hhabits falls with age, the inter-individual variability tends to rise [1]. That is, individuals might become more set in their ways as they age, but they might differ more from one another, particularly as constraints due to work, family and friends are removed. This result implies that regular medication should be linked to an event (e.g. rising from bed) rather than a clock time (e.g. 0800h).

2. The measurements of lifestyle have concentrated on 'survivors' [3, 4], that is, individuals who are able to determine their lifestyle rather than those who are sufficiently disabled, mentally or physically, to have to be cared for by others. In such cases, regularity of habits would become the responsibility of the carer or institution.

3. The is some evidence that, in 'old-old' subjects (>74 years), there is a rise in daily variability of some aspects of lifestyle [4] and that this rise is more marked in subjects showing mental deterioration [5, 6]. Interestingly, attempts to increase the regularity of lifestyle in elderly subjects—by regular activity [7], exposure to bright light [8] or evening melatonin ingestion [9]—have all been claimed to have some success. Presumably, elderly subjects who are institutionalized will benefit from such imposed regularity.

In summary, it would seem that medication compliance in elderly subjects will be higher than in younger subjects as long as individuals continue to maintain their regularity of habits; when this is not the case, the responsibility for regular medication would have to fall on the carer or institution.

DANIEL MINORS
School of Biological Sciences, Stopford Building,
University of Manchester,
Manchester M13 9PT, UK
Fax: (+44) 161 275 5600;
e-mail: David.Minors@man.ac.uk

JAMES WATERHOUSE, GREG ATKINSON
School of Human Studies,
Liverpool John Moores University,
Liverpool, UK

PATRICK RABBITT
Age Cognitive Performance Unit,
University of Manchester,
Manchester, UK


Urine collection and culture in elderly people

SIR—Michielson et al. report a simple way to collect urine samples in elderly women and compare their findings with the 'gold standard' of suprapubic aspiration of urine [1]. Their findings support earlier reports that strict vulval cleansing may not be essential [2, 3], but this preliminary report in a small, highly heterogeneous group of patients makes assessment of the utility of the method difficult. A negative culture clearly excludes infection, but no further light is shed on the difficult diagnosis of urinary infection in elderly subjects as the authors have placed too great a reliance on the Kass criteria. The Kass criteria with or without pyuria are not synonymous with infection, and lower counts may still signify infection [4].

Bacteriuria is common, frequently asymptomatic, and does not influence mortality or morbidity. To pursue it in the absence of acute symptoms, via traditional MSSU or sterile collection, is unnecessary [5]. Non-specific illness presentation is best pursued using blood cultures if infection is suspected. Interpretation of the findings of urine culture in elderly subjects remains problematic and indiscriminate urine culture and rigid adherence to the Kass criteria will lead to unnecessary treatment. A pragmatic approach in treating symptomatic infection would seem more appropriate.

JOHN CLAGUE, MICHAEL HORAN
Department of Geriatric Medicine,
Salford Royal Hospitals NHS Trust,
Clinical Sciences Building, Hope Hospital,
Stott Lane, Salford M6 8HD, UK


Acute medical bed usage by nursing-home residents

SIR—The growth of nursing home care in place of hospital-based care is paralleled in Northern Ireland by increasing numbers of nursing home patients presenting to hospital for acute medical admission. We note the recent letter from Edinburgh [1] highlighting the higher rate of readmission to acute hospital care from nursing homes in comparison to National Health Service (NHS) long-stay care and their claim that the private nursing home sector is saving the NHS money.

In Northern Ireland, a census of approximately 1300 acute beds was undertaken by local geriatricians on a single day in January 1997. This revealed that 125 nursing home patients (mean age 83.3 years) were receiving care in acute medical beds. The proportion of acute medical beds occupied by nursing home residents was 10%. The assessing doctor judged that 12 (9.6%) surveyed admissions could have had investigations and/or treatment reasonably instituted in the nursing home. If, however, a similar number of hospital beds (125) were occupied continuously throughout the year, this would equate to an expenditure of about £6.8 million per annum (assuming a cost of £150/day). This represents an additional cost of 7.1% to the overall annual cost of the nursing home beds in Northern Ireland of £96 million. We believe that the closure of hospital long-term care facilities should result in both enhanced investment in community services—including medical care—as well as re-investment in acute hospital care for elderly people.

We remain unconvinced that the private nursing-home sector is saving the NHS money.

TIMOTHY BERINGER
Consultant Physician, Care of the Elderly,
Royal Victoria Hospital, Grosvenor Road,
Belfast BT12 6BA,
Northern Ireland, UK

PETER FLANAGAN
Consultant Physician, Care of the Elderly,
Braid Valley Hospital, Cushendall Road,
Ballymena BT43 6HH,
Northern Ireland, UK