SURGERY

R **Women with invasive breast cancer who are undergoing breast surgery should be offered the choice of either breast conservation surgery or mastectomy.**

✓ The choice of surgery must be tailored to the individual patient, who should be fully informed of the options and made aware that breast irradiation is required following conservation, and that further surgery may be required if the margins are not clear of tumour.

R **In patients undergoing breast conservation surgery the radial tumour margins must be clear** (≥1 mm).

Women with DCIS who are undergoing breast surgery should be offered the choice of breast conservation surgery or mastectomy.

In women with DCIS undergoing conservation surgery the radial margins must be clear (≥1 mm).

Patients with larger tumours may be considered for oncoplastic surgery instead of mastectomy.

✓ Patients with a family history of breast cancer or other cancer types should be referred to the local genetics service for a risk assessment for cancer arising in the contralateral breast, according to local guidelines.

Management of the axilla

R **All patients with invasive breast cancer who are operable should have axillary surgery.**

If there is proven axillary lymph node disease preoperatively axillary lymph node clearance should be undertaken; if there is no proven disease the optimal axillary procedure is a sentinel lymph node biopsy (or if not available axillary node sample is an alternative).

If the sentinel lymph node biopsy contains tumour, further treatment to the axilla, either axillary lymph node dissection or radiotherapy, should be given. Patients undergoing breast conservation surgery and radiotherapy for T1 or T2 and clinically node-negative breast cancer and who have one or two positive nodes at sentinel lymph node biopsy may be considered for no further treatment to the axilla.

RADIOTHERAPY

R **Postoperative external beam radiotherapy to the conserved breast should be considered for all patients undergoing conservation surgery for early breast cancer.**

Shorter fractionation schedules (eg 4,005 cGy in 15 fractions over three weeks) **should be considered in early breast cancer.**

All patients with ductal carcinoma in situ should be considered for breast radiotherapy following breast conservation surgery.

Radiotherapy boost

R **Radiotherapy boost is recommended in all patients aged 50 years or under at diagnosis.**

Radiotherapy boost should be considered in patients over 50 years at diagnosis, especially those with high-grade cancer.

Post-mastectomy radiotherapy

R **Post-mastectomy radiotherapy should be considered in patients with lymph node-positive breast cancer if they have high risk of recurrence** (≥4 positive lymph nodes or T3/4 tumours).

Post-mastectomy radiotherapy may be considered in patients with intermediate risk of recurrence (high-risk node-negative tumours or one to three positive axillary lymph nodes).

ADJUVANT SYSTEMIC THERAPY

Adjuvant chemotherapy

R **Adjuvant chemotherapy should be considered for all patients with breast cancer where benefit outweighs risk.**

Higher dose anthracycline-based chemotherapy (ie six cycles of FAC or FEC or equivalent) **is recommended rather than six cycles of CMF or four cycles of AC.**

Adjuvant anthracycline-taxane combination chemotherapy should be considered for all patients with breast cancer where the additional benefit outweighs risk.

Primary prophylaxis with granulocyte colony stimulating factors should be considered where the risk of febrile neutropenia exceeds 20%.

Adjuvant trastuzumab should be considered in all patients with HER-2 positive breast cancer who receive adjuvant chemotherapy.

Adjuvant trastuzumab should not be given concurrently with anthracyclines but may be given either concurrently with taxane-based regimens or sequentially.

Cardiac function should be monitored in patients being treated with anthracyclines and/or trastuzumab.

Trastuzumab should be used with caution in patients with significant cardiac comorbidity. The benefits of adjuvant chemotherapy with or without trastuzumab may be outweighed by the potential harms in these patients, and treatment should only be recommended after careful consideration.

Adjuvant endocrine therapy

R **Pre-menopausal women with ER positive invasive breast cancer should be treated with tamoxifen for at least five years, to a total of ten years, unless there are contraindications or side effects.**

Postmenopausal women with ER positive early breast cancer should be considered for treatment with aromatase inhibitors as an alternative to tamoxifen, either:

- **as an upfront aromatase inhibitor for five years, or**
- **by switching to an aromatase inhibitor after two to three years of tamoxifen for a total of five years.**

Patients who are postmenopausal and have completed five years of tamoxifen may be considered for extended (five years) **treatment with letrozole.**

✓ The choice and sequencing of specific adjuvant endocrine therapy should be agreed following consideration of benefits and side effects for each treatment.

ADJUVANT SYSTEMIC THERAPY

Bisphosphonates

R **Patients with early invasive breast cancer should have a baseline dual energy X-ray absorptiometry** (DEXA) **scan to assess bone mineral density if they:**

- **are starting adjuvant aromatase inhibitors**
- **have treatment-induced menopause**
- **are starting ovarian suppression therapy.**

A DEXA scan is not routinely needed in those who are receiving tamoxifen alone, regardless of pre-treatment menopausal status.

Offer bisphosphonates to patients identified by algorithms 1 and 2 *(see Annexes 3 and 4 of the guideline).*

NEOADJUVANT SYSTEMIC THERAPY

Neoadjuvant chemotherapy

R **Neoadjuvant chemotherapy should be considered for all patients with breast cancer whose disease is either:**

- **inoperable** (locally advanced or inflammatory) **but localised to the breast/locoregional lymph node groups, or**
- **the only surgical option is mastectomy and downstaging might offer the patient the opportunity for breast conservation.**

Anthracycline-taxane-based chemotherapy combinations should be considered for all patients receiving neoadjuvant chemotherapy.

Patients with HER-2 positive breast cancer, receiving neoadjuvant chemotherapy, should receive trastuzumab, either as adjuvant treatment or with non-anthracycline-based neoadjuvant chemotherapy.

Cardiac function should be monitored in patients being treated with anthracyclines and/or trastuzumab.

Trastuzumab should be used with caution in patients with significant cardiac comorbidity. The benefits of adjuvant chemotherapy with or without trastuzumab may be outweighed by the potential harms in these patients, and treatment should only be recommended after careful consideration.

Neoadjuvant endocrine therapy

R **Aromatase inhibitor is recommended for ER positive postmenopausal women receiving neoadjuvant endocrine therapy.**

SOURCES OF FURTHER INFORMATION

Breast Cancer Care
169 Elderslie Street, Glasgow G3 7JR
Helpline: 0808 800 6000 • Tel: 0845 077 1892
www.breastcancercare.org.uk • Email: sco@breastcancercare.org.uk

Breakthrough Breast Cancer
38 Thistle Street, Edinburgh EH2 1EN
Tel: 0131 226 0761
www.breakthrough.org.uk/scotland • Email: info@breakthrough.org.uk

Calman Cancer Support Centre
Cancer Support Scotland, Gartnavel Hospital Complex
1053 Great Western Road, Glasgow G12 OYN
Freephone: 0800 652 4531 • Tel: 0141 337 8199
www.cancersupportscotland.org

Cancer Research UK
PO Box 123, 61 Lincoln's Inn Fields, London WC2A 3PX
Tel: 020 7242 0200 • www.cancerresearchuk.org

CancerHelp UK
Tel: 0800 800 4040
www.cancerhelp.org.uk • www.cancerresearchuk.org/cancer-help

CLAN Cancer Support
120 Westburn Road, Aberdeen AB25 2QA
Tel: 01224 647000
www.clanhouse.org • Email: enquiries@clanhouse.org

Macmillan Cancer Support (Scotland)
132 Rose Street, Edinburgh EH2 3JD
Tel: 0808 808 00 00
www.macmillan.org.uk • Email: southscotland@macmillan.org.uk

Maggie's Centres Scotland
www.maggiescentres.org • Email: enquiries@maggiescentres.org

Marie Curie Cancer Care (Scotland)
14 Links Place, Edinburgh EH6 7EB
Tel: 0800 716 146 • www.mariecurie.org.uk

This Quick Reference Guide provides a summary of the main recommendations in **SIGN 134 Treatment of primary breast cancer.**

In this guideline SIGN is piloting new methodology, based on the principles of Grading of Recommendations Assessment, Development and Evaluation (GRADE). Further details are available at **www.sign.ac.uk/pdf/gradeprincipals.pdf.**

The most apparent difference to other SIGN guidelines is the absence of grades of recommendation. The wording of the recommendation reflects how strongly theguideline development group believes following the recommendation will achieve the expected benefits. Recommendations are denoted by an **R**. Good practice points on the clinical experience of the guideline development group are denoted by a ✓.

Details of the evidence supporting these recommendations can be found in the full guideline, available on the SIGN website: www.sign.ac.uk.

This Quick Reference Guide is also available as part of the SIGN Guidelines app.

Available on the App Store

Available from Android Market

Healthcare Improvement Scotland

SIGN 1993-2013

SIGN 134 • Treatment of primary breast cancer

Quick Reference Guide *September 2013*

Evidence