

# The effect of reminder calls in reducing non-attendance rates at care of the elderly clinics

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## Abstract

**Background**—DNA (“did not attend”) at outpatient clinics is an important problem costing the NHS an estimated £266 million annually. The national DNA rate for 1996–1997 for all clinics was 12%. The DNA rate at Hammersmith Hospital for the same year in the care of the elderly specialty was 21%. The aim of this study was to establish why this was so, and to test the efficacy of a reminder call in increasing attendance rates at care of the elderly clinics.

**Methods**—23 DNAs from seven clinics were contacted to ascertain the reasons for non-attendance (group I). For seven further clinics, 84 patients were contacted in advance to reconfirm their appointment (group II).

**Results**—From group II 12 patients were identified who were unaware of their appointment (14%), six of whom agreed to attend; thus six potential DNAs were prevented. Eleven vacant appointments were identified in advance. The unexpected DNA rate was reduced to 5% from a potential 21% as a result of this exercise. The DNA rate for all patients with dementia (both groups) was 44%, whereas the DNA rate for all patients without this diagnosis (both groups) was 16% ( $p < 0.001$ ).

**Conclusions**—A preclinic phone call reminder to elderly patients is feasible, increases attendance rates, and identifies vacant appointments. Patients with dementia are more likely to miss clinic appointments; therefore they and their carers need specific reminders about appointment dates.

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Keywords: outpatient clinics; attendance rates; elderly patients; dementia

DNA (“did not attend”) at outpatient clinics is a significant problem nationally, and high costs are incurred when many patients fail to attend their clinic appointments. The effects of DNAs are poor management of clinics, with vacant appointments leading to idle time and poor utilisation of medical, nursing, and clerical staff time. Waiting list times are extended because DNA's are given repeat appointments. The estimated cost to the NHS is up to £266 million annually, or £1 million per trust.<sup>1</sup> DNA rates are now included in NHS performance tables. The national DNA rate for all specialties for 1996–97 was 12%.<sup>2</sup> This implies that one in eight patients fails to keep an appointment. At the Hammersmith Hospitals Trust this rate for the same year

was 16.5%, and the DNA rate for the care of the elderly specialty at this hospital was 21.1%. This figure was very high compared to the national average, so we decided to investigate the reasons and instigate measures to improve it.

Reasons for non-attendance have been looked at by the National Audit Office and several other regions and trusts, with results showing that up to 50% of non-attenders say they forgot their appointment or did not know about it.<sup>1–6</sup> This suggests that there is a role for reminding patients in advance, and this has been done by other trusts with positive results,<sup>1–10</sup> though not specifically in elderly patients. We therefore undertook this exercise in our care of the elderly clinics.

## Methods

We contacted 23 DNAs at seven clinics during August to September 1998 (78 appointments; DNA rate 29.5%) to ascertain the reasons for non-attendance (group I). For seven further clinics during September to October 1998, we telephoned 84 patients one to four days in advance, to reconfirm their appointment (group II). The calls were performed by one of the medical staff and they spoke to the patient or to their spouse or other relative if they were not living alone. The telephone numbers were obtained from the hospital information system. The directory inquiries service was used for those who did not have a phone number listed. Following this exercise, case notes of all patients were studied to identify any history of dementia, as diagnosed by attending doctors during previous clinics or hospital admissions. To compare the proportion of dementia patients in each group we used a  $\chi^2$  test.

## Results

Table 1 includes the reasons for non-attendance of patients contacted retrospectively (group I). The DNA rate for this period was 29.5% (23/78). The reasons for non-attendance are similar to those found by other audit groups,<sup>1–6</sup> though hospital transport was responsible for 13% of DNAs in our study. Of

Table 1 Reasons for non-attendance before (group I) and after (group II) reminder calls

Reason for DNA	Group I DNA; n=23 (of 78 appointments)	Group II DNA; n=15 (of 84 appointments)
Forgot/no letter	8 (34.7%)	0 (0%)
Refused	4 (17.4%)	4 (26.7%)
Too ill/died	2 (8.7%)	3 (20.0%)
Hospital transport problems	3 (13.0%)	2 (13.3%)*
Had cancelled already	2 (8.7%)	2 (13.3%)
On holidays/away	0 (0%)	2 (13.3%)
Other/no reason obtained	4 (17.4%)	2 (13.3%)*

\*The unexpected non-attenders. DNA, did not attend.

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Table 2 Results of reminder calls (group II; 84 appointments/calls)

No phone		8.3% (n=7)
No reply		8.3% (n=7)
Aware of appointment	Coming	63.1% (n=53)
	Refused	3.6% (n=3)
	Had cancelled	2.4% (n=2)
	Coming	7.1% (n=6)
Unaware of appointment	Refused	7.1% (n=6)
		100% (n=84)

the 23 DNAs, nine (39%) had hospital transport booked.

Table 2 shows the results of phoning patients in advance to remind them of their appointment (group II).

Five of the 70 telephone numbers were either not listed or were incorrectly listed on the hospital database; these numbers were subsequently obtained from the directory inquiry service. Six potential DNAs were prevented (those who had not been aware of the appointment and agreed to attend). Eleven vacant appointments were identified in advance: six patients were unaware of their appointments and refused to come; three were aware but did not wish to attend (though they had not cancelled); and two had cancelled already but were still listed to attend the clinic. The final total DNA rate for group II was 15/84 (17.8%). These comprised the 11 *expected* DNAs, plus two whom hospital transport failed to collect (neither of them was on record as having transport booked), plus two whom we were unable to contact (no telephone/number not available). The group II *unexpected* DNA rate was reduced to 5% as a result of the intervention, from a potential 21% (if the 11 expected and six prevented DNAs are included). Apart from the two DNAs who were failed by hospital transport, all patients who agreed in advance to attend did so. The reasons for non-attendance for group II are given in table 1. Of the 15 DNAs, three had hospital transport booked.

For both groups combined, 134 patients were given 162 appointments (some had two to three appointments during the course of the 14 clinics). Forty one patients had a record of dementia (31%). Of these, 18 failed to attend their appointment (44% DNA rate), whereas of the 93 patients without dementia, 15 failed to attend (16% DNA rate;  $p < 0.001$ ).

Nine patients were repeated non-attenders (more than two serial DNAs in four months). Twenty per cent of all appointments (33/162) were new referrals. In group II, 20% of all patients used hospital transport. Poor mobility or dementia were the reasons for transport use. Most elderly patients were easily contactable, as only a small proportion did not have telephones. No patients raised objections to being phoned and most were very grateful for the reminder call. The phone calls took three to five minutes a patient.

## Discussion

The consequences of non-attendance at clinics are particularly important in the elderly because of their high DNA rates, expensive use of hospital transport, and their degree of illness

and high mortality. In these patients, follow up is important and they deserve prompt medical attention when necessary, so it can be argued that waiting lists should not exist for geriatric outpatients.

The reasons we found for DNA at care of the elderly clinics were similar to those of other audits,<sup>1-6</sup> except for the 13% of our patients who were failed by hospital transport: a problem to be expected in an elderly population. The number of patients with dementia who failed to attend clinics is interesting but unsurprising. As our results showed, over 40% of the patients with dementia failed to attend (compared with 16% of those without dementia), emphasising that a special effort is needed to remind these patients and their carers of the appointment. Many patients with dementia arrive to clinics unaccompanied, particularly if they are collected by hospital transport. Reminder calls seemed to be effective for these patients (or their carers), as no patient who agreed in advance to attend clinic subsequently failed to show up.

The potential benefit of this study is not only in increasing attendance rates but also in identifying vacant appointment slots. There is the potential to see urgent referrals in these slots at short notice. This may even prevent an acute admission, as general practitioners are often amenable to sending a patient for urgent clinic assessment rather than to casualty departments for admission, the latter often being their only option of getting a patient seen promptly.

Almost all patients with phones were contacted on first attempt, possibly because the elderly tend to stay indoors more than younger patients who go to work, making contact very successful in this group of patients. Medical staff made the reminder calls for this audit; however, on a regular basis clerical or voluntary staff could perform this activity. It would need to be performed consistently to be worthwhile, as patients may come to depend on the reminder calls (which could be a potential disadvantage of this exercise). There would need to be clear communication with the appointment secretaries and the hospital transport department. Patient deaths need to be similarly communicated from general practitioners to the hospital to prevent mishaps such as trying to phone deceased patients, or hospital transport calling to collect deceased patients, as occurred on one occasion during the study.

There were several limitations to this study: vacant appointments were not used appropriately, the transport department was not informed of cancellations, and the necessity of the appointments was not studied. Although the numbers were small, we did obtain an encouraging result. A larger randomised controlled trial of intervention would be more conclusive. This would assess the improvement in non-attendance rates by including a concurrent control group. In such a trial attempts would be made to use vacant appointments appropriately, communicate cancellations to the transport department, determine admission rates, and assess costs.

**Key points:**

- Clinic non-attendance is an important problem in the elderly.
- Surveys show that up to 50% of non-attenders say they forgot about their appointment, and reminder letters/calls are effective for other specialties.
- Reminder calls to the elderly are well received, and very effective in increasing attendance rates.
- Vacant appointments can be identified in advance, allowing urgent referrals at short notice.
- Patients with dementia are significantly more likely to be non-attenders, and they and their carers need to be specially targeted for reminders.

**CONCLUSIONS**

A phone call reminder to elderly patients in advance of their clinic appointment is a feasible and worthwhile exercise, with potential for cost cutting. It increases attendance rates and has potential for reducing clinic waiting list times. It enables vacant appointment slots to be identified, allowing urgent assessment of patients

referred by general practitioners, possibly preventing a hospital admission. Patients with dementia are more likely to be non-attenders at clinics, and their carers should be specifically targeted to ensure that they are given all appointment details.

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