

Non-attendance rates at a regional plastic surgery day case theatre and the associated cost implications to the unit

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Abstract

Aim: This study aimed to measure our plastic day surgery non-attendance rate and its cost implication.

Methods: A study was carried out from January to June 2007. Non-attenders to plastic day surgery were identified. The financial cost was calculated.

Results: There were 895 day surgery patients with 16 non-attenders (1.79%). The cost to the hospital trust was a total of £18,350.

Keywords: Ambulatory surgery; Non-attendance; Efficiency; Day case; Cost effectiveness

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Conclusion: Non-attendance for day surgery wastes hospital resources and has significant financial implications. A low non-attendance rate maximises theatre utilisation and earnings. We also describe our practice to show how our low nonattendance rate was achieved.

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Introduction

Patients who fail to attend their day surgery appointments incur an opportunity cost in terms of the surgeon's time as well as an economic cost to the trust. This economic cost usually consists of a fixed cost for consumables, theatre space, time and staff; as well as a lost opportunity cost (ie. lost income for not performing operations on non-attenders). This latter value is variable depending on the specialty and operation to be performed. In order to measure the financial impact of plastic day surgery non-attenders to the trust, a study was undertaken to determine the number of non-attenders over a 6 month period. Data gathered from patient's notes such as reasons for non-attendance and 3 patient demographics are discussed. The fixed and lost opportunity costs are calculated on an individual patient basis to determine the economic impact. Our current practice in maintaining a low non-attendance rate is then described.

Methods

A retrospective study over a period of 6 months from January to June 2007 inclusive was carried out at the plastic surgery department at Selly Oak hospital. Day case plastic surgery is undertaken in two theatres by 10 consultants and the ward attendance books for these theatres were examined. The non-attenders for day case plastic surgery over the 6 months were identified and their medical notes were examined, noting down their sex, age, history of previous non-attendance, individual operations and the reasons for not attending. The financial cost to the hospital trust was calculated by adding the fixed costs (cost of theatre facilities, staff and consumables) and the lost opportunity cost (lost income for not performing operations on non-attenders). The figures for the fixed costs and the individual operations were obtained from the trust's finance department.

Results

A total of 895 plastic surgery patients were booked for day surgery over the period of 6 months. There were a total of 16 non-attenders

giving a non-attendance rate of 1.79%. Of the 16 patients, 12 were male and the age range was from 17–77 years with a median of 43 and a mean of 39 years. 3 patients had a history of at least 1 previous nonattendance at either a clinic or other local anaesthetic list. There were various reasons for non-attendance listed in the ward books. Where the reason for non-attendance was not stated, patients were telephoned and reasons were obtained (see Table 1). Following their non-attendance, 8 of the 16 patients re-booked for surgery.

Table 1 Reasons for non-attendance given by patients.

Reason for DNA	Number
Changed mind	2
Did not receive letter	2
Forgot appointment	4
Afraid of surgery	1
No time	2
Unwell	3
Miscommunication	2
Total	16

In order to determine the financial cost to the trust of these non-attenders, the fixed costs and lost opportunity costs were added together. To obtain the fixed costs and costing of various procedures, the trust's finance department was contacted.

In terms of the fixed costs, 1 day case session cost the plastic surgery department £430.

This included the expenditure required to run the theatre session (medical staff, nursing staff, theatre facilities, ward facilities, electricity, etc). Making the conservative assumption that each session could accommodate 4 cases on average, the total cost for 16 non-attenders would be 4 sessions or £1720 (£430 x 4).

There was also a further charge known as the 'non-pay charge' for drugs, dressings, sutures, instruments and other miscellaneous items. This was incurred by the trust on the plastic surgery department for each individual patient regardless of whether the patient attended or not. This charge was variable and was dependent on the complexity of the operation with minor cases costing £110, intermediate cases costing £230 and major cases attracting a cost of £540. By definition, only minor cases could be performed in day surgery. Therefore all 16 cases of non-attendance attracted a 'non-pay charge' of £1760 (£110 x 16). The total fixed cost was therefore £3480 (£1720 + £1760).

In terms of the lost opportunity costs, each individual operation attracted a different payment from the Primary Care Trust (PCT). The operations that were scheduled for each patient but not performed, along with their charge to the PCT is listed (see Table 2). The total lost opportunity cost in our study period amounted to £14870, giving a total cost to the trust of £18350 (£14870 + £3480)

Table 2 Procedures with associated cost.

Patient	Procedure	Cost (£)
1	Nipple reconstruction	772
2	Carpal tunnel decompression	724
3	Excision biopsy of 3 lesions	571 x 3 = 1,713
4	Excision BCC and direct closure	2,785
5	Excision benign cyst	571
6	Repair split ear lobe	1,060
7	Excision nail spike middle finger	689
8	Excision biopsy lymph node	2,441
9	Excision myxoid cyst ring finger	571
10	Excision nail spike index finger	689
11	Excision rhinophyma	571
12	Excision cyst temple	571
13	Excision benign naevus	571
14	Excision benign naevus	571
15	Excision congenital melanocytic naevus	571
16	Excision benign naevus	571
	Total	14,870

Discussion

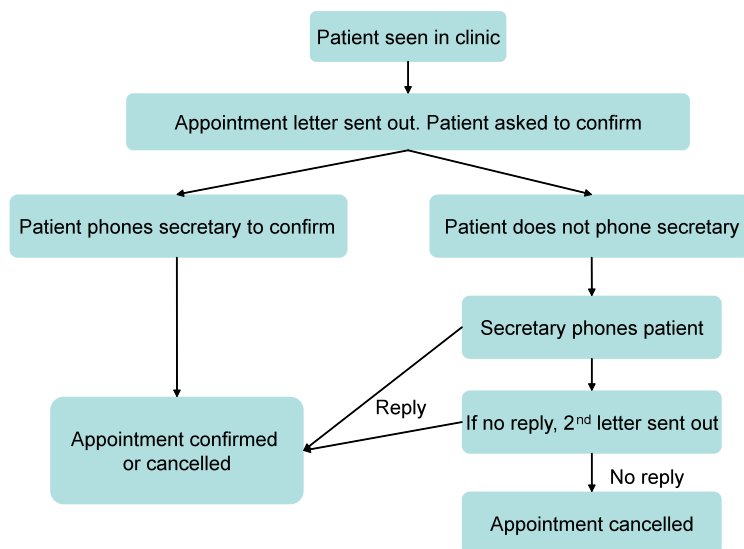
There has not been any previously published figures on the non-attendance rate in a plastic day surgery unit however non-attendance in other fields and specialties is well documented along with the methods employed to reduce this. Lee and McCormick found that by using telephone reminders, their non-attendance rate in outpatient gastrointestinal endoscopy fell from 23.3% to 5.7% over a 2 month period [1]. Similarly, Dockery et al. found that their non-attendance rate of care of the elderly clinics fell from 21% to 5% by using telephone reminders [2]. This measure was also effective in reducing non-attendance in adolescent clinics [3].

Another novel method of reminding patients about their appointments include using 'short message service' or SMS via mobile telephone. Geraghty et al found a reduction in their ENT outpatients non-attendance rate from 33.6% to 22% by using SMS [4]. The cost of using a SMS service to remind patients has been shown to

equate to £7.50 per non-attendance avoided [5]. This cost may not be acceptable in improving attendance rates at outpatient clinics however it is a relatively cheap method of reminding day surgery patients considering that the 16 non-attenders in our study cost our trust an average of £1,147 per patient.

The non-attendance rate at our plastic day surgery unit is a relatively low 1.79% compared to other specialties. This low rate may be related to the surgery carried out whereby the majority of cases involve either skin cancer excisions or may be secondarily aesthetic in nature (ie. involve the excision of skin/subcutaneous lesions in prominent areas). Nevertheless, we have included a flow chart of our current practice to show how our low non-attendance rate was achieved (see Figure 1).

Figure 1 Flowchart showing process of appointment confirmation



Conclusion

Patient non-attendance at clinics and theatre sessions is a difficult problem. It results in under utilization of resources and clinical personnel who are scheduled to attend to the patient who is absent. It wastes hospital resources, lengthens waiting lists and has significant financial implications to the Trust and surgical department as illustrated in this audit. With the recent introduction of the 18 week referral to treatment (RTT) objective [6] by the government coupled with the economic difficulties that the NHS is facing, it is important that we maintain a low non-attendance rate to maximise theatre utilization, increase staff efficiency and earnings via payment by results.

All figures correct for financial year 2007/08

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