

data¹⁰ should be a cause for concern among those in favour of a programme of once-only flexible sigmoidoscopy, and make a combined approach even more attractive. Information from the UK MRC flexible sigmoidoscopy trial⁴ about possible missed lesions is unlikely to be available for another 10 years. In the meantime we need to start to build a screening programme for this disease. A combined approach of flexible sigmoidoscopy and a stool-based test seems sensible.^{11,12}

Since a screening programme for colorectal cancer will probably need to be rolled out centre by centre, each centre will probably need a catchment population of around 500 000 to make screening cost effective and to provide scope to test different screening regimens and technologies. Whilst all the answers may not be available, a programme has to start somewhere.

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Hip protectors need an evidence base

Hip fractures are a major threat to the health and well-being of elderly people, because these fractures represent one of the most important causes of long-standing pain, functional impairment, disability, and death in this population.^{1,2} There are over 1.5 million hip fractures annually worldwide. Unfortunately this epidemic seems to be worsening, because age-adjusted fracture rates are rising in many populations, and this trend must be superimposed on the rapidly increasing

number of older people.^{1–3} Because each hip fracture costs around £12 000,⁴ all methods that might reduce the risk of hip fracture and their costs to individuals and society warrant critical appraisal.

External hip protectors could provide an economically sound preventive strategy for high-risk populations. Most cases of hip fracture result from a sideways fall with direct impact on the greater trochanter of the proximal femur.^{5,6} Thus elderly people could prevent fractures by wearing a device to protect the hips so that at the time of a fall, the force and energy of the impact are attenuated and shunted away from the greater trochanter. Not surprisingly, after the first randomised controlled trials evaluating the effects of shield-type hip protectors on the risk of hip fracture were published,^{7–9} there was a rapid increase in a wide variety of hip pads and protectors on the market. This rise is certain to be fuelled further by the economic analysis by Colon-Emeric et al¹⁰ of the cost-effectiveness of hip-protector use. But not all hip protectors have been created equal, and a recent study by Yvonne Birks and colleagues¹¹ even suggested that the risk of hip fracture can be increased among elderly people randomised to the protector group. 366 men and women aged 70 years and over who had sustained one hip fracture were randomised to protector or control groups. After a median follow up of 14 months, 6 persons in the intervention group and 2 in the control group sustained a second hip fracture (odds ratio 3.1, 95% CI 0.6–15.6).

In view of these findings, it is unfortunate that most commercially available hip protectors have reached the market with a spectacular dearth of scientific research. Such lack of rigour is evident on the internet, where many types of hip devices are available with unsubstantiated claims for fracture prevention. References to scientific publications in peer-reviewed journals are absent, or, when investigations are mentioned, the studies do not relate to the device in question.

Thus, despite the increasing recognition among physicians and patients that hip protectors could be an essential preventive measure for hip fracture, few models of protectors have been studied systematically. Ideally, hip protector research should start with the biomechanical antifracture efficacy in vitro and in actual falls, continuing with compliance and adherence with users, and end with a user-control comparison in a randomised trial.^{9,12–15} The newest hip protectors that emphasise a thin design seem to seek increased user-comfort, but this is most likely achieved at the cost of reduced force-attenuation, efficacy, and safety.

In general, it is widely agreed that assessment and verification of the fracture-preventing effect of any system or method should conform to the strict requirements that national regulatory bodies have put on fracture-preventing drugs. Such conformity is not the case with hip protectors, and marketing of hip protectors for use in elderly people currently resembles a Wild West that abounds with empty promises of security. We fear that medical staff may be the subject of legal actions if a patient were to break a hip while wearing a clinically recommended, but not scientifically researched, hip protector. For this reason, we recommend that companies starting to market hip protectors should first require regulatory approval, which, in turn, should be based on a protector-specific application detailing the biomechanical and clinical studies that verify the effectiveness of the protector in question. Such approval for each commercially available protector would be in line with the requirements of evidence-based medicine and

provide important quality control for elderly users and those paying for the protectors. Since, in many countries, such as Norway, Finland, Sweden, and France, there are already systems to partly or fully reimburse hip-protector costs, the (tax) payers deserve to know whether the protector they pay for is evidence-based or not.

It would be prudent to anticipate the scenario of an older person who is wearing a hip protector falling and suffering a hip fracture, as no device can provide complete protection. Such a catastrophic event may lead to legal action against the manufacturer, supplier or caregiver. This means that those recommending specific hip protectors must be armed with scientific evidence that the protector has been proven to effectively reduce the force delivered to the proximal femur in a sideways fall, and, according to a large randomised trial, reduce fractures among users. Given the likely rapid further expansion of the market for hip protectors, we strongly recommend that relevant regulatory bodies urgently implement appropriate standards, not only for legal, economic, and ethical reasons but also, most importantly, for the sake of patients who wear these devices in good faith.

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Lessons from the French heatwave

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With four reports^{1–4} recently published and more to come, France is still struggling to learn the lessons of its catastrophic heatwave in August, 2003. So far, it seems that the death toll in France² was about three times higher than in Italy,⁵ the second most affected country this summer. This heatwave was among the deadliest in the developed world since the 1960s. The Ile-de-France (Paris and its suburbs) saw an average increase in deaths of 130% over the number expected, an excess of 4866 deaths. By comparison, the death toll in Chicago increased by 147% (739 excess deaths) during its 1995 heatwave, that in Athens doubled in 1987 (2000 excess), and that in Los Angeles increased by 172% in 1963 (580 excess).

Exceptional weather over a wide area was one reason for the large death toll. In 61 départements (administrative regions), temperatures soared to maximums of 35°C and above, and did not drop below 20°C for 9 consecutive days during the first 2 weeks of August (figure). Higher maximum temperatures were recorded elsewhere, but it was the combination of high minimum temperatures and duration of the heatwave that proved particularly deadly. Short hot nights did not allow the cities to cool. In apartments, temperatures were much higher than those recorded outside. Pollution also seems to have been a contributing factor, although to what extent is unknown. Such weather was unprecedented in northern France, where people are unaccustomed to extreme heat and where air conditioning is rare, including in public buildings and retirement homes. Most people were surprised by the heat, and only learned how to cope as the heatwave progressed.

Most of the mass media debate has been about the French health system's failure to respond adequately to the crisis, and the political turmoil that ensued. The Ministry of Health³ and Parliament⁴ reported how the Institut de Veille Sanitaire, set up 4 years ago to be the French equivalent of the US Centers for Disease Control and Prevention, failed to warn of the looming crisis. The various administrations and ministries involved also failed to understand the crisis as it was developing and to coordinate their activities. Their response came too late and little was done in terms of prevention. As a result, emergency rooms, then morgues, filled up. The heaviest death toll was among elderly city dwellers. 82% of the excess deaths were in people over 75 years old; most came from the Ile-de-France. The media, both at home and abroad, wrote about the shame of a nation that let its elders die and the need for a health system that can compensate for the loosening of family and community ties. Sadly, this scenario of administrative incompetence and underlying social factors is not new. A sociological analysis of the 1995 heatwave in Chicago⁶ points, in particular, to a similar chain of events.

France is now thinking about how to prevent the same disaster from happening again, and measures to improve emergency medicine have been announced (p 1208). A report on care for the elderly is expected in October and