

relevant details regarding the patients, use of opiate analgesia and aspirin, and presence of chest pain were recorded. Serial cardiac enzyme measurements and electrocardiograms were used to establish a final diagnosis.

One hundred and thirty three of the patients (83%) were referred by general practitioners either directly to coronary care (n=91) or via the casualty department (n=42). A total of 66 of them had a discharge diagnosis of myocardial infarction. The administration of opiates and aspirin to the total group and to the subgroup with infarcts is summarised in the table. Isolated rises in creatine kinase activity were observed in four out of 10 patients who did not have a myocardial infarction but who had received intramuscular analgesia. No haematomas were detected in the seven patients who received both intramuscular opiate and thrombolytic therapy.

Patients referred on account of suspected myocardial infarction

Treatment given	No (%) receiving treatment		No (%) who after treatment a, b, or c were pain free on arrival	
	Total with suspected infarcts (n=133)	Subtotal with definite infarcts (n=66)	Patients with suspected infarcts	Patients with definite infarcts
(a) Intravenous opiate	28 (21)	12 (18)	14 (50)	6 (50)
(b) Intramuscular opiate	19 (14)	9 (14)	7 (37)	3 (33)
(c) No opiate	86 (65)	45 (68)	28 (33)	11 (24)
Aspirin	4 (3)	0	—	—

#### Comment

This study had two main findings with respect to pain. Firstly, a substantial number of patients suspected of having a myocardial infarction still do not have adequate pain relief on admission to hospital. Secondly, patients who receive no analgesia or who are given intramuscular analgesia are more likely to

be in pain than are those given intravenous analgesia. We did not measure the severity of pain on admission but think that had we done so this would have borne out the view that those not receiving intravenous analgesia had less satisfactory control of pain.

Despite the absence of haematoma in this study, we think that this is still a concern in view of the widespread use of thrombolytic therapy and a further reason why intramuscular analgesia should not be given.

Only four of 133 patients received aspirin at home. Possibly the number noted was falsely low owing to prior regular aspirin therapy. However, the benefits attributed to aspirin in acute myocardial infarction are in connection with the use of 150 mg or more being chewed at the time of the acute event.<sup>2,3</sup> Therefore, until further information is available aspirin should be given acutely to all patients suspected of myocardial infarction, regardless of their regular treatment.

This study has shown that the current frequency and mode of administration of opiate analgesia at home is suboptimal. We recommend that aspirin should be given as per the international study of infarct survival regimen<sup>3</sup> to all patients suspected of having an acute myocardial infarction. Opiate analgesia should be given more frequently and via the intravenous route.

- Willard JE, Lange RA, Hillis LD. The use of aspirin in ischaemic heart disease. *N Engl J Med* 1992;327:175-81.
- Antiplatelet Trialists' Collaboration. Collaborative overview of randomised trials of antiplatelet therapy—I: prevention of death, myocardial infarction, and stroke by prolonged antiplatelet therapy in various categories of patients. *BMJ* 1994;308:81-106.
- ISIS-2 (Second International Study of Infarct Survival) Collaborative Group. Randomised trial of intravenous streptokinase, oral aspirin, both, or neither among 17 187 cases of suspected myocardial infarction. *Lancet* 1988;ii:349-60.
- Ford JL. Parenteral products. In: Aulton ME, ed. *Textbook of pharmaceutics—the science of dosage form design*. Hong Kong: Churchill Livingstone, 1988:362-3.
- Young LY, Smith GH. Interpretation of clinical laboratory tests. In: Kodo-Kimble MA, ed. *Textbook of applied therapeutics—the clinical use of drugs*. 5th ed. Vancouver: Applied Therapeutics Inc, 1992:3.9-10.

(Accepted 29 December 1993)

## Survey of whether general practitioners carry aspirin in their doctor's bag

Michael Moher, David Moher, Peter Havelock

Southmead Surgery,  
Farnham Common,  
Buckinghamshire SL2 3ER  
Michael Moher, general  
practitioner

Clinical Epidemiology  
Unit, Loeb Medical  
Research Institute, Ottawa,  
Ontario, Canada K1Y 4E9  
David Moher, statistician

Pound House Surgery,  
Wooburn Green,  
Buckinghamshire  
HP10 0EE  
Peter Havelock, general  
practitioner

Correspondence to:  
Dr M Moher.

*BMJ* 1994;308:761-2

Our previous study found that less than a fifth of patients admitted to hospital with suspected acute myocardial infarction had been given aspirin by their general practitioner before their admission.<sup>1</sup> This result is surprising given that the early use of aspirin, alone or in combination with intravenous thrombolytic agents, is obviously beneficial<sup>2</sup> and that guidelines have been published on such use.<sup>3</sup> We suspected that one of the reasons for the low use of aspirin was that general practitioners were not carrying the drug in their doctor's bag. We therefore conducted a survey to investigate this hypothesis further.

#### Subjects, methods, and results

We selected the study sample in June 1993 with the help of Oxford Regional Health Authority, which has a computerised list of all general practitioners in the region. Once the first general practitioner's name was randomly chosen we systematically selected every second name from the list. Data were collected by means of a standardised, self administered postal questionnaire, which was sent to each participating general practitioner. No reminders were sent. Demo-

graphic data (age and sex) and whether the general practitioner belonged to a training practice were recorded. In addition, the questionnaire asked whether the general practitioner carried each of six common drugs, including aspirin, in their doctor's bag.

Returned questionnaires were analysed by the Epi-Info package.<sup>4</sup> The drugs carried by general practitioners from training and non-training practices were compared. The differences were evaluated using relative risks and 95% confidence intervals. Analysis of the non-responders showed them to be no different from the responders with regard to age, sex, and type of practice.

Of the 670 questionnaires sent, 593 were returned (88.5%); 15 were either blank or incomplete, which left 578 (86.2%) completed questionnaires available for analysis. Of these, 412 were from male general practitioners. Less than half (252) of the respondents were aged 25-39, the remainder being 40-54 (258) or 55-69 (68). More than a third of the respondents (213) were from a training practice. Penicillin was carried by the most general practitioners (556) and aspirin by the fewest (346). General practitioners in a training practice were significantly more likely to carry aspirin than their counterparts in a non-training practice (relative risk 1.63; table).

#### Comment

General practitioners are ideally placed to initiate early treatment with aspirin in patients with suspected

Drug	Training practice		Relative risk (95% confidence interval)*
	Yes (n=213)	No (n=365)	
Glyceryl trinitrate	196 (92)	334 (92)	1.04 (0.70 to 1.55)
Paracetamol	120 (56)	239 (66)	0.79 (0.64 to 0.97)
Aspirin	151 (71)	195 (53)	1.63 (1.28 to 2.09)
Penicillin	207 (97)	349 (96)	1.37 (0.68 to 2.72)
Oral steroids	205 (96)	344 (94)	1.35 (0.74 to 2.47)
Antacids	118 (55)	242 (66)	0.75 (0.63 to 0.93)

\*Difference between doctors from training and non-training practices.

acute myocardial infarction. This is in line with the British Heart Foundation's guidelines based on the results of several major randomised clinical trials.<sup>3</sup> It is therefore worrying that 40% of the general practitioners in our study did not carry aspirin in their doctor's bag.

Few investigations have examined whether the results of clinical trials influence clinical practice. Our study suggests that any influence on general practice is limited. Further investigation is needed into why the results of clinical trials are not applied and how

education can change behaviour. Researchers may have a responsibility to consider the implementation of results when planning their trials, and this could include liaison with postgraduate educators. In this context, further investigation is also needed into why general practitioners in training practices seem to be more aware of the need to carry aspirin, as is suggested by our study. The educational input into training practices may be high: how this may change behaviour needs more understanding.

We thank Amanda Johnstone, Liz Kwantes, Colin Baigent, and Sally Middleton for their help.

- 1 Moher M, Johnson N. Use of aspirin by general practitioners in suspected acute myocardial infarction. *BMJ* 1994;308:760.
- 2 ISIS-2 (Second International Study of Infarct Survival) Collaborative Group. Randomised trial of intravenous streptokinase, oral aspirin, both, or neither among 17 187 cases of suspected acute myocardial infarction. *Lancet* 1988;ii:349-60.
- 3 British Heart Foundation Working Group. Role of the general practitioner in managing patients with myocardial infarction: impact of thrombolytic treatment. *BMJ* 1989;299:555-7.
- 4 Dean AG, Dean JA, Burton AH, Dicker RC. *Epi-Info, version 5: a word processing, database, and statistics program for epidemiology on microcomputers*. Atlanta, GA: Centers for Disease Control, 1990.

(Accepted 9 February 1994)

Department of Medicine  
for the Elderly, St James's  
University Hospital, Leeds  
LS9 7TF

C Gooptu, senior house officer  
G P Mulley, professor

Correspondence to: Dr C  
Gooptu, Birmingham  
Heartlands Hospital,  
Bordesley Green East,  
Birmingham B9 5ST

*BMJ* 1994;308:762

Results of standardised interview  
of 21 patients who had been stuck  
in bath

	No of patients
Age (years):	
< 75	4
75-84	12
≥ 85	5
Sex:	
Men	11
Women	10
Living:	
Alone	11
With spouse or children	7
In sheltered housing	3
No of times stuck:	
1	19
≥ 2	2
Time stuck in bath:	
< 1 hour	15
1-4 hours	3
Overnight	2
Unable to remember	1
Reason for being stuck:	
Physical disability	11
Bath itself	10
Means of escape:	
Unaided	5
With help of:	
Spouse or children	11
Warden	3
Neighbour	1
Ambulance crew	1
Adverse physical effects:	
None	17
Bruises	2
Pressure sores and burns	1
Myocardial infarction	1

## Survey of elderly people who get stuck in the bath

C Gooptu, G P Mulley

Many apparently healthy old people are unable to bath without help<sup>1</sup> and some are not able to bath as often as they would like.<sup>2,3</sup> We met several elderly people who had become stuck in the bath, and we decided to investigate.

### Patients, methods, and results

During one week one of us (CG) assessed all inpatients on eight wards for the elderly and all those attending the geriatric day hospital at this hospital. The patients were asked whether they had ever been unable to get out of their bath at home. Those who had were then interviewed using a standard questionnaire.

Of the 233 patients initially assessed, 43 with mental impairment (abbreviated mental test score less than 7 out of 10) and 15 with severe dysphasia were excluded, as were 28 who lived in nursing or residential homes. The remaining 129 inpatients and 18 day patients were interviewed. Twenty one of the 147 patients said that they had been unable to get out of the bath at some time. Their ages ranged from 70 to 89. The table shows the results of the questionnaire.

Most people had had difficulty getting up out of the bath after completing their bathing; one had slipped and fallen and four had lain down in the bath and then been unable to get up. In 11 cases the inability to get out of the bath was related to physical disability—usually poor mobility resulting from a previous stroke (five), osteoarthritis (four), or both (two). One patient had severe rheumatoid arthritis and three were disabled by cardiac failure. Of the 10 other patients (who were in hospital with various impairments, including respiratory infection, myocardial infarction, jaundice, and leg ulcers), six blamed a lack of bath aids—for example, not having any grab rails. Two thought that the bath sides were too high to allow them to get out easily. In two cases alarms had been fitted near the bath but were at the wrong end to be of use.

All but one person had pulled the plug out to allow the water to drain away and several had covered themselves with a towel to reduce the risk of hypothermia. The patient who was admitted to hospital with extensive pressure sores and burns (table) was unable to get out of a zinc bath in front of a fire. Every patient had vivid memories of the event. Nine described it as "a terrible experience"; six others admitted to panicking. Three remembered banging on a wall to attract attention. All had changed their bathing activities since the event. Five had abandoned having a bath and now had a strip wash; four had baths at day centres. Six bathed only with the help of a relative, while three had had showers fitted. Another three were waiting for bath aids to be fitted.

### Comment

One in seven elderly people in a geriatric unit had been stuck in the bath at home at least once. Physical complications were few but potentially severe: pressure sores may develop within a few hours and require weeks of hospital care, and hypothermia can be fatal. Plastic surgery was necessary for the burns sustained by one patient. The psychological impact was considerable, one episode being enough to deter many subjects from bathing at home again.

Elderly people should be advised not to have a bath unless someone else is in the house and to leave the bathroom door unlocked. Appropriate aids and walk in showers may also help. We could not identify those at particular risk: half of our subjects had no underlying physical disability. Furthermore, those with the most reduced mobility are not necessarily at greatest risk because they often cannot get into a bath. We suspect that many healthy old people living at home are at risk. Our future community based studies should determine the prevalence of this problem and identify those at particular risk.

- 1 Clarke M, Clarke S, Odell A, Jagger C. The elderly at home: health and social status. *Health Trends* 1984;16:3-7.
- 2 Penn ND, Belfield PW, Mascie-Taylor BH, Mulley GP. Old and unwashed: bathing practices in the over 70s. *BMJ* 1989;298:1158-9.
- 3 Age Concern Greater London. *Old and clean: a report on bathing services for older people in London*. London: Age Concern, 1990.

(Accepted 23 August 1993)