The other side of hip protectors

SIR—The prevention of hip fractures is getting more attention [1]. Based upon the results of several randomized controlled trials, hip protectors now play a major role in these considerations [2–4]. Most trials focus on efficacy, and less attention has been paid to side effects and adherence. Cameron and Quine correctly pointed out that old people at home have reservations about using hip protectors that can be classified into cost, odd appearance, discomfort and coping strategies [5]. This has not been systematically examined in nursing home residents and staff.

As part of a multifactorial intervention trial [6] we looked at adherence, withdrawal and nurses’ attitudes. (The study was not supported by any manufacturer of hip pads.) During the trial, two different types of hip protectors were offered to 346 residents, 76% of whom could walk with help. Of this group, 37% decided to wear hip protectors. After 9 months, 19% had stopped wearing them (defined by not wearing them at any time).

Besides the above-mentioned drawbacks, we observed other problems that have not been reported before. Several people needed more help with dressing. Those residents with urge incontinence reported additional incontinent episodes related to use of the undergarment. Both issues led to increased staff support. We initially considered three hip protectors per resident to be sufficient but soon found that at least five were needed for incontinent residents, which increases the cost of the intervention. After several months, some protectors are unusable as a result of washing by commercial laundries that use various drying and washing techniques (high frequency rotation, press drying, powerful chemicals). In any case, the biomechanical properties of the pads change with time, even with usual washing. Since only new hip protector models have been biomechanically examined [7, 8], there might be important changes in their properties after only a few washes. All these factors add considerably to the effectiveness or ineffectiveness of an intervention and have to be considered in cost-effectiveness or cost–benefit analyses.

We still consider the use of hip protectors for high-risk patients to be important. They should be used along with environmental adaptations, counselling, training, psychopharmacy and vitamin D and calcium supplementation. However, potential side effects should be discussed, and additional staff time should be taken into account when hip protectors are recommend for use in nursing homes.

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Seasonal effects on cardiovascular mortality in older patients

SIR—Epidemiological studies have shown temperature and seasonal effects on the mortality rate from coronary heart disease in elderly people [1, 2] and a seasonal variation in the onset of acute myocardial infarction (AMI) [3, 4]. It is unclear whether the increased mortality is simply due to temperature-related changes in disease incidence or if it is related to differences in disease severity.

We conducted a prospective investigation on the clinical course of 585 AMI patients aged 65 years and above admitted to a medical centre. Patients’ comorbidity, complications, and survival status were documented. One hundred and sixty-five patients (28.2%) sustained an AMI in spring, 162 (27.7%) in summer, 135 (23.1%) in summer and 123 (21.0%) in autumn. All patients were stratified into two groups: those who had an AMI in spring or winter (seasons with a higher AMI incidence, n = 327) and those in summer or autumn (n = 258). There was no statistical difference between the two groups in mean age, gender, location of myocardial infarct, incidence of hypertension, diabetes mellitus, hyperlipidemia or
stroke, or in the occurrence of various cardiac arrhythmias whilst in hospital. Patients who developed AMI in spring and winter had a higher prevalence of a previous myocardial infarction than those who developed it in summer and autumn, (27.0% versus 19.8%, \( P < 0.05 \)) and were more likely to develop cardiogenic shock (22.5% versus 13.6%, \( P < 0.01 \)). Using a stepwise Cox proportional hazards regression model, we found that cardiogenic shock was the most important predictor (risk ratio = 6.98, \( P < 0.0001 \)) for 1-month mortality in all of these patients.

These data suggest that altered AMI severity, with a difference in the prevalence of cardiogenic shock, may contribute to the seasonal variation in cardiovascular mortality. Older patients with previous myocardial infarction were more susceptible to adverse effects of weather-related stresses.

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Metformin and ageing diabetic patients

SIR—The incidence of type 2 diabetes mellitus increases with age and leads to significant morbidity and mortality. Of the various anti-hyperglycaemic drugs, metformin therapy has commonly been listed as a contra-indication in elderly subjects [1]. Many physicians are over-cautious in prescribing this biguanide therapy to minimize the risk of lactic acidosis—a rare but serious complication of metformin therapy, with a mortality of 50% [2].

Elderly patients are prone to develop metformin-associated lactic acidosis as they are more likely to be on multiple medication (often including nephrotoxic drugs) and have co-existing illnesses and decline in renal function. However, age in itself has never been shown to be a risk factor for lactic acidosis related to metformin.

Metformin can be used safely and effectively when doctors adhere to the usual prescribing precautions [3, 4]. In a study which included 40 patients with type 2 diabetes who were aged less than 65 years and 30 who were aged over 65 years, all with normal hepatic and renal function and treated with metformin monotherapy or metformin in combination with a sulphonylurea drug, Chalmers et al. showed that there was no correlation between age and post-prandial blood lactate levels [3]. Another study of 76 type 2 diabetic patients, all over the age of 70 years and with normal hepatic and renal function, showed markedly improved glycaemic control without any increase in fasting lactate level after 1 year of adding low-dose metformin to sulphonylurea [4].

Additionally, in the recent United Kingdom Prospective Diabetic Study, metformin monotherapy resulted in a reduction in the risk of diabetes-related endpoints as well as overall mortality—without any increase in incidence of lactic acidosis [5].

Thus, elderly patients with type 2 diabetes should not be deprived of the potential benefit of metformin therapy, provided that prescribing guidelines are strictly adhered to and renal function monitored during treatment [2].