

# What are the benefits of routine breast cancer follow-up?

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**Summary:** The value of follow-up after potentially curative treatment of breast cancer remains controversial. Recurrence-free women ( $n = 402$ ) attending a breast clinic over a 3 month period were studied. The women attended 423 appointments, 412 of which were routine. Eleven were requested by the patient or general practitioner (interval appointments). All 11 interval and 19 of the routine appointments resulted in investigations for possible recurrence. Three (27%) interval appointments and four (1%) routine appointments resulted in the diagnosis of a recurrence ( $P < 10^{-5}$ ).

The attitudes of 285 patients to follow-up were investigated by questionnaire. Two hundred and twenty-three (78%) questionnaires were completed. Regular follow-up in the breast clinic was preferred to attendance only when symptomatic by 190 (85%) women and 169 (76%) preferred regular breast clinic visits to general practitioner follow-up. Most women ( $n = 174$ ) (81%) said they felt reassured and less anxious having attended the breast clinic. Routine follow-up after potentially curative treatment of breast cancer is inefficient in the detection of recurrence. It is, however, highly rated for providing reassurance and reducing anxiety. Reassurance rather than detection of recurrence may be the most important function of the breast cancer follow-up clinic.

## Introduction

Follow-up is standard practice in the aftercare of patients having surgical treatment for breast cancer. Very few recurrences are, however, potentially curable and it is probable that this practice has little effect on the subsequent course of the disease.<sup>1</sup> It is likely, though, that routine follow-up provides a framework for psychological support and is popular for this reason.<sup>2,3</sup>

In this study, the effectiveness of follow-up in the detection of recurrence has been assessed. Also, patients' attitudes and the degree of social and domestic disruption caused by the follow-up process have been measured using a questionnaire.

## Patients and methods

All patients receiving potentially curative treatment for breast cancer from one unit are followed-up in two special weekly clinics. Routine follow-up appointments are given 3 monthly for the first year, 4 monthly for the next 2 years, 6 monthly for the next 2 years, and then annually for the next 5 years. An option of discharge from the clinic is given at 10 years.

An audit of these clinics was performed over a 3 month period. All patients who had received surgical treatment with or without adjuvant therapy and were free of recurrence at the start of the study were included. All suspected and confirmed recurrences during the study period were noted as was the method of presentation. Appointments initiated by patients or their general practitioners between routine visits were termed 'interval'.

Patients were asked to complete questionnaires during the clinic. The questions are shown in Table I(a). Broadly, they deal with the effect of clinic attendance on social and domestic factors, attitudes to breast self-examination and with attitudes to the follow-up clinic.

## Results

Four hundred and two study patients attended during the 3 month period. The median age of the women was 62 (range 23–89) years and the median duration of follow-up was 2 years (range 1 month–17 years). The treatments and histological diagnoses are shown in Tables II and III. Two hundred and forty-one patients had negative axillary nodes, 103 patients had positive nodes and, in 48 patients, the nodal status was unknown.

The 402 patients attended 423 appointments during the 3 months of the study. Seventeen

Table I

<i>(a) Questionnaire</i>	<i>(b) Results*</i>
1. Did you have to take time off work to come to the clinic?	Yes 49 (22%) No 173 (78%)
2. Did you have to make special domestic arrangements to come to the clinic?	Yes 27 (12%) No 195 (88%)
3. How far did you have to travel?	
1-5 miles	115 (52%)
6-10 miles	61 (27%)
11-20 miles	34 (15%)
21-30 miles	11 (5%)
31-50 miles	1 (0.5%)
4. How did you travel?	
Your own transport	139 (64%)
Public transport	65 (30%)
Hospital transport	4 (2%)
Other	9 (4%)
5. For what reason have you been asked to attend this clinic?	
For a check-up	209 (96%)
For tests	1 (0.5%)
For results	7 (3.5%)
Do not know	0 (0%)
6. Have you been taught how to examine your breast area?	Yes 184 (85%) No 33 (15%)
7. Approximately, how often do you examine your breast area?	
More than once a month	75 (35%)
Once a month	85 (39%)
Less than once a month	35 (39%)
Not at all	21 (10%)
8. If you were taught to examine your breast area, would you prefer to:	
Report to the clinic only if you had any worries?	30 (15%)
Continued to see us for follow-up as you do now?	168 (85%)
9. If you are having long-term follow-up, would you prefer to:	
Be seen at the hospital breast clinic (as now)?	153 (76%)
Be seen by your general practitioner?	48 (24%)
10. When you attend the clinic do you feel:	
Reassured and less anxious?	174 (81%)
No different?	33 (15%)
More concerned and anxious?	8 (4%)
11. Would you find it helpful to be given more information about breast disease?	Yes 142 (67%) No 69 (33%)

\*Not all women answered all questions. Percentages refer to those responding to individual questions.

patients attended two, and two patients attended three appointments, the rest making a single visit. Four hundred and twelve of the appointments were routine while 11 were patient-initiated 'interval' visits. Eleven possible recurrences (three later confirmed) were found at the 11 'interval' visits, while 19 possible recurrences (four later confirmed) were

found at the 412 routine visits. Thus recurrences were detected at only 1% (4/412) of routine visits as compared with 27% (3/11) of 'interval' visits [ $\chi^2$  with Yates' correction = 30.8,  $P < 10^{-5}$ , 1 d.f.].

The initial treatment of the seven women with recurrent disease was by surgery alone in three cases and surgery with radiotherapy in four cases.

**Table II** Potentially curative breast cancer treatments given to 402 women

Mastectomy	Axillary clearance ( <i>n</i> = 203)
	No axillary clearance ( <i>n</i> = 13)
Wide excision	Axillary clearance ( <i>n</i> = 145)
	No axillary clearance ( <i>n</i> = 41)
Adjuvant breast radiotherapy ( <i>n</i> = 173)	
Adjuvant tamoxifen – post-menopausal patients	
Adjuvant chemotherapy – pre-menopausal patients with 1–3 lymph nodes involved	

**Table III** Tumour histology

<i>Histological type</i>	<i>n (%)</i>
Invasive ductal carcinoma	312 (78)
Invasive lobular carcinoma	30 (8)
<i>In situ</i> ductal carcinoma	25 (6)
Tubular carcinoma	13 (3)
Medullary carcinoma	11 (3)
<i>In situ</i> lobular carcinoma	4 (1)
Others	4 (1)
Unknown	3 (1)

Six patients had had a mastectomy, one a wide local excision and all seven, an axillary clearance. One pulmonary and two locoregional recurrences were detected at interval visits. One pulmonary, one bone and two locoregional recurrences were detected at routine visits.

Of the 402 patients, 285 were asked to complete the questionnaire and 223 (78%) complied. The results are shown in Table I(b). Few had to take time off work (22%) or make special domestic arrangements (12%) to get to the clinic. Most used their own transport (64%) and had to travel less than 6 miles. The majority had been taught to examine their breast area (85%) and did so once a month or more (74%). Most patients preferred the idea of hospital follow-up to general practitioner follow-up (76%), and claimed to feel reassured and less anxious when they attended the clinic (81%).

## Discussion

After potentially curative treatment of breast cancer, patients are followed-up for three main reasons. One of these, audit, has not so far been

mentioned in this paper. This is clearly important in a disease in which treatment failures remain common. Whether out-patient follow-up is the only or best method for obtaining audit (or research) data will not be discussed further here. We would suggest, however, that patients are unlikely to regard their clinic visits as being principally of value for audit or research!

Most doctors and patients regard the chief reason for follow-up to be the detection of recurrent disease. The major point at issue is whether there is any benefit in such detection before the patient becomes symptomatic. What evidence there is suggests that detection and treatment of asymptomatic disease results in no better survival than treatment of symptomatic recurrence.<sup>1,3,4</sup> If this is so, detection of asymptomatic recurrence merely gives a patient more prolonged knowledge of treatment failure without any ultimate therapeutic benefit. It is clear from our results that 'interval' appointments yield a far higher proportion of recurrences than do routine follow-up appointments. This is in agreement with previous findings.<sup>2,5</sup> The questionnaire results show that most patients examine their breast areas regularly and frequently. On these considerations alone, there would seem to be good reasons for discontinuing the practice of routine follow-up after potentially curative treatment of breast cancer. Women, however, prefer 'routine' to 'interval' appointments. They prefer conventional hospital follow-up to the idea of general practitioner follow-up which has been suggested by previous authors.<sup>6</sup> The majority feel reassured and less anxious when they attend the clinic. In addition, only a few have to take time off work or make special domestic arrangements to come to the clinic. Most women have to travel only a short distance to the clinic and most do so using their own transport. Thus our follow-up clinic appears to be popular and attendance causes little inconvenience.

We have not asked women whether they expect follow-up to increase their chances of survival but the popularity of the follow-up clinic suggests that this is probably their expectation. Clearly, however, it would not be supportive to these patients who are often distressed, to suggest that they may be able to follow the subsequent course of their disease as effectively as the doctors in the clinic.

The solution to this dilemma is not clear. An alternative to routine follow-up might be post-operative counselling with clinic visits only when requested by patients. A randomized trial comparing the value of routine and 'on demand' follow-up in patients having potentially curative treatment for breast cancer is probably timely.

**References**

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