Benign Breast conditions when to refer...
update for 2015/6

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The Royal Marsden

The Referral Process

• Patient presents in surgery with a breast symptom
• Do the symptoms suggest a potential breast cancer diagnosis?
• Does the patient fulfil the criteria for referral to a breast clinic for further assessment?
  – OR
• Can the patients symptoms be managed within the primary care setting?
  • For example muscular/skeletal pain, eczema, long standing breast asymmetry etc.
The Royal Marsden

The Referral Process

The Two-Week Rule (TWR)

• A full time GP is likely to diagnose approximately 1 -2 people with breast cancer every year.

• In 2007 the Cancer Reform Strategy required that all breast referrals should be seen within 2 weeks and we are held to meeting this target in 93% of patients.

• Over the past three financial years the breast unit at The Royal Marsden has seen 16.8% increase in the number of GP referrals but the number of patients with cancer remains relatively constant.
Example 1 - Best Practice

79 year old - Right breast pain

**PHx** No history of breast disease – no recent mammogram

**Para** 0

**Social Hx** carer for husband, driver, fully mobile

**PMH** Hysterectomy, 6mths HRT use, Hx of OCP

No **Fx** of breast or ovarian ca.

**Co-morbidity** - Arthritis, taking Vit D and ADCAL
Example 1 cont.

GP referral – 2 month hx right breast pain. GP reported thickening of tissue in area of pain, UOQ/Axillary tail.

Patient describes pain – focal area ‘like an insect bite’ 2 month history.

**Findings:** o/e thickening rt axillary tail no discrete mass P2. Mammogram and U/S small suspicious lesion M5 U5 within region of pain. (6 x 4 x 5mm)

Histology – Grade 3 IDC (12mm) node negative
Example 2 - mastalgia

25 year old referred with 2 – 3 year history of bilateral breast pain – worse pre-menses
No associated breast symptoms
Para 1, OCP, No Co-morbidities, No other medications
Overweight and a smoker
No Family Hx of breast or ovarian cancer
1/12 EPO – no benefit
Example 2 cont.

- O/E red marks from bra which was too small / tight
- No focal area of pain but generally following bra line
- No masses or areas of concern in either breast or axilla
- Some pain across costal cartilages and chest wall
- No indication for any investigations
- Patient reassured and given information on getting a good fitting bra and managing breast pain.
Example 3 - nipple changes...

- 21 year old bilateral nipple rash
- No masses
- Bilateral breast pain
- PMH eczema (further patches over arms)
- No risk factors
Contents

1. TRM breast unit and CQUIN audit
2. 2015 NICE guidelines
3. Mastalgia – diagnosis and management
4. Assessing family history
Breast REFERRAL AUDIT
- April 2011-March 2014 (3 year audit)

- 16.8% increase in referrals
- No increase in cancer diagnoses

Contributing events:

May 2013 Angelina Jolie – bilateral mastectomy
March 2014 “Be Clear on Breast Cancer” (CR-UK)
Breast REFERRAL AUDIT - April 2011-March 2014 (3 year audit)

Breast Symptomatic

<table>
<thead>
<tr>
<th>Year</th>
<th>Benign</th>
<th>Malign</th>
<th>Not Seen</th>
</tr>
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<tbody>
<tr>
<td>2011</td>
<td>1896</td>
<td>283</td>
<td>49</td>
</tr>
<tr>
<td>2012</td>
<td>2098</td>
<td>279</td>
<td>53</td>
</tr>
<tr>
<td>2013</td>
<td>2573</td>
<td>314</td>
<td>65</td>
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</table>
Breast REFERRAL AUDIT - April 2011-March 2014 (3 year audit)
Breast REFERRAL CQUIN AUDIT (April 2014 only)

The graph shows the number of patients according to referral symptom(s) for a breast referral audit.

- **Lump, discharge, pain,** 1 patient
- **Lump, discharge,** 2 patients
- **Discharge, pain, other,** 8 patients
- **Lump, other,** 4 patients
- **Lump, pain, other,** 2 patients
- **Lump + pain,** 104 patients
- **Other,** 31 patients
- **Discharge,** 3 patients
- **Pain,** 82 patients
- **Lump,** 187 patients

The x-axis represents the number of patients, ranging from 0 to 200.
Breast REFERRAL CQUIN AUDIT (April 2014 only) percentage by age referred for pain

![Bar chart showing percentage by age for pain referrals](chart.png)
Breast REFERRAL CQUIN AUDIT (April 2014 only)

- **Diagnosis**
  - 52% of referrals resulted in a normal assessment
  - 41% of referrals were benign abnormality
  - 6% new diagnosis of cancer
Breast REFERRAL CQUIN AUDIT (April 2014 only) percentage by age
Positive Predictive Value for a SINGLE symptom

– ranged from 0% (for an 'irregularly shaped discrete breast lump', a 'breast lump with a spongy texture', nipple discharge, nipple eczema, nipple retraction, breast abscess, 'other breast symptom') to 48% (for breast lump in women aged 70+ years; 5 studies, n = 24269)

Positive Predictive Value of symptom PAIRS

– ranged from 0% (for breast lumpiness with 'skin or nipple change' or breast pain, and for breast pain with 'skin or nipple change') to 100% (for breast mass and 'skin or nipple change'; 2 studies, n = 21239)

but these extreme PPVs based on small patient/episode numbers.
Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for breast cancer if:

– they are aged 30 and over and have an unexplained breast lump (with or without pain)
Suspected Cancer NICE 2015 guidelines

Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for breast cancer if:

–they are aged 50 and over with any of the following symptoms in 1 nipple only:

• discharge

• retraction

• other changes of concern (eg Paget’s)
CONSIDER referring people using a suspected cancer pathway referral (for an appointment within 2 weeks) for breast cancer if:

- With skin changes that suggest breast cancer OR

- Aged 30 and over with an unexplained lump in the axilla

Consider non-urgent referral in people aged <30 with an unexplained breast lump (+/- pain)
Breast Pain - Conclusion

- Exclude MALIGNANCY
  - With histological confirmation when possible
- Reassure
- Reassure
- Reassure
- Rare, refractory cases....medical / surgical Rx
Triple Assessment

Clinical

Correlation

Imaging Pathology
Benign Breast disorders...

- Classification
  - Risk-based

- Problem (symptom)-based
  - Lump
  - Pain
  - Nipple discharge / related
  - Inflammation
### Table 1. Classification of Benign Breast Lesions on Histologic Examination, According to the Relative Risk of Breast Cancer.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Proliferation</th>
<th>Histologic Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>No increase</td>
<td>Minimal</td>
<td>Fibrocystic changes (within the normal range): cysts and ductal ectasia (72%), mild hyperplasia (40%), nonsclerosing adenosis (22%), and periductal fibrosis (16%)*; simple fibroadenoma (15–23%†); and miscellaneous (lobular hyperplasia, juvenile hypertrophy, and stromal hyperplasia)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benign tumors: hamartoma, lipoma, phyllodes tumor,‡ solitary papilloma, neurofibroma, giant adenoma, and adenomyoepithelioma</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Traumatic lesions: hematoma, fat necrosis, and lesions caused by penetration by a foreign body</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infections: granuloma and mastitis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sarcoidosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metaplasia: squamous and apocrine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diabetic mastopathy</td>
</tr>
<tr>
<td>Small increase</td>
<td>Proliferative without atypia</td>
<td>Usual ductal hyperplasia, complex fibroadenoma (containing cysts &gt;3 mm in diameter, sclerosing adenosis, epithelial calcifications, or papillary apocrine changes), papilloma or papillomatosis, radial scar, and blunt duct adenosis</td>
</tr>
<tr>
<td>(relative risk, 1.5–2.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate increase</td>
<td>Proliferative with atypia</td>
<td>Atypical ductal hyperplasia and atypical lobular hyperplasia</td>
</tr>
<tr>
<td>(relative risk, &gt;2.0)</td>
<td></td>
<td></td>
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</tbody>
</table>

* Percentages indicate the percentage of breasts examined at autopsy in which the lesion was found. Data are from Sandison.11
† Data are from Goehring and Morabia.8
‡ Most phyllodes tumors are considered to be benign fibroepithelial tumors, but some have malignant clinical and histologic features.
Case 1 Breast pain

- 47 year old G5P3
- Pain Left breast
  - Duration 4 months
  - Pattern radiates from LOQ-> axilla
  - Severity - improving
  - O/E point tenderness
Breast Pain (mastalgia)

- Cyclical
- Non-cyclical
  - Breast
    - Acute / recent onset
      - Usually focal – cyst – inflamed, bleed
        - ruptured duct (PDM)
        - tender nodularity
    - Subacute / chronic
  - Non-breast
Mastalgia – cyclical – the first step...

Pain chart

This chart is intended to help you and your GP or nurse to see when your breast pain occurs. Record the amount of breast pain you experience each day by shading in each box as shown.

For example, if you get severe breast pain on the fifth day of the month then shade in completely the square under 5. Please note the day your period starts each month with the letter P.
Non-breast pain (40% of non-cyclical pain)

- Physical manoeuvring to detect
  - Cervical origin – radiculopathy
  - Tietze’s syndrome
  - Costco-chondritis
  - IHD
  - Shingles (VZV)...zostavax?
  - IHD
- If diffuse 70% respond to NSAIDs
- Focal 85% respond to steroid / LA injection
Mastalgia

- What is effective?
  - Tamoxifen\(^1\)
  - (Bromocriptine, danazol)
  - Zoladex\(^2,3\)
  - Supportive brassiere\(^4\)

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Mastalgia – treatment options

Why wear a bra?

The main reason for wearing a bra is to support the breasts. Breasts are made up of tissue that doesn’t contain any muscle. They are supported by ligaments within the breast and the muscles behind the breast. Wearing a bra helps to support the breasts and give a defined shape. A well-fitting bra will look better and be more comfortable.

The right size

Just as breasts come in all sizes so do bras, with band sizes ranging from 28 to 58 inches and cup sizes ranging from A to K.

The band size is how the bra fits round your back and the cup size is the size of the part of the bra that holds the breasts. The shoulder straps can usually be adjusted to give a better fit.

When buying a bra following a particular size guide can help, but remember that sizes are only a guide as they vary between makes and styles. The most important thing is to always try on a bra before you buy it. You may need to try on several bras in different styles and sizes (which vary by brand) before you find one that really fits well.

You can buy bras in fashion shops, department stores, supermarkets, specialist bra shops and by mail order or online. If you aren’t able to try on your bras in the shop or it comes by post, check that you can return it if it doesn’t fit properly.

Department stores and specialist bra shops usually have trained fitters who can help you find a bra that fits you properly. You can ask to be fitted – sometimes you may need to make an appointment in advance.

The bra fitter will take you into a private fitting room to measure and fit you correctly.

Trying on a bra

The best way to put on a bra is to put your arms through the straps then lean slightly forward so the breasts fall naturally into the cups.

Adjust the underband so it lies flat against your chest underneath your breasts. Fasten the bra on the first (loosest) set of hooks and make sure the underband is level all the way round. Adjust the shoulder straps until you feel your breasts are supported into their natural position, halfway between the shoulder and the elbow.

Alternatively, put the bra round your body so the hooks are at the front, fasten it, and then twist it round so the hooks are at the back. Put your arms through the shoulder straps and pull the bra cups into the correct position. Then adjust the straps and make sure the underband is level.

Look at yourself in the mirror in your bra and check:

- Is the bra too tight or too loose?
- Is the underband level at the front and back?
- Do the shoulder straps slip down or dig in?
- Does the centre of the bra between the cups sit flat on your chest?
- Are the underwires lying flat against the skin or are they riding up or digging in?
- Do your breasts fill the cups, are they loose so you can see a gap or are your breasts bulging over the top, bottom or side of the cup?
- Does the bra stay in place when you lift your arms up?

You may also want to check how it looks under your clothes – a light-coloured T-shirt or top can help show where the bra doesn’t fit correctly.

Your guide to a well-fitting bra

Which bra?

If you need a multiway or strapless bra to wear with a specific outfit, such as a halter neck or strapless top, take the clothes with you so you can try them on together.

If you play sport or are very physically active, sports bras are designed for comfort and to give your breasts extra support during the activity.

If you’re pregnant, think about buying a well supporting bra or a maternity bra so that you stay comfortable as your breasts get bigger. You may need to buy more than one bra during your pregnancy as your breast size change. If you’re planning to breastfeed, towards the end of your pregnancy you may want to buy a nursing bra. Some have a zip on each cup for easy access, some have a fastening so the cup can drop down, while others are made of stretch material that can be lifted over the breast. Try on different styles and try opening the cups under your clothes to check for comfort and convenience.

You can find out more about this in our booklet Breast changes during and after pregnancy.

Caring for your bras

Bra often go in the machine with the rest of the washing, but to get the most out of a bra, hand washing is best.

Machine washing may affect the shape and support of the bra over time, as well putting it in the tumble dryer. Try to follow the care instructions on the label, and check occasionally that any underwires are in place and the straps still have their stretch. If your bra no longer fits well, it’s time to replace it.

Central Office
Breast Cancer Care
5-19 Great Suffolk Street London SE1 0NS
Telephone 0808 800 8000 or visit www.breastcancercare.org.uk

Breast Cancer Care doesn’t just support people affected by breast cancer. We also highlight the importance of early detection and answer your questions about breast health. Our publications and website provide up-to-date, expert information on breast conditions and looking after your breasts.
Mastalgia - treatment options
Breast Lump

- Fibroadenoma
- Cyst
- Fibrocystic changes
- Fat Necrosis
- PDM
Minimally-invasive excision

- Vacuum-assisted excision

**Intact wand:**
(stereile, single-use)

Overall Length: 13.2" (33.5cm)

**Shaft Dimensions:**
0.26" (6.6mm) dia. x 4.5" (11.4cm)

**Precursor**—Uses RF energy to glide through breast tissue.

**Capture basket**—Five small RF-enabled wires deploy from the wand to circumscribe the lesion. As they proceed, they draw out five supporting elements which support and cradle the sample for withdrawal.

Wands are available in 10mm, 12mm, 15mm, and 20mm capture diameters.
Case 2

- 14 year old female
- Presents with rapidly enlarging Left breast
- Tells you there is a large lump
- L breast >> R breast
- L areola enlarging
Case 3

- 28 year old mother of 4, night manager of supermarket
- Lumps in periareolar region, red & tender after 3rd child
- Recurrent peri-areolar abscesses
- Has had multiple drainages & removal of medial ducts twice to no avail
Case 3

- Past
  - March 12 USS abscesses at 9 o’clock periareolar; aspirated Corynebacterium
  - Oct 12 Sinogram showed fistula
  - Jan 13 Microdochectomy

- Social history
  - Smokes 7-10 cigs/day
  - 4 children age 8, 5, 3 years & 15 months
Case 3

– Examination
  – Gross distortion of left nipple-areolar complex
  – Retraction of left nipple, oedema, complete loss of medial aspect of areola due to scarring
  – Mamillary fistula noted at 9 o’clock position with discharge
  – No cellulitis/obvious abscesses noted
  – Fibroadenoma at 3 o’clock; other breast normal

From Dr. Barry
Nipple discharge

- Physiologic
- Galactorrhoea (non-lactational)
- Pathological
  - Spontaneous
  - Unilateral
  - Single duct opening
  - Bloody, serous, watery
  - Persistent
Nipple discharge

L.E. Hughes: Benign Disorders and Diseases of the Breast
Nipple discharge

- Age and risk of malignancy
- (as the only symptom at presentation)
  - < 40 years 3%
  - 40-60 years 10%
  - >60 years 32%

Inflammation

- Infection
  - Post-partum (ultrasound-guided lavage)
  - Non-lactational (periductal mastitis)
  - Cellulitis (post radiation / Axillary surgery)

- Inflammatory
  - Mondor disease

DON’T forget INFLAMMATORY CA!

- Early biopsy
Abscess Formation – Periductal mastitis

From Dr. Barry
Periareolar Fistula

From Dr. Barry
Conclusion

- Exclude MALIGNANCY
  - With histological confirmation when possible
- Reassure
- Reassure
- Reassure
- Rare, refractory cases....medical / surgical Rx
Assessing Family History

- Both maternal and PATERNAL sides
- Ask about Jewish heritage
- Male breast cancer
- Ovarian breast cancer
- Others (pancreatic, sarcoma, glioma, adrenal)
- Age of onset
- Bilaterality
Assessing Family History

Update on the Manchester Scoring System for BRCA1 and BRCA2 testing

Table 1
Manchester scoring system

<table>
<thead>
<tr>
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<th>BRCA1</th>
<th>BRCA2</th>
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<tbody>
<tr>
<td>FBC &lt;30</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>FBC 30–39</td>
<td>4</td>
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<tr>
<td>FBC 40–49</td>
<td>3</td>
<td>3</td>
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<tr>
<td>FBC 50–59</td>
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<td>2</td>
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<tr>
<td>FBC &gt;59</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MBC &lt;60</td>
<td>5 (if BRCA2 tested)</td>
<td>8</td>
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<tr>
<td>MBC &gt;59</td>
<td>5 (if BRCA2 tested)</td>
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<tr>
<td>Ovarian cancer &lt;60</td>
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<td>5 (if BRCA1 tested)</td>
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<tr>
<td>Ovarian cancer &gt;59</td>
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<td>Pancreatic cancer</td>
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<tr>
<td>Prostate cancer &gt;59</td>
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Scores are added for each cancer in a direct lineage. FBC, female breast cancer; MBC, male breast cancer.