

Why did patients default follow-up at Accident and Emergency department and ways to reduce default rate? - A retrospective study

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The follow-up clinic of the accident and emergency department is important in terms of risk management and quality assurance. Its purpose is defeated if patients do not return for the scheduled follow up. In this study, the reasons why some patients defaulted were investigated by telephone enquiry. It was found that about 30% of patients defaulted each day. Among those who could be contacted, almost one third said their illnesses have recovered or improved. A significant proportion of them suffered from sprains, minor burns or scald. The personal, familial or socio-economic factors also prevented some of them from returning. There were patients who did not come back because they have been admitted to hospital before the appointment, suggesting that patients with certain conditions are not suitable candidates for follow-up. The telephone enquiry of these defaulted patients provide a good opportunity for the patient to voice their views and opinions on the service they received and patient satisfaction can be enhanced by telephone enquiry. Based on the findings of this study, recommendations on service improvement has been proposed including a detailed study on the feasibility of the telephone follow-up system, and rescheduling the time and date of follow-up for the convenience of the patients. (*Hong Kong j.emerg.med.* 2000;7:207-212)

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Introduction

The accident and emergency department (A&E) provides an important channel whereby patients are admitted into the hospital for as many as 50% in-patients are admitted through the A&E. On the other hand, of all patients who attend the A&E, only about 20-25% require admission and the rest is usually discharged home with treatment. A few of the latter group of patients may need to return for follow-up as determined by the doctor caring for them. In 1998/99, a total 98,041 patients were followed up at the A&E of Hong Kong.¹ Over the same period a total of 2,360,679 patients attended the A&E in Hong Kong.²

In the accident and emergency departments (A&E)

in Hong Kong, it is a common practice that some patients who have attended the A&E are asked to come back to the department for follow-up. The apparent purpose of the follow-up is to monitor the progress of the patient's condition after the initial treatment given at the A&E. Unfortunately, some patients default the follow-up. While the exact default rate is not known, our common experience suggests that about 30% will default.

The reasons for defaulting follow up are not known, and neither are their outcomes. Little research was done on this aspect.³ Have their conditions been cured or have they worsen? Have they sought medical treatment again at another place or admitted to the hospital, or even passed away? Or were they just too busy and had no time to keep their appointment? The objective of this study to look into this group of patients in detail, study their outcomes and explore the reasons for defaulting. Hopefully recommendations can be formulated so that the attendance rate can be improved and the purpose of the A&E follow-up clinic fulfilled.

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Methodology

During the month of October 1999, the case notes of patients who defaulted follow-up at the A&E department of Prince of Wales Hospital were reviewed. The follow up clinic operates in the morning, 7 days a week. Relevant data including demographic information were obtained and those data not available in the notes were obtained by telephone enquiry. At the end of follow-up clinic each day, the case notes of those defaulted patients were grouped together and the required data is input into the Microsoft Excel software by a clerical staff who were taught the use of the software.

The input data would be checked by the author, comparing it with the original case notes. This was essential as the clerical staff may have difficulty deciphering the hand-written notes. Any amendments would then be made.

Telephone enquiry

Those patients who have defaulted were contacted via telephone by the author himself within 3 days of the supposed follow-up appointment. Attempts would be made the next day if the initial call(s) failed to reach the patients. Telephone enquiry were considered to have failed (NA) after three or more attempts on different days failed to establish contact with the patients. The data obtained were immediately input into the computer by the author himself after the telephone enquiry.

Results

In the month of October 1999, there were 651 scheduled cases and 180 patients defaulted follow-up, giving a mean default rate of 27.6%.

Of these cases, there was slightly more male defaulters (male to female ratio 17:19). However, when each sex group is broken down into different age ranges, it was noted that the number of female defaulters far exceeds that of the male counterpart in the age group 11-20, whereas the reverse happens in the age group 21-30. (Figure 1)

Majority of the defaulters are less than 50 years of

age (81%) with the largest group in the age 21-30 (24% of total). (Figure 2)

Majority has not been followed up before (88%), in other words, when people defaulted they usually did so in their first follow-up. There was no significant sex difference in those who defaulted their first follow-up (male:female=81:77).

Telephone enquiry was only successful in 67% of cases and the rest could not be contacted despite 3 attempts of calling on different dates. For those patients who could be contacted, the reasons given for not coming for follow-up are shown in Table 1.

It is observed that about one-third of defaulters did not return for follow-up because their illnesses have recovered or have improved.

As to whether sick leave was issued or not did not seem to affect the default rate of those who had to work or attend school.

For those who claimed they have recovered or improved, the problems they have had on first presentation was shown in the Table 2.

Infection and soft tissue injury or sprain constitute the largest group of patients who did not return for follow-up because they have improved or recovered. Twelve percents of those who defaulted were subsequently admitted to the hospital before the follow-up date. Their initial diagnoses and final diagnoses/outcomes are shown in the Table 3. It should be noted that the decision to admit individual patient was made by the specialty doctors who were consulted to see the patients at A&E department, and therefore was subjected to the doctors' judgement.

Discussion

In this study, patients who defaulted follow-up constitute more than one-fourth of the total number patients scheduled for follow-up. Resources have been wasted in terms of manpower involved in preparing for the scheduled follow-up (e.g. printing follow-up slip, storing and retrieving old case notes

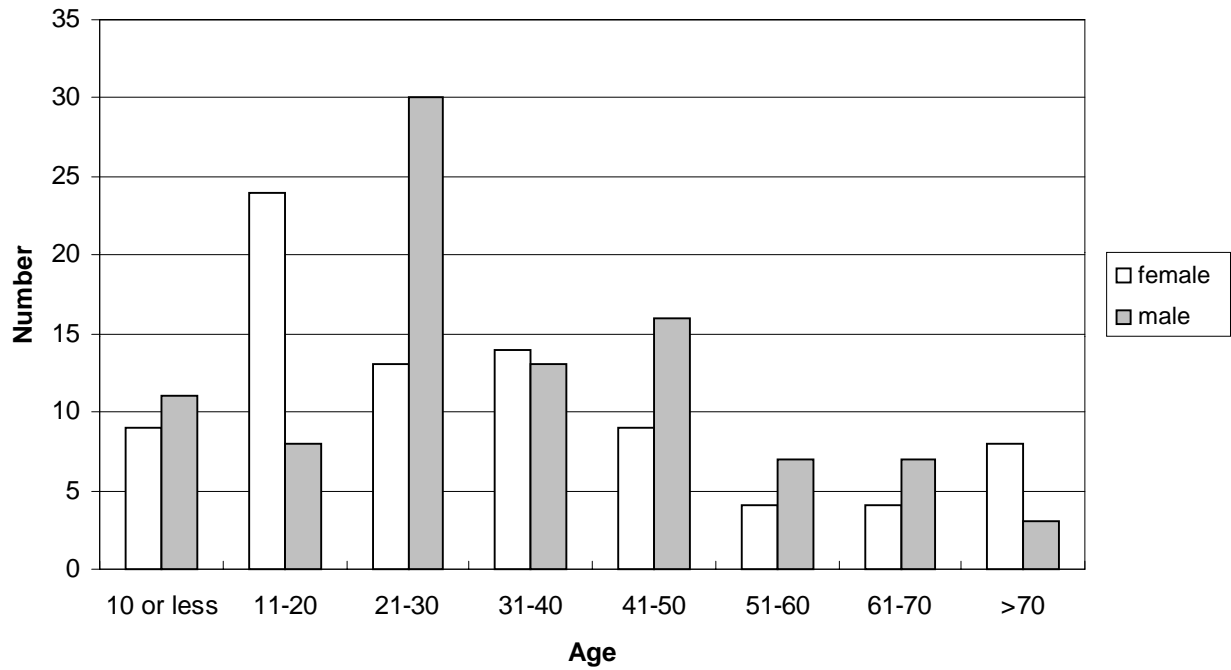


Figure 1. Sex distribution of defaulters according to age groups.

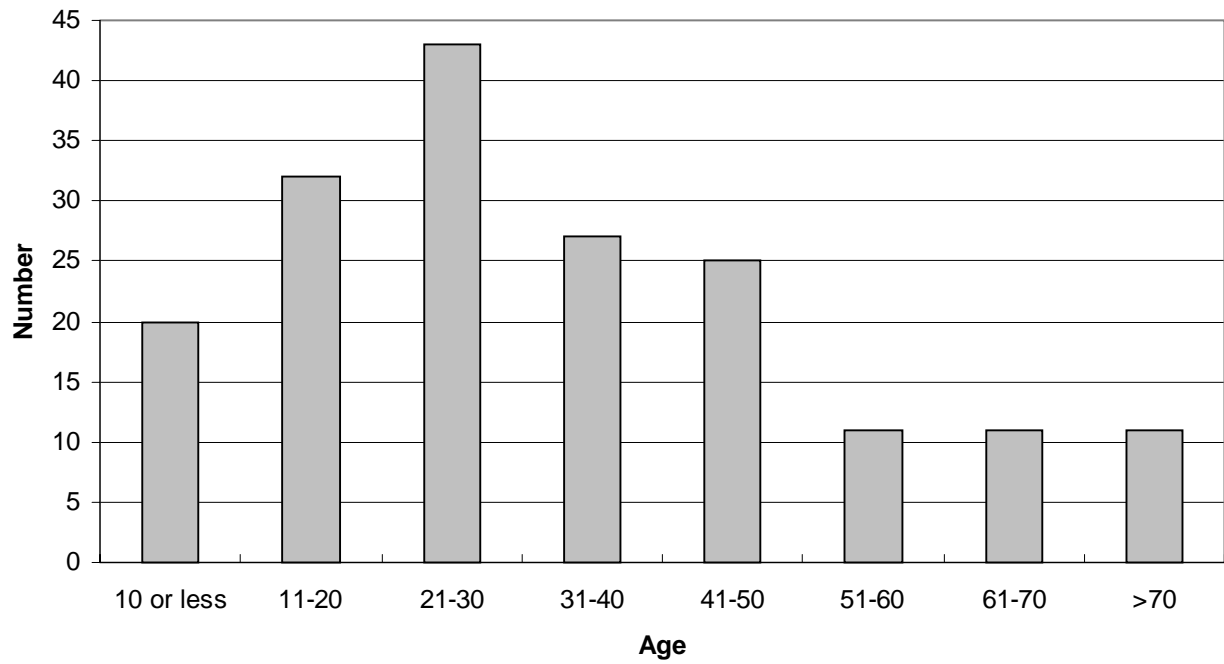


Figure 2. Age distribution of defaulters.

Table 1. Reasons for not returning for follow-up.

Reasons of not returning for follow-up	Number of patients (%)
Recovered or improved	43 (35%)
Forgotten to come	14 (12%)
Admitted to hospital	14 (12%)
Had to work/attend school	25 (21%)
Was in China	6 (5%)
Not improved; went to see private doctor	6 (5%)
Came late and missed appointment	3 (2.5%)
Carer couldn't take patient back	3 (2.5%)
Confusion with fu date	2 (1.6%)
Lost follow up appointment slip	2 (1.6%)
Will be followed up elsewhere	1 (0.8%)
Not happy with the attitude of the doctor at the follow up clinic (thought that he was not very 'professional')	1 (0.8%)
Total	120 (100%)

Table 2. Problems on initial presentation to A&E.

Diseases	Number
Infections	15
Scalds/burns	4
Sprains	9
Eye problems	3
Animal bites	2
Miscellaneous	7
Other painful conditions	5

and laboratory results). On the other hand, patients who may need to be seen sooner may have to be followed up at a later date because earlier appointment slots have been occupied by those who defaulted, as there is a definite quota each day. It is therefore desirable that the default rate can be reduced to a minimum. However, before any recommendation can be made and studied in detail, some background information has to be obtained about these defaulters. By identifying their characteristics and the reasons of not coming for follow up, recommendations can be made to improve the current problem.

There are two approaches to improve the attendance rate at the follow up clinic. One is to review the conditions that are likely to recover or improve with time. In this study, almost one third of patients did not come for follow-up because their conditions have recovered or improved. Their diagnoses on

initial presentation were sprain, minor burns or scald and when one look at the natural history of these conditions, most will recover or improve with time. Therefore, patients with these conditions may instead be asked to return to see the doctor only if their conditions persist or worsen instead of scheduling them for follow-up. The group of patients with various infections was difficult to categorise as their conditions were too heterogeneous and the sample size too small.

The second approach is to identify the group of patients who are more likely to default follow-up and therefore require special attention. Consideration should be given to the personal, familial or socio-economic factors that may have prevented them from keeping their follow up appointment. Practical arrangements can then be made to ensure that they can come. In this study, one fifth (20%) of defaulters claimed that they had to work or attend school even though sufficient period of sick leave was given till the follow-up date. A follow-up date on Sunday or a public holiday may encourage them to attend and the quota of patient may be increased on these days. In addition, an evening session of follow-up clinic could be considered so that those working in the daytime can come after work. Even more importantly the proposed follow-up date should be discussed with the patient before it is finalised, so that any practical difficulties can be circumvented.

Table 3. Outcome of defaulted patients who were admitted to hospital before the scheduled follow-up.

<i>Initial diagnosis</i>	<i>Final diagnosis</i>	<i>Outcome</i>
Viral infection	Same	Discharged
UTI; bilateral loin pain	Same	Discharge
UTI with fever	Same	Discharge
Syncope	Same	Discharged
Right submandibular infected lymph node	Right submandibular abscess	Need operation; discharged
Gum inflammation and skin scratch mark	Heart failure	Discharged
Generalized Erythema	Drug allergy	Discharged
Fever X Ix and suspected chest infection	Same	Admitted to another hospital; discharged after 7 days
Dermatitis skin	Psychosis	Admitted to psychiatric hospital; still in hospital after 3 weeks
Chest infection	Same	Discharged
Bloody diarrhoea	Recurrent of bowel cancer	Discharged
Upper respiratory tract infection (Viral)	Right knee arthritis	Discharged
Suspected fracture of left zygoma bone	No fracture	Discharged

Twelve percents of patients did not return for follow up because they have been admitted to hospital after discharge from the A&E department. This implies that when they attended the A&E department they should have been admitted to the hospital rather than discharged with follow-up. Although the sample size is small, this may well suggest that patients with these conditions may not be suitable candidates for follow-up. Although none of these patients died subsequently, there exist a risk of possible delay in diagnosis and management with potential medico-legal consequences. In any case, feedback should be given to the doctor who initially managed the patient in order to improve the quality of patient care. However, this is only possible if these defaulted patients can be traced via telephone on a regular basis.

In this study, it was found that the default rate was highest among the age group 21-30 (approximately 25%), making them the high-risk group for defaulting follow-up. Teenage female patients also constitute a significant proportion of patients who defaulted follow up. Therefore, in future special

attention should be paid to these groups of patients when arranging follow-up appointments.

Though not included in this study, many patients contacted via the telephone expressed appreciation on our initiative to call and enquire about their progress. Patient satisfaction is enhanced by the telephone enquiry. Indeed, a properly and carefully designed telephone follow-up system should be considered, targeting not only at those patients who may default follow-up but also as an option for patients to choose whether to return to the follow up clinic or stay at home for the telephone follow-up. This has a great potential of reducing the already limited resources while maintaining or even enhancing the quality of care. This point is particularly attractive as most public hospitals now face the most serious cut in budget while more patients are now using the public hospital services due to improvement in the quality of care in the public hospitals. The economic recession and unemployment problem in recent years have also encouraged the public to use the public health services which are either heavily subsidised by the

government or entirely free (e.g. the A&E services). In addition, new or innovative services are also possible with the use of telecommunication technology. This also improves the care providers' image to the public. The telephone follow-up system is welcome by those patients who may not need or cannot return for follow-up in person because of various medical or socio-economic reasons and therefore it is worthwhile exploring the feasibility of this system in the local A&E departments.

Due to the time constraint, the study was performed over one-month period. It is preferable to increase the sample size so that the validity and reliability of the results may be further improved. Moreover, by performing the study over a longer period, any seasonal variation and effects of weather change may also be studied. It is also worthwhile to compare those who attended the follow-up and those who defaulted, so that their differences, if any, can be identified and valuable information gathered from this.

A&E practice has long been regarded as a high risk area in patient care as the time the physicians spend with the patients is sometimes short which may result in inadequate evaluation and communication. For example, in a review of 105 negligence claims against accident and emergency departments, it was found that most errors leading to claims appear to have been simple failures of history taking, physical examination, interpretation of radiographs, and communication. About half the claims were found to be indefensible.⁴ However, it is important to note that many of the errors in the A&E department are preventable⁵ It is possible that some of these errors may be picked up at the follow-up clinic, which therefore plays an important role in risk management. The defaulters therefore should receive special attention.

To the author's knowledge, this study is the first performed locally on the subject of follow-up patients in the A&E department. It is hoped that more studies on A&E follow-up clinics may follow so that useful information can be obtained to further improve the service.

Conclusion

The default rate of the A&E follow-up was significant, with three out of ten patients defaulting, most of them on their first appointment. Almost one third of patients did not return because their conditions have recovered or improved, and a significant proportion of them suffered from sprains of various joints, and minor burns or scald. The default rate was highest among the age group 21-30, amounting to almost one fourth of all the default patients. Special attention may need to be paid to these patients when we plan to arrange follow-up for them. The personal, familial or socio-economic factors are also important in that they may have prevented them from coming back for follow-up. Twelve percents of patients did not come because they have been admitted to hospital after discharge from the A&E department, suggesting that patients with these conditions may not be suitable candidates for follow-up. The feasibility of telephone follow-up in the local A&E practice may warrant further study.

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