

high as 60% in revisions of revisions.<sup>21</sup> Use of modern cementing techniques does not seem to reduce the failure rate.<sup>22</sup>

Despite great advances in improving the lifespan of the primary hip replacement the capacity to correct a loose, aseptic, failed replacement is still poor,<sup>5</sup> with rerevision within four years not being abnormal.<sup>18</sup> A strong case can therefore be made for some surgeons to specialise in revision hip surgery and build on their familiarity with advanced bone grafting techniques, bone banking, custom made components, and sophisticated microbiological advice. Such special-ist facilities are not widely available in all countries.

As the number of primary total hip replacements per- formed rises so will the number of revision procedures. Proper surgical technique may reduce the chance of failure but cannot entirely eliminate it. Pressure to increase the number of joint replacements performed must not be allowed to diminish surgical standards, otherwise this revision epi- demic runs the risk of bringing orthopaedic surgery to its knees.

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1 Wilson JN, Scales JT. Loosening of total hip replacements with cement fixation. *Clin Orthop* 1970;72:145-60.

- 2 Beckenbaugh RD, Ilstrup MS. Total hip arthroplasty. *J Bone Joint Surg (Am)* 1978;60:306-13.
- 3 Dregghorn CR, Hamblen DL. Revision arthroplasty: a high price to pay. *BMJ* 1989;298:648-9.
- 4 Wroblewski BM. Introduction. In: *Revision surgery in total hip arthroplasty*. London: Springer Verlag, 1990:14.
- 5 Harris WH, Sledge CB. Total hip and total knee replacement (first of two parts). *N Engl J Med* 1990;323:725-31.
- 6 Stauffer RN. Ten-year follow-up study of total hip replacement. *J Bone Joint Surg (Am)* 1982;64:983-90.
- 7 Harris WH, Schiller AL, Scholler J-M, Freiberg RA, Scott R. Extensive localized bone resorption in the femur following total hip replacement. *J Bone Joint Surg (Am)* 1976;58:612-8.
- 8 Wroblewski BM. Wear and loosening of the socket in the Charnley low-friction arthroplasty. *Orthop Clin North Am* 1988;19:627-30.
- 9 Harris WH, McGann WA. Loosening of the femoral component after use of the medullary-plug cementing technique: follow-up note with a minimum five-year follow-up. *J Bone Joint Surg (Am)* 1986;68:1064-6.
- 10 Chandler HP, Reineck FT, Wixson RL, McCarthy JC. Total hip replacement in patients younger than thirty years old: a five-year year follow-up study. *J Bone Joint Surg (Am)* 1981;63:1426-34.
- 11 Lee AJC, Ling RSM. Improved cementing techniques. *Instr Course Lect* 1981;40:407-13.
- 12 Older J. Low-friction arthroplasty of the hip. *Clin Orthop* 1983;211:92-8.
- 13 Bartell DL, Bicknell MS, Wright TM. The effect of conformity, thickness and material on stresses in ultra-high molecular weight components for total joint replacement. *J Bone Joint Surg (Am)* 1986;68:1041-51.
- 14 Wilson PD Jr, Amstutz HC, Czerniecki A, Salvati EA, Mendes DG. Total hip replacement with fixation by acrylic cement: a preliminary study of 100 consecutive McKee-Farrar prosthetic replacements. *J Bone Joint Surg (Am)* 1972;54:207-36.
- 15 Schutzer SF, Harris WH. Deep-wound infection after total hip replacement under contemporary aseptic conditions. *J Bone Joint Surg (Am)* 1988;70:724-7.
- 16 Cook SD, Barrack AL, Thomas KA, Haddad RJ Jr. Quantitative analysis of tissue growth into human porous total hip components. *J Arthroplasty* 1988;3:249-62.
- 17 Maloney WJ, Harris WH. Comparison of a hybrid with an uncemented total hip replacement. *J Bone Joint Surg (Am)* 1990;72:1349-52.
- 18 Kavanagh BF, Ilstrup DM, Fitzgerald RH Jr. Revision total hip arthroplasty. *J Bone Joint Surg (Am)* 1985;67:517-26.
- 19 Jones JM. Revisional total hip replacement for failed Ring arthroplasty. *J Bone Joint Surg (Am)* 1979;72:1029-34.
- 20 Broughton NS, Rushton N. Revision hip arthroplasty. *Acta Orthop Scand* 1982;53:923-8.
- 21 Hoogland T, Rassano CD, Marks KE, Wilde AH. Revision of Mueller total hip arthroplasties. *Clin Orthop* 1981;161:180-5.
- 22 Engelbrecht DJ, Weber FA, Sweet MBE, Jakim I. Long term results of revision total hip arthroplasty. *J Bone Joint Surg (Br)* 1990;72:41-5.

## Prescribing at the interface between hospitals and general practitioners

### *Like all interfaces, it demands good communication*

Conflict over who is responsible for prescribing for hospital outpatients has recently caused sparks to fly at the general practice-hospital interface. The concern is that cash limited hospitals are increasingly seeking to transfer prescribing costs, particularly of new and expensive agents such as recombinant human growth hormone and erythropoietin, to non-cash limited general practice drug budgets.

Several issues are raised by the present difficulties. Firstly, general practice drug budgets are now coming under pressure from the indicative prescribing scheme. Although these budgets are not cash limited, general practitioners, and especially fundholders, are concerned that the increased expenditure they incur may create problems when scrutinised by their family health services authorities and their medical advisers. Secondly, general practitioners may be anxious about accepting clinical responsibility for prescribing a drug when they are unfamiliar with its mode of action, adverse effects, and monitoring requirements. Such responsibility is implicit in the provision of a prescription and has both ethical and legal implications for the doctors concerned.

In this issue Professor Paul Freeling's group from St George's Hospital, London, report on the outpatient prescribing policies adopted by major acute hospitals in England and the impact of these policies on general practitioners and hospital consultants (pp 29, 31).<sup>1,2</sup> The period for which outpatient prescriptions were issued varied widely, although most hospitals prescribed for 14 days. Almost half of the hospitals that responded to the survey asked general practitioners to prescribe drugs such as fertility treatments, growth hormone, drugs used in renal failure, and zidovudine for treating HIV infection. This was confirmed by the general practitioners studied, 46% of whom commented that they

were asked to prescribe drugs for which they felt unable to take clinical responsibility. Their reasons included cost but also related to lack of knowledge about the drugs themselves. Conversely, 78% of the consultants in the study said that they expected general practitioners to prescribe while retaining clinical responsibility themselves; almost two thirds of them asked general practitioners to prescribe in order to circumvent restrictions imposed by their hospitals.

The trends and tensions revealed by the St George's group will inevitably worsen as further important, but expensive, products are marketed. The means of their resolution lie both with central government and at the professional interface between hospitals and general practice. (Some suggestions about responsibility for prescribing between hospitals and general practitioners are contained in the NHS Management Executive circular letter EL(91)217.) Disputes over responsibilities for prescribing specific expensive drugs might best be resolved by regional policies; Orme has suggested that a regional funding policy for prescribing would quickly lead to overall savings to the regional drug budget.<sup>3</sup>

The convergence of district health authorities and family health services authorities is under discussion, driven by the obvious need for unitary strategic planning, health needs assessment, health care provision, and health promotion. The agenda should also include unitary financing. Separate funding for the acute hospital services and the family practitioner services was introduced many years ago to prevent the potential drift of money from general practice to hospitals. Each budget is voted separately by parliament, and virement between hospital and general practice drug budgets would be illegal. The problems of prescribing at the hospital-general practice interface, though accounting for only a small percent-

age of overall drug expenditure, are only one reason why financial separation needs to be re-examined. The absurdity of a patient drawing on two drug budgets is unsustainable in the long term.

The profession itself, however, also has a responsibility to patients and the public to resolve some of the current difficulties. Firstly, hospital prescribers need to know more about drug costs and the resource consequences of starting long term treatment with expensive agents. Secondly, we need to develop to a much greater extent the concept of shared care of patients who are the joint responsibility of both hospital consultants and general practitioners. Such patients usually have a multiplicity of problems which require the skills of both groups. Thirdly, where shared care might reasonably include the prescription of unfamiliar and expensive drugs by a general practitioner, certain cardinal principles must apply. The request should be from one doctor to

the other and not via the patient; and it should be accompanied by written information about the product, including the appropriate dose, the duration of treatment, special monitoring requirements, potential interactions, and possible adverse effects. If this sounds like yet another plea for better communications between hospital staff and general practitioners we make no apology.

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- 1 Wilkie P, Sibbald B, Raftery J, Anderson S, Freeling P. Prescribing at the hospital-general practice interface. I: Hospital outpatient dispensing practices in England. *BMJ* 1992;304:29-31.
- 2 Sibbald B, Wilkie P, Raftery J, Anderson S, Freeling P. Prescribing at the hospital-general practice interface. II: Impact of hospital outpatient dispensing policies in England on general practitioners and hospital consultants. *BMJ* 1992;304:31-4.
- 3 Orme M. How to pay for expensive drugs. *BMJ* 1991;303:593-4.

## Age associated memory impairment

### *Too broad an entity to justify drug treatment yet*

Why cognitive function falls with age is poorly understood, although there is no shortage of explanations. The brain is smaller (by the age of 90 it has shrunk by one fifth), and characteristic changes are present: accumulations of lipofuscin,<sup>1</sup> granulovacuolar degeneration,<sup>2</sup> dendritic atrophy,<sup>3</sup> and plaques and tangles.<sup>4</sup> Neurofibrillary tangles are usually limited to the hippocampus (in contrast, in Alzheimer's disease they are widespread) and are present in almost everyone who lives to the 10th decade, while senile plaques are found in three quarters of people who reach 90.<sup>4</sup>

The term "benign senescent forgetfulness" was used by Kral to describe the mild memory impairments he noted among some residents of an old people's home in Montreal.<sup>5</sup> He characterised the syndrome as difficulty in remembering names and dates of the past which were easily recalled at other times—suggesting a problem with memory retrieval. He considered this to be non-progressive and distinguished it from "malignant" forgetfulness (dementia) by its lower mortality at four year follow up.<sup>6</sup> Although he believed that the group with benign forgetfulness was distinct from healthy old people, he could not show any objective differences between the two groups.

Few attempts have been made to validate this syndrome or to determine whether it is part of normal aging, an early manifestation of Alzheimer's disease, or a distinct pathological condition. Reisberg *et al* reported that at 3.6 year follow up a group of 40 patients with mild forgetfulness was clinically unchanged, though no objective measure of memory was used.<sup>7</sup> Larrabee *et al* attempted a cluster analysis of 88 healthy volunteers, finding 10 who could be classified as having benign forgetfulness.<sup>8</sup> Although no deterioration occurred after a year, no evidence was found to support the contention that people with benign forgetfulness formed a distinct group.

Could benign forgetfulness and Alzheimer's disease form a continuum as Kral and others have speculated?<sup>9 10</sup> This is unlikely given the amount of evidence suggesting that normal aging and Alzheimer's disease may be distinguished pathologically,<sup>11</sup> psychologically,<sup>12</sup> and genetically.<sup>13</sup>

Because of the diagnostic uncertainties the National Institute of Mental Health convened a working group in 1986 to establish research criteria that would "describe the memory

loss that may occur in healthy elderly subjects in the late years of life." The group proposed using the term "age associated memory impairment" if the following criteria were satisfied: age over 50, gradual onset of memory dysfunction in the activities of daily life, subjective complaints of forgetfulness substantiated by performance in a well standardised memory test at least one standard deviation below the mean for young adults, and absence of global impairments or dementia.<sup>14</sup> The adoption of such broad inclusion criteria based on normal values derived from young adults departed from earlier work, which sought to define only a subgroup of elderly people with memory impairment. Though the prevalence of age associated memory impairment is unknown, some researchers have estimated that most people over 50 are affected.<sup>15</sup>

Hypothetical entities such as age associated memory impairment, which have no aetiologically based diagnostic test, are commonly encountered in psychiatry, and criteria for validating them have been proposed.<sup>16</sup> These include detailed clinical description, delimitation from normality and other already accepted diagnoses, laboratory (including necropsy) investigation, and family and follow up studies. No work has yet been reported that attempts to apply these criteria to age associated memory impairment, yet already trials of drug treatment have been widely reported.<sup>17 18</sup>

Concluding much from such trials might be considered to be premature in an entity that has not yet been adequately validated and that, given its broad definition, will include many normal elderly people. The safety and cost of any proposed treatment would need to be carefully balanced against possible benefits. Such benefits will be difficult to assess until further research has helped to clarify factors such as whether age associated memory impairment is an early manifestation of dementia or just a benign inconvenience of growing old.

We believe that age associated memory impairment is too broad a clinical entity to be useful. A narrower concept, closer to Kral's original formulation, would be better. Memory impairment should be redefined using age standardised normal values (rather than those of young adults), and long term follow up studies should be done. Whatever definition is adopted, however, it is important that careful attention should be paid to proper investigation of the syndrome and its