

An opinion survey on patient acceptance of a two-day medication supply policy in emergency departments

WF Tang, CH Chung, TSF Wu, KK Lai

Objective: To obtain an idea on patient acceptance of a two-day medication supply policy in emergency departments, an opinion survey was carried out at the Accident & Emergency (A&E) department of North District Hospital. **Methods:** Questionnaire were distributed to 200 ambulatory patients attending the A&E department on 4 April 2000, asking for their opinions on the reasonable duration of medication supply and its possible impact on emergency department misuse. The questionnaires were collected and the data analysed. **Results:** A total of 78 questionnaires (39%) were returned. Forty-nine respondents (62.8%) accepted that dispensing two days of medications from emergency departments reasonable. Ten out of the 27 patients who disagreed on two-day supply (37.0%) considered that a three-day supply would be optimal. More than half of the respondents (52.6%) agreed with the hypothesis that a two-day supply policy would discourage misuse of emergency department service. **Conclusion:** The great majority of patients attending A&E departments supported the prescription of two to three days supply of medication. This policy has important resource implication. However, its possible impact on misuse of emergency department service is controversial. (*Hong Kong j.emerg.med.* 2002;9:3-9)

Keywords: Drug prescriptions, emergency service, health care costs, health services misuse, patient satisfaction

Introduction

The annual Accident & Emergency (A&E) department attendance at public hospitals in Hong Kong has been rising steadily since 1991 – the year of establishment of the Hospital Authority (data from Hospital Authority Executive Information System). Even though the population of Hong Kong has also been increasing steadily during the same period (Hong Kong Government census statistics website: <[http://](http://www.info.gov.hk)

www.info.gov.hk>), the rate of increase in attendance has exceeded the population growth. (Table 1) One characteristic of the A&E attendance was the high proportion of semi-urgent and non-urgent cases, which constituted more than three-quarters of the total attendance in 1999. This phenomenon was supported by the low ambulance attendance rate, which accounted for only 12% of the total in 1999. Recently, misuse of A&E service is a hot debate topic and has attracted much media interest.¹⁻⁴ There are two approaches to this problem – decreasing the demand or increasing the service. The majority of administrative interventions are targeted towards the former. Limiting the spectrum and duration of medication supply from emergency departments were suggested by a group of private practitioners of the North District in a lunch hospital meeting on 27 November 1999 – arbitrarily for two days only as commonly practised in private primary care. Moreover, as A&E prescriptions from public hospitals were entirely free, this might also have important cost-

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Table 1. Annual A&E attendance and population of Hong Kong in the 90s.

Year	Total A&E attendance (x 1,000)	Population of Hong Kong (x 1,000)	A&E attendance per 1,000 population
1991	1,289	5,691	226
1992	1,372	5,747	239
1993	1,453	5,860	248
1994	1,685	6,008	280
1995	1,923	6,133	314
1996	2,074	6,294	330
1997	2,129	6,502	327
1998	2,303	6,687	344
1999	2,377	6,843	347

saving implications in this era of 'Enhanced Productivity Programs' for public organizations. However, there was concern that this might create bad hospital image and poor public relationships. As a result, an opinion survey was carried out in order to obtain an idea of patient acceptance of two-day medication supply from A&E departments.

Methods

A one-day survey was performed in the A&E department of North District Hospital on 4 April 2000, with a target of 200 patients. This date was chosen because it was the Ching Ming Festival – a public holiday. As private and public clinics would be closed on that day, the proportion of 'non-emergency' attendance was expected to be much higher than usual. A total of 200 questionnaires in Chinese were distributed to ambulatory Chinese adult patients at the triage station. They were requested to return the questionnaires to the triage station after completion. The following questions were asked:

1. Is it reasonable for A&E departments to supply medications for two days only? If not, what should be the optimal duration?
2. After two days, when your illness have not recovered but your medications have been finished, will you consult private practitioner, public general clinic, emergency department, herbalist or private dispensary? Or will you just observe for a few more days or take other actions?
3. After two days, when your illness have not

recovered but your medications have not been finished yet, will you consult private practitioner, public general clinic, emergency department, herbalist or private dispensary? Or will you just continue the medications for a few more days or take other actions?

4. Do you think that a two-day medication supply policy will decrease misuse of the emergency department service? And the reasons for your opinion?

The questionnaires were collected. The data were simply counted and analyzed. Patients' comments were categorised.

Results

A total of 78 questionnaires (39%) were returned. Some questions were not answered and some questions had multiple answers. Forty-nine respondents (62.8%) supported that dispensing two days of medications from emergency departments (ED) was reasonable. (Figure 1) Ten out of the 27 patients who disagreed on two-day supply (37.0%) considered that a three-day supply would be optimal. (Figure 2) It was interesting to note that nobody suggested duration of more than seven days and three suggested one day only. After two days, the great majority of those without medication would seek medical attention again. (Figure 3) However, a substantial proportion of those with medication would continue the treatment. (Figure 4) More than half of the respondents (52.6%) agreed with the hypothesis that

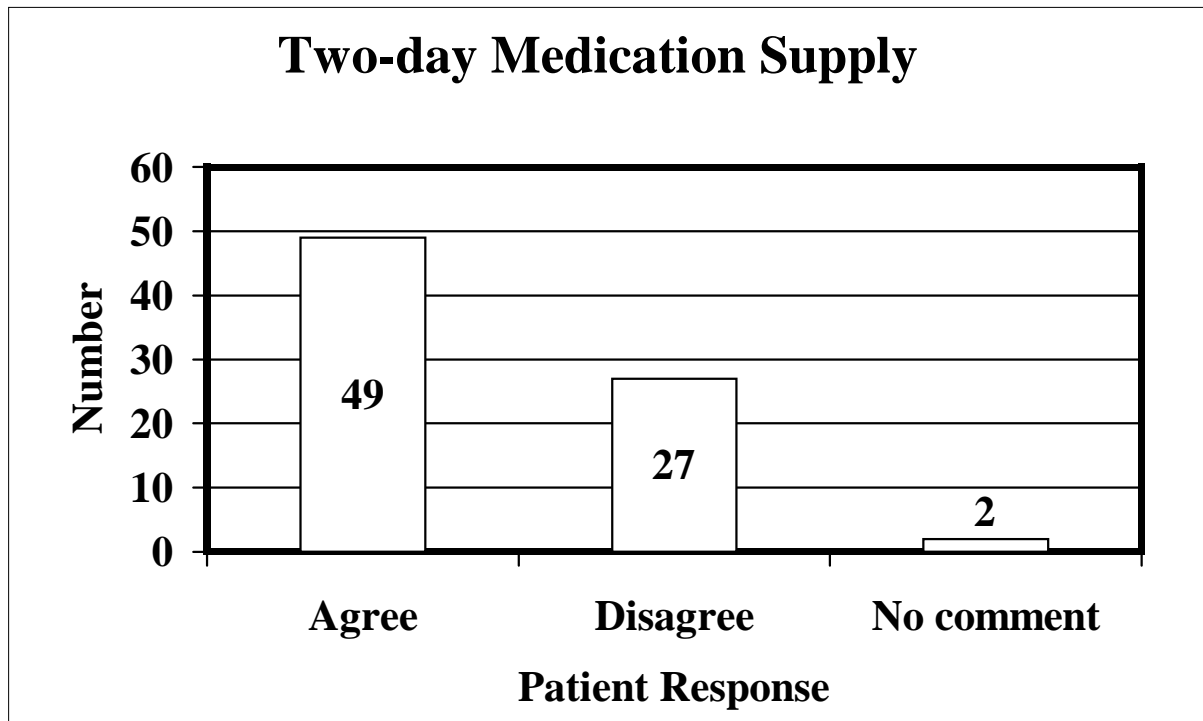


Figure 1. Patients' acceptance of 2-day medication supplies policy.

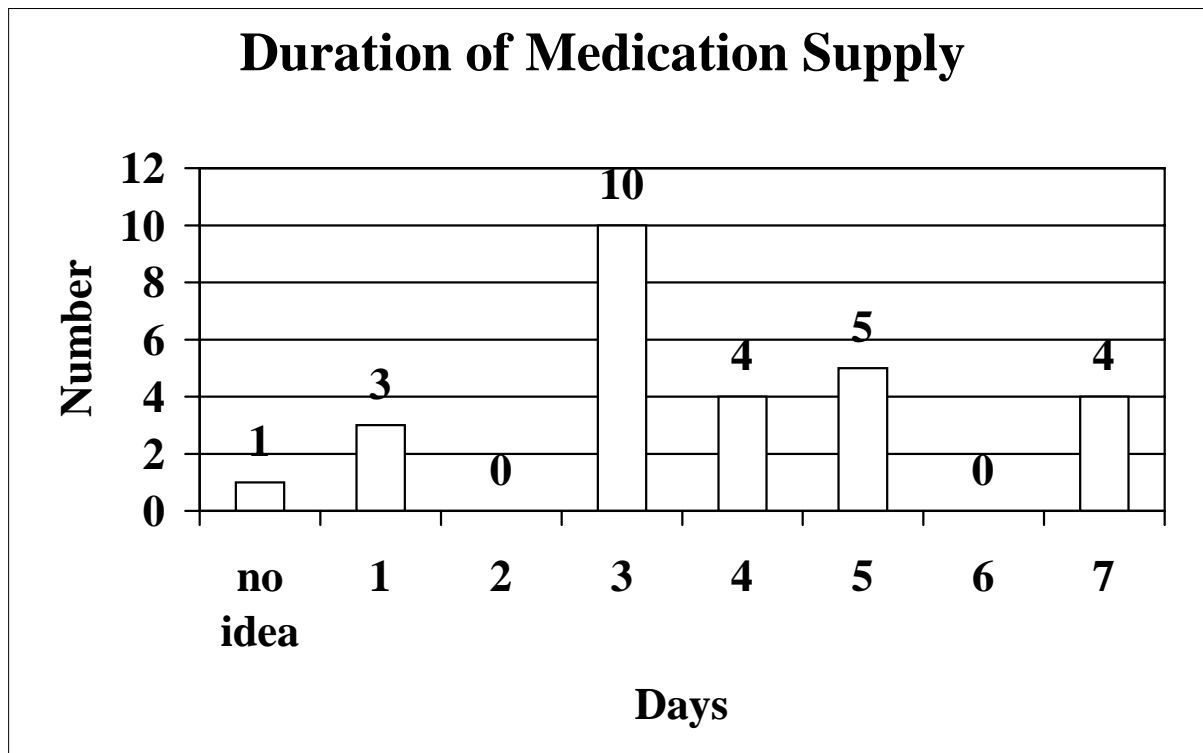


Figure 2. Patients' suggestion on optimal duration of medication supplies.

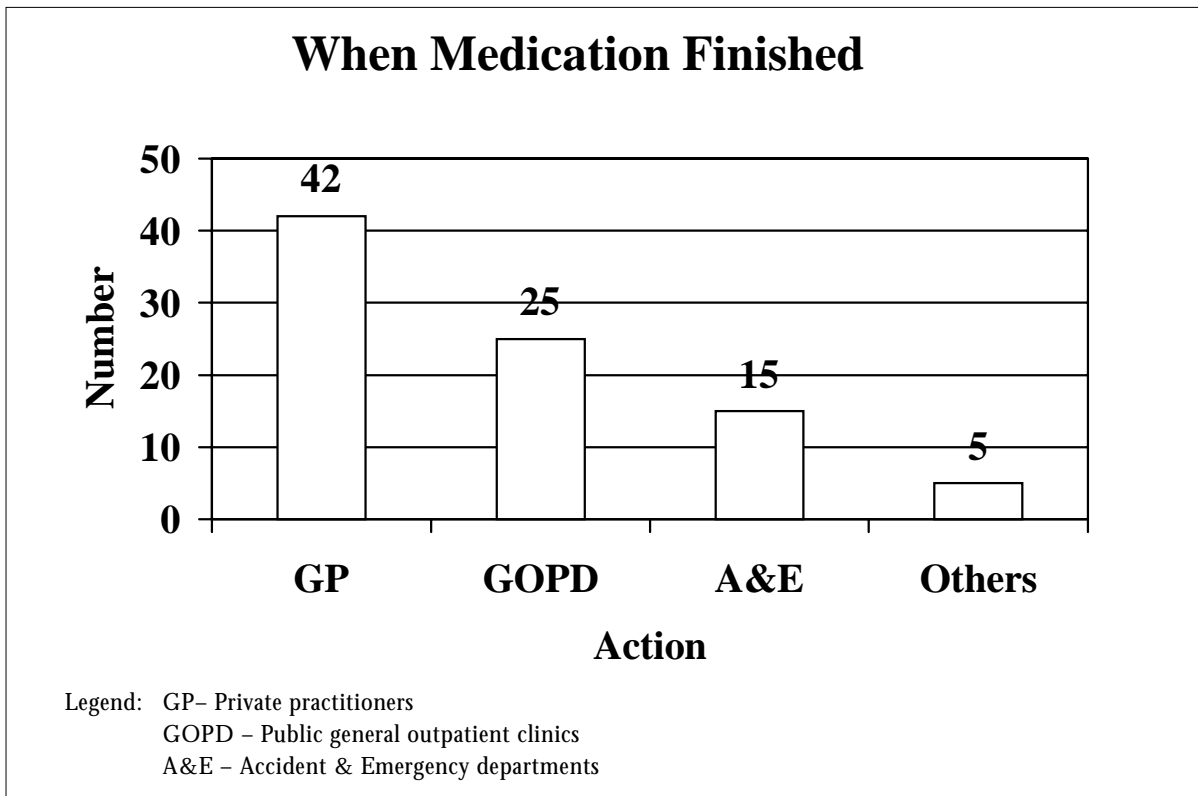


Figure 3. Patients' actions after 2 days, when medication finished.

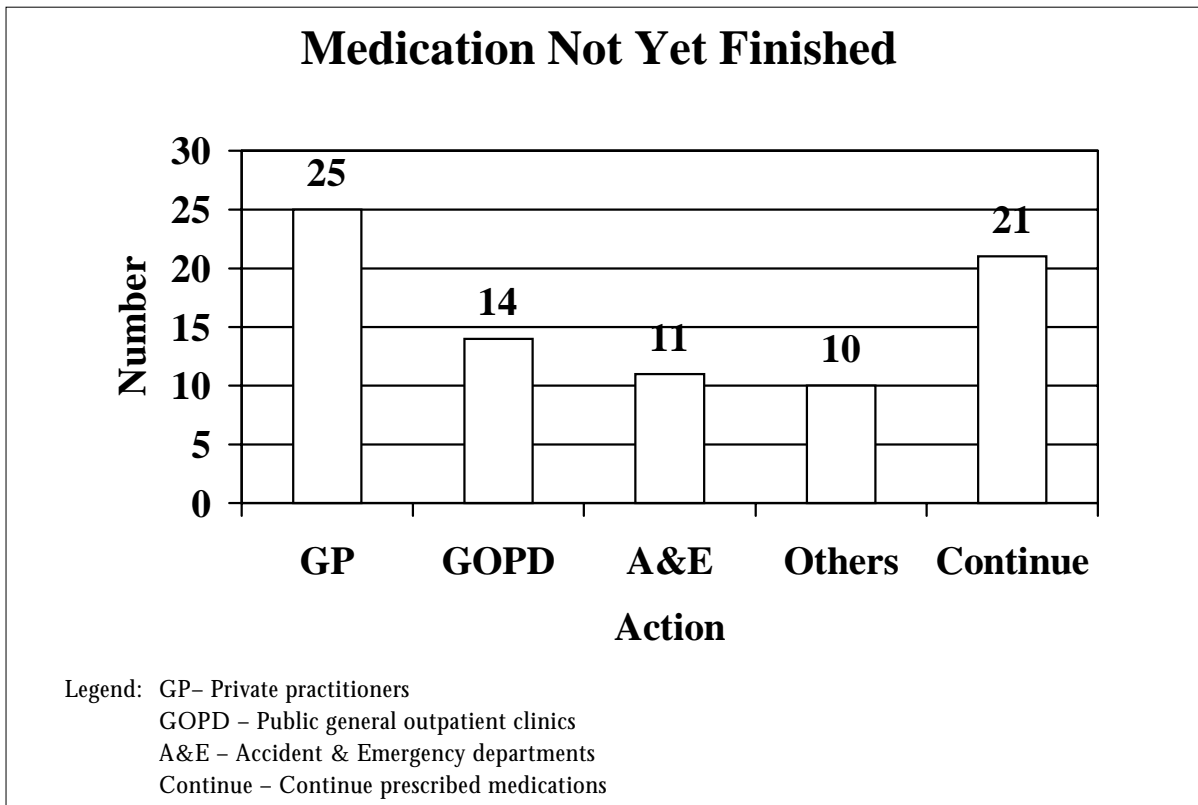


Figure 4. Patients' actions after 2 days, when medication still available.

a two-day supply policy would discourage misuse of emergency department service. For those who agreed with the hypothesis, they suggested that it might discourage such patients as those with common cold and that two days would be enough to tide over the acute stage. For those who disagreed with the hypothesis, they claimed that it was human right for convenient and quality emergency care. Patients came to emergency departments because they were free, comprehensive, convenient, available round-the-clock, accessible and because of inadequate primary care services. Limiting the duration of medication supply would encourage A&E re-attendance, drug resistance and spread of diseases. Moreover, some suggested that those who intended to misuse would continue to misuse anyway.

Discussion

Emergency Medicine is a discipline of Medicine that deals with the acute and life threatening aspect of medical care. Certainly, long term treatment is outside its ambit. In Hong Kong, it has been a common practice to prescribe two or three days medications in both private and public primary care services. However, there is no consensus on the optimal duration of drug prescription in emergency departments. Surprisingly, there has been very little in the literature on medication policy in emergency medicine practice.

There are a number of arguments for limiting the duration of drug prescription in emergency departments. The role of emergency departments is to deal with acute medical conditions. Once the acute conditions have been stabilised, patients should be encouraged to seek appropriate alternatives for continuing care – this is especially welcomed by the private sector. It has been shown that some patients attended accident and emergency departments for reassurance and advice, and were less concerned with the medication prescribed.⁵ Moreover, there are two forms of medication non-compliance – primary non-compliance for failure to collect medications and secondary non-compliance for failure to take the medications after collection.⁵ Overseas experience

showed that cost was the most common reason for non-compliance.⁶ A survey on emergency department patients about to be discharged reported that 47% said that they would not be able to get their prescriptions filled in the next 24 hours, primarily because of cost. Even though A&E prescriptions in Hong Kong were entirely free, statistics from different hospitals showed that about 11-25% A&E prescriptions were uncollected (Hospital Authority, Medication Order Entry data on file). All accident and emergency staff should be aware that a significant proportion of patients does not collect their prescribed medication.⁵ The magnitude of secondary non-compliance after A&E attendance in Hong Kong is unknown. All the above factors may explain the 'surprising' result of patient acceptance of two to three days of medications after A&E attendance – 59 respondents (75.6%). It was also important to note that none of them suggested supply of medication for more than one week. It was interesting to note that a high proportion of the respondents would seek medical consultation again if not improving after two days, even when medications were still available. Limiting the duration of medication supply may have cost-saving implication in this era of 'Enhanced Productivity Programs' in the public sector and may also prevent unnecessary wastage. This result may serve as a guide for future medication policy in emergency departments. In addition, this policy may even discourage 'drug-seeking' behaviour⁷ and self-medication of 'left-over' drugs.

On the other hand, there are arguments against limiting the duration of drug prescriptions. A&E doctors may consider their professional autonomy and quality of care threatened. This is especially true with antibiotics and antiviral agents, when partial treatment will encourage drug resistance and spread of disease. Diseases may recur or recovery delayed if patients fail to seek continuing care. Hospital image and public relationships may be jeopardised. The result indicated that a substantial proportion of patients would continue medication and observation if drugs were still available. On the contrary, patients may return to A&E departments for more medication and this will result in undesirably high re-attendance rates.

Emergency department overcrowding is a worldwide problem.⁸ Surprisingly, more than half of the respondents agreed that limiting medication supply might discourage misuse of emergency department service. However, the opposition group was only marginally outnumbered (41:36). Administrative measures of limiting the duration or range of medication to discourage attendance are undesirable. A&E misuse is usually a signal of inadequate healthcare service, with the emergency department being the first point of impact.⁹ Many patients attending public hospital emergency departments may not require emergency services, but almost all have health care needs that deserve medical attention. "What the issue really comes down to is limited financial and human resources. The cracks in the foundation are felt first in the ED, because we never close our doors. The ED is the ultimate safety net, but now that is bulging" – Dr. Charlotte Yeh.¹⁰

There were a number of limitations in the study. Both the number of questionnaires distributed and the

percentage collected were small. The duration of survey was short – within one day. The questionnaires were confined to literate Chinese patients in North District attending the emergency department with 'minor ailments'. There was no patient epidemiological data or patient outcome data. However, as Hong Kong is small and its population movement unrestricted, the study result can be generalised to represent the public's views on medication supply and ED misuse. This information may help the formulation of future ED medication policy.

Conclusion

The great majority of patients attending A&E departments supported the prescription of two to three days' supply of medication. This has important resource implication. With some flexibility incorporated, this may serve as the basis for future A&E medication policy. Its possible impact on misuse of A&E service is controversial.

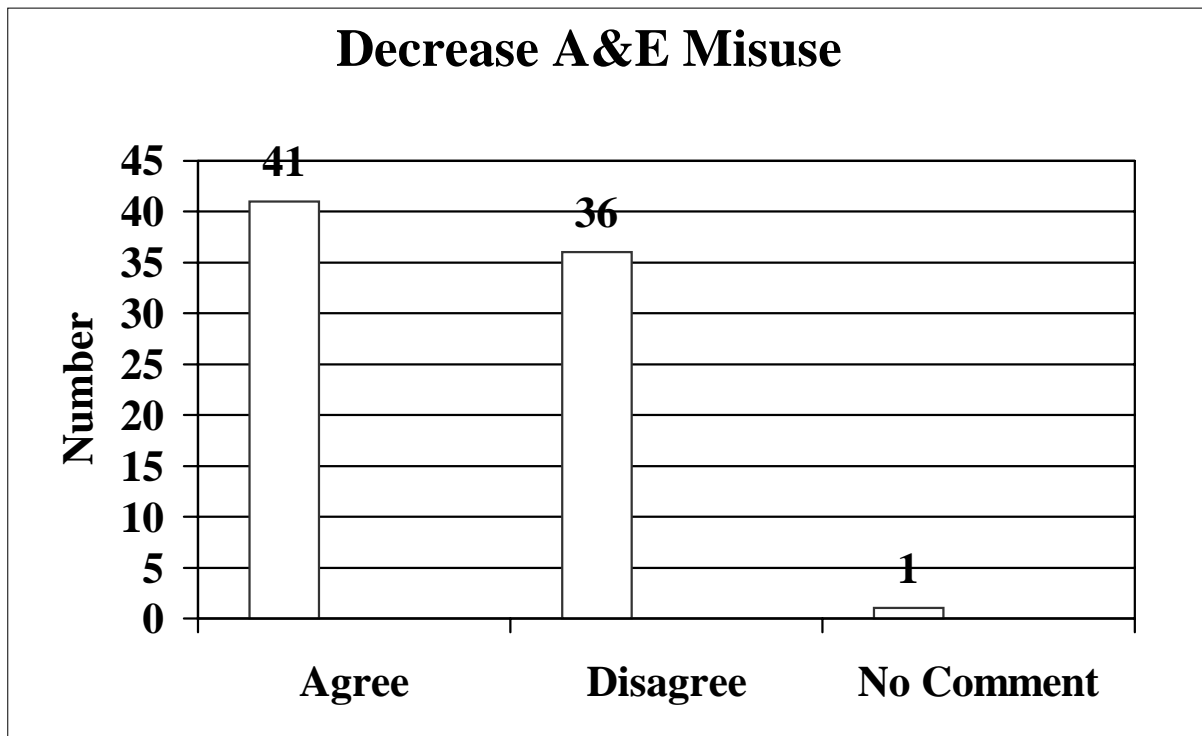


Figure 5. Patients' opinion on effect of limited medication supply on ED misuse.

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