

## ORIGINAL ARTICLE

# Audit of Attendance for Scheduled Breast Imaging Examinations

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### ABSTRACT

**Aim:** Audit performed to ascertain the attendance rate and the reasons for non-attendance for scheduled breast imaging.

**Patients and Methods:** The number of defaulters scheduled for breast examinations during mid-May to mid-June 2002 was recorded. All defaulters were approached for a telephone interview to ask about the cause of non-attendance.

**Results:** 349 of 368 elective patients attended the breast imaging unit. The non-attendance rate was 5.2%. Nine of the 19 non-attending patients could not be contacted (47.4%). Young patients in the age range of 30 to 39 years were the most frequent defaulters (58%). The highest non-attendance rate was found on Monday and the lowest was on Thursday.

**Conclusion:** There was a high attendance rate for breast imaging examinations. Methods to further improve the attendance rate such as a reminder system may not be justified financially.

**Key Words:** Breast, Mammography, Ultrasonography, mammary

### INTRODUCTION

The breast imaging unit at the Prince of Wales Hospital is the busiest centre of the New Territory East cluster of hospitals. More than 300 elective breast imaging examinations are performed per month — on average, 12 elective examinations are performed in the morning session and 9 in the afternoon session. Patients undergo both mammographic and ultrasound examinations, and fine needle aspiration or ultrasound-guided biopsy will be performed according to clinical indications during the same attendance. Non-attendance of patients will affect the cost-effectiveness of the service.<sup>1</sup> The waiting list for diagnosis and management will be unnecessarily prolonged. This audit was performed to estimate the attendance rate and the reasons for non-attendance.

### PATIENTS AND METHODS

368 patients were scheduled to have ultrasound breast and/or mammography examinations from mid-May to mid-June 2002. The number of defaulters scheduled for breast examinations during this period was recorded. All defaulters were approached by a telephone

interview. All the telephone interviews were conducted using a standard format of questions and were performed by only one person to avoid inter-observer variation. During the conversation, the interviewer inquired about the cause of non-attendance. Telephone enquiry was considered unsuccessful when the defaulter could not be contacted by telephone on 3 different occasions.

### RESULTS

349 of 368 elective patients attended the breast imaging unit. The non-attendance rate was therefore 5.2%. The waiting time varied for different clinical indications but the average waiting time was approximately 3 weeks.

Nine of the 19 non-attending patients could not be contacted (47.4%). The reasons for non-attendance of those who could be contacted are listed in Table 1. The age distribution of the defaulters is listed in Figure 1. Young

**Table 1.** Reasons for non-attendance for breast imaging.

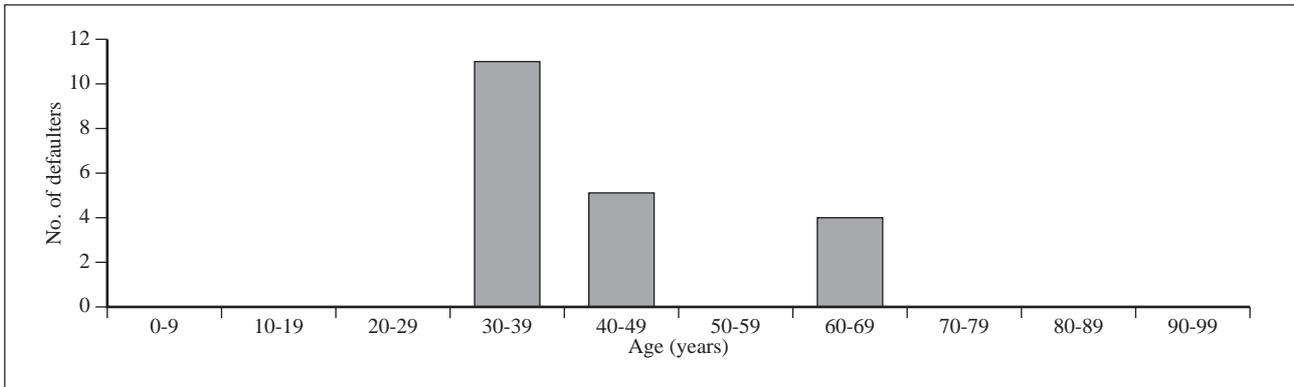
Reasons	No. of patients	%
Busy	2	10.3
Forgotten appointment	3	15.8
Examination done in private sector	1	5.3
Patient did not find the examination necessary	1	5.3
Patient moves away from the area	1	5.3
Sick on the day of examination	1	5.3
Cancelled by radiologist	1	5.3
Patient not contactable	9	47.4
Total	19	100

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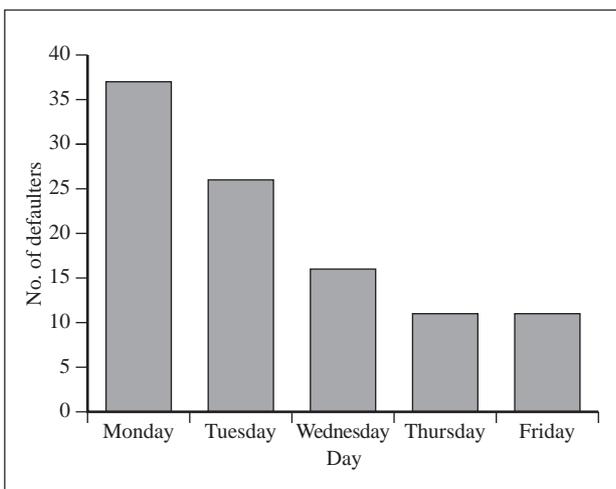
**Figure 1.** Age distribution of defaulters of breast imaging.

patients in the age range of 30 to 39 years were the most frequent defaulters (58%).

The non-attendance distribution throughout the week is listed in Figure 2. The highest non-attendance rate was found on Monday and the lowest was Thursday but the difference was not statistically significant. The low non-attendance rate on Thursday could be related to a 1-stop clinic running on that day of the week.

## DISCUSSION

Large-scale screening mammography has been conducted in western countries. Attendance rates vary among different age groups. Peeters et al found that the attendance rate for women younger than 50 years was highest (up to 87%) whereas the attendance rate for women aged 65 years or older was only 40%.<sup>2</sup> In the 1-month audit described here, the attendance rate was 94.8%, which was significantly higher than that quoted for other centres.<sup>2,3</sup> Presence or absence of breast symptoms and patients' worry could affect the attendance rate.<sup>4</sup> All of the patients referred to the Prince of



**Figure 2.** Distribution of non-attendance by day of the week.

Wales Hospital had breast symptoms such as breast lumps or nipple discharge. Some of the patients were scheduled for follow up either because they had previously had breast carcinoma or because they had a breast abnormality detected by previous ultrasound or mammography. These patients therefore were more concerned about their condition and were keen to attend the clinic. In addition, the relatively short waiting time may help to explain the high attendance rate.

The non-attendance rate for breast imaging was only 5.2% (19 of 368 patients). Among the 10 contactable patients, the most common reason for non-attendance was forgetting about the appointment (30%). Occupied on the day of examination constituted the second most common reason (20%). In this small population, significant analysis of the reasons for not attending the appointment cannot be done. Alcaraz et al analysed the completed questionnaires of 361 women not attending a breast cancer screening program.<sup>5</sup> Most of the women did not attend the programme because they were being screened at another health centre (49%) or because of 'personal reasons' (16%). In Hong Kong, it would be unlikely for a patient to attend another health centre unless the patient sought private service. This may be another reason for the high attendance rate.

The attendance rate may be affected by a number of different factors, but the age of the patients is a significant factor.<sup>2,3</sup> Other important factors include socio-economic status and educational level. In the studies by Peeters et al<sup>2</sup> and Ciatto et al<sup>3</sup> younger patients had a better attendance rate, which is contrary to this study. However, this analysis may not be representative as only 10 non-attendants were approached.

The attendance rate was high for the 1-stop clinic, although this was not statistically significant. At this

clinic, breast imaging is performed and patients have the surgical consultation after the imaging on the same day. The patient visits the hospital only once and both the surgical consultation and radiological examination are completed. Patients prefer the easy accessibility of a comprehensive medical service,<sup>6</sup> which may explain the high attendance rate. The running of the 1-stop clinic requires interdepartmental coordination but enables efficient patient management. Patients with normal mammography and ultrasound imaging only visit the surgical clinic once and reports are given to the patients on the same day.

McEwen found that there was an increased response for breast screening if the patients received a reminder for the appointment.<sup>7</sup> A reminding phone call system is used for magnetic resonance imaging appointments with a significant reduction in number of defaulters. However, with only 3 non-attendees forgetting the appointment, a reminder system is probably not justified for the breast clinic. Alternative methods such as letting the patient indicate their preference of examination day may further improve the attendance rate, although the implications for resources and difficulty in administration should be considered.

The main limitation of this audit lies in the short period of study and the small number of patients. However, with the high attendance rate reflected by this small scale

audit, a large scale audit might not give any results to justify further improvement in daily practice. A large scale audit was therefore not performed.

## CONCLUSION

There was a high attendance rate for breast imaging examinations. Methods to further improve the attendance rate such as a reminder system may not be justified financially.

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