Community Breast Pain Clinics can provide safe, quality care for women presenting with breast pain

Mark Sibbering[1], Veronica Rogers[1], Louise Merriman[2], Iman Azmy[3], Denise Stafford[1], Kevin Clifton[3], Jennifer Pickard[4], Thilan Bartholomeuz[5], John FR Robertson[1,6]

1 Royal Derby Hospital, University Hospitals of Derby and Burton NHS Foundation Trust, Uttoxeter Road, Derby, UK, DE22 3NE
2 South Yorkshire and Bassetlaw Cancer Alliance, 722 Prince Of Wales Rd, Darnall, Sheffield, UK, S9 4EU
3 Chesterfield Royal Hospital NHS Foundation Trust, Chesterfield Road, Calow, Chesterfield, UK, S44 5BL
4 Ivy Grove Surgery, Steeple Drive, Ripley, Derbyshire. UK, DE5 3TH
5 Mid-Nottinghamshire Place Based Partnership, Sir John Robinson House, Sir John Robinson Way, Arnold, Nottingham, UK, NG5 6DA
6 Department of Breast Surgery, University of Nottingham, Graduate Entry Medical School, Royal Derby Hospital, Uttoxeter Road, Derby, UK, DE22 3DT

Abstract

Breast pain is not a symptom of breast cancer, yet nationally 20% of 2-week wait (2WW) breast referrals are breast pain alone. The East Midlands Breast Pain Pathway improves patient experience and frees capacity in secondary care diagnostic breast clinics, managing women with breast pain only in a community setting. **1,036 patients were seen at Community Breast Pain Clinics between June 2021 and February 2023 with 993 patients (95.8%) discharged from the clinic with breast pain management advice.**

Seven patients were diagnosed with breast cancer at or within 12 months of CBPC attendance. Five patients were diagnosed through attending the CBPC, one patient was subsequently referred to 2WW clinic with a new symptom and had a mammographically occult tumour and one was diagnosed following a subsequent routine breast screening invitation.

The results confirm the pathway is the first to demonstrate women can be safely managed with breast pain alone in a community setting with high levels of patient satisfaction.

Introduction

Nationally, there is an increasing demand for 2WW breast clinic referrals, which can lead to delays to the patient diagnostic pathway and failure to meet cancer treatment time targets [1] [2]. The Breast Cancer Faster Diagnosis Pathway Guidance [3] recognises these problems mandating triage of all new symptomatic breast referrals and diversion of patients away from the one-stop clinics for those at low risk of a cancer diagnosis who do not have red flag symptoms, such as those with breast pain alone. A pilot clinic in Mid-Nottinghamshire following the East Midlands Breast Pain Pathway (EMBPP) was the first of its kind to demonstrate that breast pain patients could be appropriately managed within a community setting [4]. We now report the evaluation of CBPCs on a wider scale with 12 month follow up outcome data regarding both safety and patient satisfaction with a general aim to demonstrate an improvement in the quality of available services.

Methods and Materials

Breast Pain Pathway

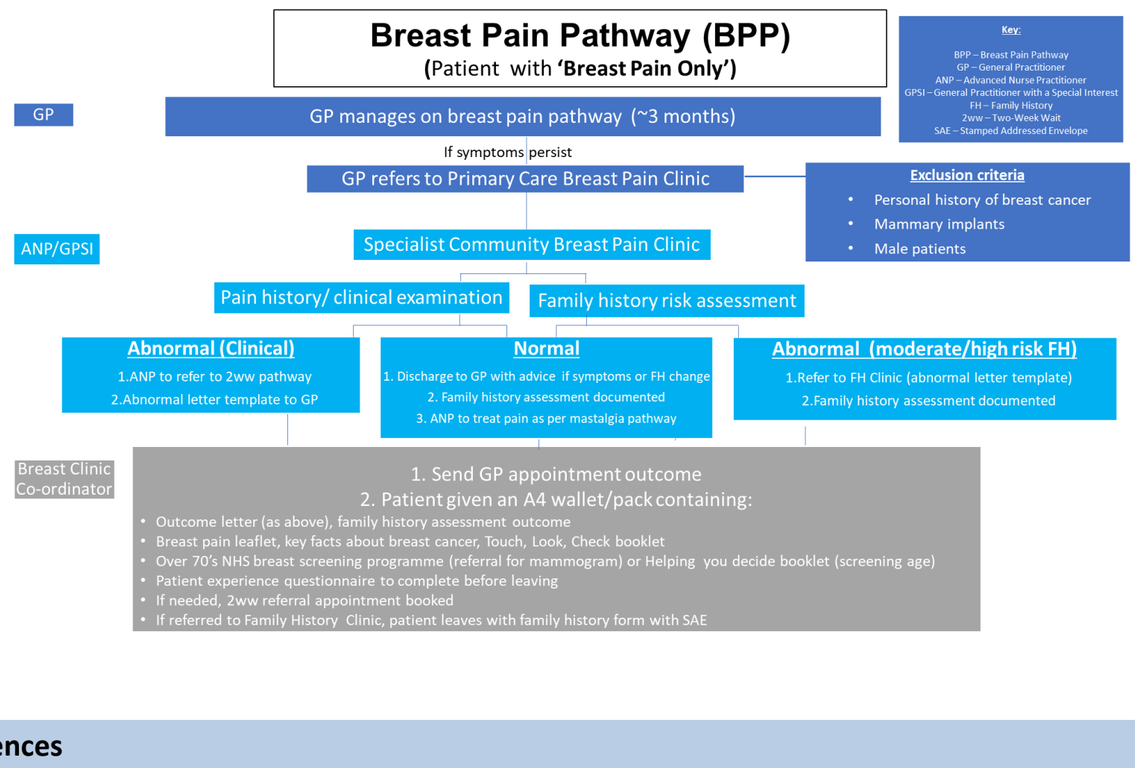
The important Pathway components are:

i) specialist breast pain clinics held in a community/primary care setting
ii) reassurance that 'breast pain only' is not a symptom of cancer [4]
iii) clinical examination by an experienced breast clinician
iv) objective, reproducible familial breast cancer risk assessment

Patients presenting with breast pain only as a symptom are managed in primary care as per NICE recommendations [5]. The referral criteria to the clinic are patients presenting with breast pain only and having no red-flag symptom or sign of cancer noted by the patient nor found by the referring clinician on examination. Excluded were i) male patients, ii) patients under 16 years of age, iii) patients with a personal history of breast cancer who have an increased risk of a second breast cancer and iv) patients with breast implants, as they are more likely to require imaging or surgical opinion.

Three clinic sessions were run weekly throughout the Derbyshire area: two sessions at the Florence Nightingale Community Hospital, Derby in South Derbyshire and one session at Ashgate Medical Practice, Chesterfield in North Derbyshire, to match the relevant catchment populations. The patient was seen by an Advanced Nurse Practitioner (ANP) experienced in breast examination. Breast cancer risk assessment was carried out according to NICE Guidelines (CG164) for Familial Breast Cancer in primary care [6] using the FaHRAS software (FaHRAS, UK).

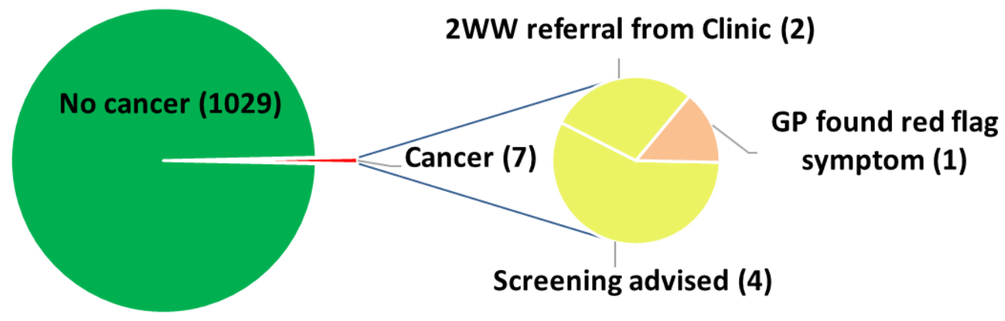
Figure 1. Breast Pain Pathway



Results

1,036 patients were seen at Community Breast Pain Clinics (CBPCs) between 01/06/21-28/02/23. The median patient age was 49 (range 16-88) years. 993 patients (95.8%) were discharged from the clinic with management advice regarding their breast pain. 43 (4.2%) patients were referred for further assessment at a 2WW breast diagnostic clinic. **Objective family history risk assessment (FaHRAS, UK) identified 124 patients (12.3%) above population risk of breast cancer** and were offered referral to Familial Cancer Services for ongoing management.

Figure 2. Cancers detected subsequently to CBPC attendance



Seven patients were diagnosed with breast cancer at or within 12 months of CBPC attendance (see table 1). Breast cancer incidence in women fulfilling CBPC referral criteria was 4.8/1,000, confirming **the population is at low risk of developing breast cancer. Patient service satisfaction was high with 99% of patients (n=1,022) "extremely likely or likely" to recommend the service.**

Table 1. CBPC Patients Diagnosed with Breast Cancer

Px	Age	Clinic Outcome	Referral Source	Reason	Previous personal history of BC	Type of cancer
1	70	Referral to 2WW	CBPC	Palpable lump, skin dimpling	No	Invasive
2	75	Referral to 2WW	CPBC	Exclusion criterion	Yes	Invasive
3	65	Discharged	Screening advised	5 years since last screening	No	Invasive
4	72	Discharged	Screening advised	Family history risk. Eligible > 70 years	No	Invasive
5	75	Discharged	GP - new red flag sign	Developed new nipple retraction	Yes (bilateral)	Invasive
6	77	Discharged	Screening advised	Eligible > 70 years	No	Invasive
7	57	Discharged	Routine Screening	Screening age group	No	Invasive

Discussion

The Derbyshire evaluation provides evidence supporting the safety of the EMBPP. **No diagnostic cancer pathway is 100% accurate but it is reassuring there is no evidence that any patient would have had their breast cancer detected earlier if seen in a 2WW clinic.** 5/7 breast cancers were diagnosed through attending the CBPC, either by direct onward referral to the 2WW clinic or through advice given at the CBPC to access the NHSBSP. Mammographic screening advice is recorded by the ANPs and screen-detected breast cancers diagnosed within 2 months of the clinic visit are attributed to the clinic attendance. The other screen detected cancer was impalpable, contralateral to her pain and detected at a scheduled screen. The patient later referred with new symptoms (nipple retraction) had a mammographically occult cancer even at the 2WW clinic.

2/7 breast cancers were in patients with a personal history of breast cancer, an exclusion criterion for the CBPC due to their increased risk. Such patients should not be seen in the CBPC as they should be triaged to a 2WW clinic, but this was not mentioned in their referral information. Now, a patient found to have a personal history of breast cancer when seen in the CBPC is automatically onward referred to the 2WW clinic, even if clinical examination is normal. **5/1,034 patients with breast pain only who fulfilled the inclusion & exclusion criteria for the CBPC had a breast cancer diagnosed giving an incidence of 4.8 per 1,000.** This prospectively collected data is in keeping with a recently published literature review (4.6/1,000) [7]. **Importantly there is no evidence that the diagnosis of breast cancer would have been made earlier if the patients have been initially referred to a 2WW.**

Conclusions

Community Breast Pain Clinics have been successfully introduced at multiple sites in Derbyshire, a catchment population of just over 1 million people. **The evaluation results confirm that the East Midlands Breast Pain Pathway can safely manage women with breast pain alone in a community setting** with high levels of patient satisfaction, at the same time freeing up much needed capacity in secondary care diagnostic breast clinics. **It is the first breast pain pathway to demonstrate this, in keeping with NHSE Faster Diagnosis Pathway Guidance [3].**

References

[1] Nuffield Trust, "Cancer Waiting Time Targets," Nuffield Trust, 29 04 2021. [Online]. Available: https://www.nuffieldtrust.org.uk/resource/cancer-waiting-time-targets. [Accessed 18 05 2021]. **[2] NHS Providers, "Understanding cancer performance in the NHS,"** NHS Providers, 29 01 2020. [Online]. Available: https://nhsproviders.org/news blogs/ blogs/understanding-cancer-performance-in-the-nhs. [Accessed 18 05 2021]. **[3] NHS England, "Faster diagnostic pathways: implementing a timed breast cancer diagnostic pathway: guidance for local health and social care systems,"** 4 03 2024. [Online]. Available: https://www.england.nhs.uk/long-read/faster-diagnostic-pathways-implementing-a-timed-breast-cancer-diagnostic-pathway-guidance-for-local-health-and-social-care-systems. [Accessed 14 03 2024]**. [4] M. Jahan et al, "Transforming the 2-week wait (2WW) pathway: management of breast pain in primary care,"** BMJ Open Quality , vol. 11, no. 1, 2022. **[5] National Institute for Health and Care Excellence (NICE), "Breast pain - cyclical"** 08 2021. [Online]. Available: https://cks.nice.org.uk/topics/breast-pain-cyclical/. [Accessed 19 06 2023]. **[6] National Institute for Health and Care Excellence (NICE), "Familial breast cancer: classification, care and managing breast cancer and related risks in people with a family history of breast cancer,"** 2013. [Online]. Available: https://www.nice.org.uk/guidance/cg164. [Accessed 27 01 2023]**. [7] R. V. Dave et al, "No association between breast pain and breast cancer: a prospective cohort study of 10 830 symptomatic women presenting to a breast cancer diagnostic clinic,"** British Journal of General Practice, vol. 717, no. 72, pp. e234-e243, 2022.

Contact & Disclosures

Mark Sibbering (mark.sibbering@nhs.net): a Breast Surgeon who has provided Breast Cancer Educational Services and attended Advisory Boards for Roche Products Ltd. **TB** is a GP with special interest in Cancer Services, Clinical Lead for Mid Nottinghamshire Placed Based Partnership. **JR** is a Breast Surgeon with an interest in early cancer detection and has consulted for AstraZeneca, Bayer, Carrick Therapeutics & Cullinan Oncology. He also has provided expert testimony for AstraZeneca. He holds shares in Oncimmune Holdings, FaHRAS Ltd and Carrick Therapeutics. **JP** is a GP who works as the cancer clinical lead for Derby and Derbyshire Integrated Care Board (DDICB).
We would like to thank the patients who attended CBPCs and provided their feedback. The implementation of CPBCs in Derbyshire has been a collaborative effort and we would like to acknowledge: East Midlands (EM) Health Innovation, EM Cancer Alliance, EM Breast Cancer ECAG, EM Primary Care Transformation Group, ABS, Derby Breast Surgeons, Derbyshire BP Pilot Team, Mid-Notts BP Pilot Team, University of Nottingham, & FaHRAS Ltd.