(2) Such consensus statements should be distributed to the medical profession, be made available upon request to all interested bodies, and be re-evaluated and updated on a regular basis. The demand on resources of different treatments should be included in these reviews.

(3) Action should be taken to establish consensus panels without delay. This will require the active support of both physicians and those agencies concerned with the delivery of care to patients with cancer.

(4) Savings achieved by rationalisation of cancer

management should remain available for reallocation to other areas of cancer care.

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Lesson of the Week

Scalds of the elderly in residential care

L C Bainbridge, M J M Black

Temperature controls should be fitted to all baths in residential homes for the elderly and disabled

Accidents to elderly people living at home are inevitable as they strive to maintain their independence, sometimes in the face of increasing disability. In residential homes such accidents should be less common, though their complete avoidance is incompatible with the philosophy of self help as a means of preserving dignity.

Three avoidable fatal burns of elderly patients in residential homes illustrate the problem facing these institutions. The risk of such accidents and the severity of their consequences may often be reduced by simple means.

Case reports

Case 1—An 80 year old chronic schizophrenic lady who lived in a psychogeriatric unit presented with scalds of 70% of her body surface area. She had run a bath for herself using only hot water, and then climbed into it unnoticed by the staff. In view of her age and the extent of the burn she was treated symptomatically. She died four hours later.

Case 2—A 70 year old hypothyroid lady who lived in a local authority home presented with scalds to both buttocks, legs, and back estimated to be 15% of her body surface area. She had climbed into a bath partly filled with hot water while unattended. She was resuscitated, her hypothyroid state corrected, and the burns initially managed conservatively. Areas of full thickness skin loss were grafted six weeks after the injury. She died two weeks later of bronchopneumonia.

Case 3—A 65 year old man with a dense left hemiplegia who lived in a private nursing home presented with scalds estimated to be 37% of his body surface area. He had been lowered into a hot bath by two nurses who had not checked the temperature of the water. He was resuscitated and the burns managed conservatively. He developed cardiac failure and died seven days after admission.

Discussion

These patients all presented to a single regional burns unit in one nine month period. This is not, however, a local problem; between 1979 and 1985, 60 people died in residential care from similar scalds (Office of Population Censuses and Surveys, unpublished observations).

Burns are always serious in elderly people, who are at great risk during the resuscitation (with high volumes of intravenous fluids) and from the long period of immobility, from the increased risk of infection, and from any operations necessary to restore skin cover.

These three scalds were due to failures in the supervision and care necessary for elderly patients. Maintaining adequate supervision of such patients who though confused are often extremely resourceful, depends on many factors. Although adequate numbers of staff are necessary (and these are laid down for private establishments), training is also vitally important to enable the staff to maintain appropriate supervision without totally removing the patients' independence.

A back up safety device should, however, be available to reduce the risk of injury on those occasions when the supervision is inadequate. None of these three scalds would have occurred if the temperature of the bath water had been low enough to avoid burning the skin during the period of immersion. Assuming this to be two to three minutes, the temperature of the hot water would have to be less than 50°C.¹ Hospitals are, however, required to store hot water above 61°C in order to remove the risk of infection by *Legionella pneumophila*.² Water at this temperature will cause a full thickness burn of the skin in four seconds.¹ The problem may be overcome by fitting a thermostatic temperature control to the hot water tap. A suitable device is the MIRA 20K thermostatic ¾ inch mixing valve for hot and cold water (Walker, Crossweller and Co Ltd, Cheltenham GL52 5EP), the price of which at the time of writing was £250. A further simple and cheap safety measure is the fitting of a liquid crystal digital bath thermometer with obvious indication of dangerous temperatures. Such thermometers are available from most chemists costing less than £2. The use of these two controls in all residential homes for the elderly or disabled is recommended.

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