In higher risk patients consider risk limitation e.g. melon-slice approach, or nipple sacrificing techniques **Oncoplastic volume replacement techniques:** LICAP, TDAP, MICAP, AICAP, LD flaps A combination approach from the above Lipo-remodelling **Neoadjuvant therapy for downstaging:** Chemotherapy Endocrine therapy Considerations: Ensure tumour sites are localised prior to commencement of systemic therapy, do not commit a patient to a mastectomy decision due to failure to localise disease early Consider eilgibilty for trials e.g. EndoNET *Evidence does not support removal of the footprint of disease in clinical and radiological improvement.* [9,10]
Multifocal disease	Bracketing and targeted 2-site wide local excisions Case selection based on imaging and pathology and MDT decision making.
Recurrent disease	Careful MDT consideration some patients may still be eligible for re-irradiation or partial breast re-irradiation.
Paget's disease	A central excision is safe if the patient has normal breast imaging including MRI/CEM
Patient preference	Shared decision-making with clear presentation of options and outcomes; visual aids; second opinions Ensuring entire team including CNS are up to date with benefits from both oncological and patient wellbeing perspective of BCS
Contraindications to radiotherapy	Referral for specialist radiotherapy assessment MDT decision making Avoidance of radiotherapy with BCS in eligible patients[11]
Clinician concerns around cosmesis or reoperation	Anthem study demonstrated margin re-excision rate of 14% and very low conversion to mastectomy rate – 3.9% for patients undergoing oncoplastic BCS (Therapeutic mammoplasty / Local perforator flaps).[12]
Age and co-morbidity	Mastectomy has higher medical and surgical postoperative complication rates than BCS. Major medical postoperative complications increase significantly with age. Mastectomy should be used with caution in older patients.
Extensive DCIS	Potential for future change of practice in the surgical management of low and intermediate grade DCIS with the recent publication of COMET trial[13] and the awaited LORIS trial.

Current indications for mastectomy	Notes
Risk Reduction for Gene carriers – BRCA or >30% lifetime risk of breast cancer	Patients age and ongoing living risk should be taken into consideration when discussing the benefit of this surgery
Extensive disease involving a large part of the breast	If the volume to be resected is greater than can be compensated for by: Volume replacement with flaps +/- fat transfer Skin reduction as a mammoplasty The combination of both techniques.
Inflammatory breast cancer	Insufficient evidence currently to support safe BCS

Suggestions for Implementation:
MDT Toolkits Integrate this toolkit into MDT discussions to structure decision-making when mastectomy is proposed.
Audit & Feedback Use local audit data (e.g., from TI) to track mastectomy and BCS rates; identify cases where BCS may have been appropriate.
Training & Upskilling Encourage wider training in oncoplastic techniques across surgical teams including Breast Care Nurses
Patient Decision Aids Develop visual resources to support understanding of BCS vs. mastectomy outcomes.
MDT Peer Review Consider peer-to-peer support between units with different BCS rates to share practices.
Regional MDT with oncoplastic network.
Regional Referral Pathway for breast conserving techniques.
Use media to get the message out to the general population to dispel myths?

Appendix 1: Additional resources to support the toolkit.

Further information including oncoplastic courses, neoadjuvant chemotherapy and other guidance, and current trials can be found on the ABS website:

ABS Trials and Studies

ABS Courses and events

ABS Information HUB

References

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