

# Telephone reminders to reduce non-attendance rate for endoscopy

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## SUMMARY

**Non-attendance at clinics and endoscopy units wastes resources and lengthens waiting lists. In a previous study elsewhere, a substantial proportion of patients claimed to have forgotten their appointment. We therefore assessed the value of telephoning patients a week before their booked day-case endoscopy. An observation period of two months was followed by an intervention period of two months in which patients were contacted by phone and asked if they wished to come for their investigation. A maximum of three separate attempts were made to contact each patient. Patients cancelling the appointment were replaced by others on the reserve list. The non-attendance rate was expressed as the percentage of unused beds.**

**During the observation period 56 patients were admitted and 18 beds were unused. During the intervention period it was possible to contact 73 of 88 patients and 8 of these cancelled. 87 beds were available and 83 patients were admitted. When clerical error, overbooking and failure to replace patients were taken into account, the non-attendance rate declined from 23.3% during the observation period to 5.7% during the intervention period ( $P < 0.05$ ). The intervention seemed more effective in reducing non-attendance in outpatients referrals (0/48) than in general practitioner referrals (5/40).**

## INTRODUCTION

Non-attendance for booked appointments wastes health service resources and hampers efforts to shorten waiting lists. In a series reported from Northern Ireland, nearly a third of non-attenders claimed simply to have forgotten their appointment. The authors favoured overbooking as a solution, but this is not feasible for day-case procedures or endoscopy. Noting a high rate of non-attendance for our own endoscopy lists, we initially thought long waiting times were the reason and introduced various measures to accelerate the service; however, despite a large reduction in the waiting time non-attendances remained troublesome. We therefore assessed the effect of telephone reminders a week before the appointment.

## METHODS

The study was conducted in a small district general hospital in Dublin where the endoscopy unit performs about 2000 procedures a year. A general practitioner open-access endoscopy facility for gastroscopy and colonoscopy, introduced to cut waiting times, takes about 400 referrals

a year. The average waiting time is 6 weeks. This study began with a two-month observation period in which attendances and non-attendances were recorded by source of referral (outpatient or open access). Since the number of patients attending endoscopy is ultimately determined by the number of available beds during each session, non-attendance is reflected by unused beds; the non-attendance rate is therefore expressed as the percentage of unused beds.

During the intervention phase, also two months, a gastroenterology trainee telephoned patients a week before their appointment and asked if they intended to come. He did not have the patients' notes and did not encourage questions relating to the reason for the investigation. A maximum of three separate attempts were made to contact each patient. Patients cancelling their appointment when contacted were replaced by others from the waiting list. Patients who cancelled the appointment were invited to make another appointment by phoning the endoscopy unit or to inform their general practitioner of their decision not to have the procedure.

## RESULTS

During the observation period, 74 beds were available and 56 patients were admitted (34 gastroscopies, 20 colonoscopies, 2 both); the number of unused beds was 18. During the intervention period 87 beds were available (52

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**Table 1 Attendances by source of referral in observation and intervention periods**

Period	Attend	Did not attend	Total
Observation period			
GP	27	7	34
OPD	29	10	39
Total	56	17	73
Intervention period			
GP	35	5	40
OPD	48	0	48
Total	83	5	88

GP=General practitioner; OPD=outpatient department

gastroscopies, 27 colonoscopies, 4 both), of which 4 were unused. The proportion of unused beds thus declined from 24.3% to 4.6% ( $P < 0.05$ ,  $\chi^2$ test).

Not all the failures were attributable to the patients. In the observation period 1 was due to clerical error; in the intervention period 2 were due to overbooking and 1 to non-replacement of a patient who did not propose to attend. With exclusion of these patients the attendance rates were 23.3% and 5.7% ( $P < 0.05$ ).

During the attendance period it was possible to contact 73 (83%) of the 88 patients. For the remaining 15 the phone number was incorrect or missing; 3 of these did not attend. 8 patients, on being contacted, said they would not be attending, the reasons being illness (2), work commitments (2), travel difficulties (1), unawareness of the appointment (1) and others (2). 2 patients failed to attend after confirming on the phone that they would do so.

The effectiveness of our strategy appeared related to the source of referral (Table 1). For outpatient referrals the non-attendance rate was reduced from 10/39 to 0/48 whereas for general practitioner referrals there was no change—7/34 versus 5/40. The time needed to contact the patients during this study was 2 hours per week.

**DISCUSSION**

In this study, phone reminders seem to have been effective in reducing non-attendance for endoscopy. Similar measures have been effective in reducing non-attendance rates in both elderly and adolescent clinics—from 21% to 5% and from 20% to 8%, respectively.<sup>2,3</sup> A combination of phone reminders and a preclinic information pack reduced the non-attendance rate in a diabetes clinic to the very low level of 1.4%.<sup>4</sup> In the present instance, the calls were made by a medical trainee specialist, and we cannot know whether better or worse results would be obtained by a less expensive person working to a protocol.

Phone reminders are not without pitfalls. First, the system depends on having up-to-date phone numbers for the patients. In our study, nearly half the patients who could not be contacted had either an incorrect phone number or no phone number in their records. Social deprivation may have contributed but our view is that the deficiencies were mainly due to the hospital’s lack of an electronic patient database with accurate information.

A notable feature of the results was the difference by mode of referral. All the non-attenders in the intervention group were open-access referrals. This may be a chance finding, or it may reflect differences in what patients were originally told about the investigation and the need for it.

Other methods to reduce non-attendance are possible. Reminder letters are said to be of limited benefit.<sup>5</sup> Systematic overbooking may sometimes be reasonable but is not appropriate for endoscopy services. Non-attendance is less troublesome in the private sector, and in the United States has been related to source of payment.<sup>6</sup> Requiring a refundable deposit may be an effective strategy but has administrative, social and political drawbacks. Scott and co-workers<sup>7</sup> looked at the effect of a colorectal nurse practitioner who gave patients information and support; the non-attendance rate fell from 15.5% to 2.5%. Finally, the UK National Health Service modernization agency is looking at several measures to shorten waiting lists and improve attendance rates, notably by letting patients choose their own date for the appointment at the time of general practitioner referral.<sup>8</sup>

From the present study we conclude that phone reminders can be a useful adjunct to other strategies for encouraging patients to keep their appointments.

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