bystanders, which was probably instrumental in the survival of two of our patients. Eisenberg and colleagues found that the time taken to initiate cardiopulmonary resuscitation was one of the most important variables in predicting survival from a cardiac arrest and that cardiopulmonary resuscitation by a bystander can significantly reduce this time.[1-4] Unfortunately it appears that many programmes of mass lay education fail to give the trainees sufficient confidence in their abilities, and their skills are not used frequently enough to be maintained.[5,6]

As the majority of cardiac fatalities take place long before the patient reaches hospital, arguments for general practitioners to have easy access to defibrillators are compelling, as demonstrated by our experience and by larger trials.[7] The advantages of early thrombolysis, with its concomitant risk of ventricular arrythmias, provide added reasons for access to defibrillators. The chief problems are: the cost of the equipment (£4000–£6000), though some of this can often be met by local charities, sometimes with help from the British Heart Foundation; organizing an on-call system which allows the doctor to respond quickly; and obtaining and maintaining the necessary skills. None of these problems are insurmountable to a competent practice of the 1990s.

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Neurological adverse effects of naproxen and misoprostol combination

Sir,

Misoprostol is an analogue of naturally occurring prostaglandin E_1, which promotes peptic ulcer healing rates equivalent to those observed with H_2-receptor antagonists.[1] Misoprostol also appears to prevent the development of gastric ulcers induced by non-steroidal anti-inflammatory drugs. It is claimed by the manufacturer that detailed studies show no clinically important pharmacokinetic or pharmacodynamic interactions with non-steroidal anti-inflammatory drugs.

However, as the following case history illustrates, concurrent administration of such drugs can cause neurological side effects. A 59 year old man developed rheumatoid arthritis in 1974. He had suffered from a gastric ulcer in 1959 but subsequent barium meals had shown no evidence of active ulceration. He was given different analgesics for his rheumatoid arthritis and in 1977 ibuprofen was prescribed. In early 1979 he complained of feeling generally unwell with easy fatigue, dyspeptic symptoms and frequent attacks of epigastric pain. He had also developed bleeding piles. A few months later he was admitted to hospital with severe iron deficiency anaemia and was given three units of blood. Again, a barium meal showed no signs of active ulceration. On discharge his treatment consisted of cimetidine, antacids as required, and naproxen for his arthritic symptoms.

Eleven years later, in May of this year, he attended my surgery complaining of abdominal discomfort, pain and nausea. I then prescribed misoprostol to replace cimetidine continuing the naproxen and adding metoclopramide hydrochloride. A few hours after starting this regimen, he developed ataxic symptoms — in his own words he 'felt like a drunk person — staggering all over and vomiting'. Despite this, he continued taking all the drugs for five days and then stopped the misoprostol (which was new to him) of his own volition. He rapidly improved and for two days he was virtually free of ataxia. On the third day, however, in addition to naproxen, he took one tablet of misoprostol but no metoclopramide. The ataxia rapidly recurred and lasted several hours. He took no more misoprostol on that day but on trying one further tablet on the following day the symptoms recurred. The next day he stopped taking misoprostol altogether and replaced it with cimetidine, continuing with the naproxen and the metoclopramide. He felt much better and has had no recurrence of his ataxic symptoms to date.

Jacquemier and colleagues[2] describe two cases of 'neurosensory adverse effects after phenylbutazone and misoprostol combined treatment'. In both cases, the symptoms appeared soon after misoprostol was started, subsided rapidly on its discontinuation and recurred on rechallenge. The explanation for this syndrome is not clear, but it may well have a pharmacokinetic basis. Pending further studies, patients should be warned to discontinue misoprostol should neurosensory symptoms occur.

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Inflammatory cervical smears

Sir,

I was interested to read the recent paper on the inflammatory cervical smear (June *Journal*, p.238). I collaborated in a similar study in July 1988,[1] and I was startled by the difference between our results and those of Kelly and Black.

We looked at 150 consecutive smears over a three month period, 75 of which proved to be inflammatory. All patients with inflammatory smears were recalled and invited to have a full microbiological assessment which included a high vaginal swab, an intra-cervical swab, testing for chlamydia and screening for gardnerella. We found only 12 positive cultures from 74 women with inflammatory smears and in nine cases the organism was *Candida albicans*. Of the 12 patients found to have a positive culture only five were symptomatic — four were positive for candida and only one of the symptomatic patients was positive for chlamydia. This led us to conclude that routine swabbing of patients with inflammatory smears is both expensive and probably not very productive.

Although I agree with Kelly and Black that the appearance of the cervix did not imply a greater chance of inflammation, I cannot agree that women with inflammatory smears suffer symptoms associated with their putative infection. However, I would agree that women whose smears are reported as severely inflammatory should probably have a high

vaginal swab and that the smear should be repeated in six months.

The main issue in this debate appears to be whether all patients with an inflammatory smear should have a colposcopy, as some authors have suggested.[2] This would be very time consuming and costly to the NHS and our results and those of Kelly and Black suggest that this would not be of much benefit at this stage, although repeating the smears of those with inflammatory changes at more frequent intervals may be more appropriate.

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Postcoital contraception

Sir,

In their article on postcoital contraception (August *Journal,* p.326) Burton and Savage conclude that emergency contraception must be better promoted if the abortion rate is to be reduced. Although this sounds logical, they do not cite the evidence by which they reached this conclusion. I wonder if this is one of those situations where the assumed logic is not in fact supported by the epidemiological evidence.

Are we being wise in pushing forward an ever greater range of contraceptive options? The range and availability of contraception has considerably increased in the last two decades. The abortion rate has also increased. Paradoxically, could it be that increasing contraceptive availability is causally linked with increased demand for induced abortion?

Surely much more research is required before reaching the conclusions which Burton and Savage have drawn.

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Terminal care at home

Sir,

Dr Herd's paper describing terminal care in West Cumbria (June *Journal,* p.248) illustrates that good terminal care may be provided at home in a semi-rural area without the support of an inpatient hospice type facility. His figure of 53% of people with cancer being able to die at home is encouraging.

A review of the literature of the last 10 years or so indicates an increase in the percentage of patients able to remain at home until their death, cared for by various types of home care team. In 1978, Doyle[1] at St Columba's Hospice in Edinburgh, found that 28% of patients receiving home care died at home. By 1980 this figure had increased to 41%. In 1979 the team from St Joseph's Hospice, London cared for 50% of their patients at home until their death.[2] In 1988 this figure was 61%.[3] Rees[4] from St Mary's Hospice in Birmingham found that 30% of patients receiving home care died at home in 1981 and was able to report a rise to 55% in 1986. The North London hospice home care service, without the backup of a hospice inpatient unit, reported that in 1985 they cared for 58% of their patients at home until they died.[5] In 1989 the Tunbridge Wells hospice at home service was able to care for 71% of its patients at home until their death (unpublished results). Similar figures are also quoted in other countries. The South Auckland hospice in New Zealand cared for 59% of patients at home until death (unpublished results), and in Bologna, Italy, 60% of patients die at home.[6]

Ward[7] points out that when a home care service operates from a hospice, fewer patients remain at home until their death than when a free-standing home care service is in operation (29% versus 65%). Similar figures are given in the American national hospice study (27% versus 62%).[8] Although this does not apply to the hospice based services described above,[1-4] it would seem that sometimes the readiness with which a patient is admitted may be related to the ease of access to a hospice bed. Dunphy and Amesbury[3] looked at the reasons why patients receiving home care were admitted and found that most required more nursing than could be provided at home by family and professional carers. This is similar to the findings of Dr Herd.

The increase in the proportion of patients able to remain at home until their death has come about through a better understanding of the services required by patients and an increased ability of the caring teams to provide them. Co-operation between general practitioners, community nurses and hospice teams can lead to an increase in the number of patients cared for at home, while technological advancements such as the delivery of drugs by syringe driver have led to improved symptom control.

It may be that 60–70% of people able to remain at home until their deaths is the maximum that we can achieve with the resources currently available. An increase to the 70–80% suggested by Dr Herd would be a marvellous achievement and may be aided by the use of volunteers, Marie Curie nurses and so on.

Cost comparisons between inpatient care and home care are complex because of the large numbers of different groups involved. In Australia Gray and colleagues[9] have shown that home care with 24 hour nursing and medical cover is no more expensive than hospital care. However, it may be that it is the perceived cost of such 24 hour cover that limits the achievement of a high percentage of people dying at home.

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Surveillance of the over 75s

Sir,

I work as a busy general practitioner in a deprived area with stretched social services and nursing staff. I doubt whether my practice could find a nurse auxiliary to complete the home assessments of over 75 year old patients required by the new contract[1] as suggested by Dr Wallace in his editorial (July *Journal,* p.267).

When our practice nurse makes her yearly visit to elderly patients she ascertains what carers are available. She makes a shrewd assessment of the state of the house, she asks the patient if they have difficulty reading a newspaper and if they are a car driver asks them to read a number plate. She usually notices if the patient cannot hear her and has an auroscope to identify wax in the ear. She makes discreet enquiries into the state of the patient's bowels and bladder. Many of our elderly patients are too busy to endure a full mental assessment and a chat about