INTEREST in corticosteroid-induced osteoporosis (CIOP) has been enhanced recently by medico-legal concerns and by the publication of studies indicating the potential for prevention and treatment. The difficulties in management induced by these two factors have spurred the development of guidelines for prevention and treatment in the UK [1] and the USA [2]. This brief review will assess the similarities and differences between the advice given in the two publications for prevention, and examine their relevance to practice today.

One of the principal concerns raised by the decision-making algorithms is how best to diagnose CIOP. Clearly, it would be ideal to make the diagnosis before fracture as this may occur within a few weeks of onset of therapy and may be present in up to 30-40% of patients with asthma [3] and rheumatoid arthritis [4]. However, although bone mass measurements figure prominently in both sets of guidelines, there are, as yet, no prospective data indicating that they predict osteoporotic fractures in patients receiving corticosteroids. Indeed, there is some evidence that bone mineral density (BMD) measurements are relatively higher in those who sustain vertebral fractures while receiving glucocorticoids compared to those with post-menopausal vertebral fractures [5]. This has led a group advising on the necessary registration requirements for drugs for CIOP to suggest a higher cut-off for the bone density diagnosis of CIOP, i.e. >1.5 S.D. below the young normal mean [6], compared to >2.5 S.D. for the diagnosis of post-menopausal osteoporosis [7].

The need for guidance on prevention has been highlighted by recent observational studies indicating that only 8% [8] to 14% [9] of patients who are receiving oral corticosteroids receive any preventative therapy. However, it is likely that using preventative therapies in all who are to receive long-term corticosteroids would be prohibitively expensive. It is, therefore, important to contemplate whether we should be targeting therapy by the use of the published guidelines. However, the two different versions are not identical. The British guidelines were published following a consensus meeting of a group of osteoporosis experts [1], while the US recommendations were published by the American College of Rheumatology Task Force on Osteoporosis Guidelines [2]. Neither, therefore, can be considered to have met the criteria for the preparation of guidelines as suggested by the Scottish Integrated Guideline Network [10].

Both sets of guidelines agree that all patients receiving corticosteroids should be given lifestyle advice, including exercise, despite a lack of evidence that such advice is effective even in post-menopausal osteoporosis, never mind CIOP. Both groups also indicate the value of measurement of BMD of the spine and hip. Appendicular measurements of bone mass are not advised by either group, partly because corticosteroid effects are likely to be more marked at axial sites with a high proportion of trabecular bone and also because the effects of the drugs might be hidden by local bone loss in patients treated for inflammatory joint disease. The intervention thresholds, however, differ considerably. Eastell’s group [1] suggest that intervention be targeted at those patients, both men and women, whose BMD is ≥1 S.D. below the age-matched mean at spine or hip (or ≥2.5 S.D. below the young normal mean), although they also suggest intervention in patients who are likely to be on >15 mg of prednisolone or equivalent per day, while the US group suggest calcium and vitamin D for all, despite the controversy as to whether this is effective [11,12], and additional intervention with hormone replacement therapy (HRT) for post-menopausal women, oestrogen-containing oral contraceptives in premenopausal women and testosterone if serum levels are low in men. The interventions advised are similar in the UK guidelines with respect to HRT, despite the lack of anything other than a cohort study to substantiate the advice [13], and testosterone in men, which has recently been shown to be effective in a randomized controlled trial (RCT) [14]. Both groups advise alternative strategies for those unable or unwilling to take HRT and the advised alternatives include switching from prednisolone to deflazacort (UK only), the use of a bisphosphonate (UK and USA), calcitriol (UK only) and calcitonin (US only). Deflazacort has recently been marketed in the UK, although not with a bone-sparing licence perhaps because of its controversial effects on bone [15,16]. Calcitriol has been advised in the UK because of its success in preventing spinal bone loss in the largest primary prevention RCT to date [17]. However, the US/ACR group mention it only as an aside, but perhaps do not recommend it specifically because of the need to monitor serum calcium. Nasal calcitonin does not receive a mention in the UK, partly because only observational data were available at the time of publication (although an RCT has been published more recently [18]), but also because it is only available as a parenteral preparation, whereas in the US it is marketed as a nasal spray. No specific
bisphosphonate is advised in the US/ACR guidelines, perhaps because the only one in the group which has been shown to be effective in prevention trials is etidronate [19, 20], and this drug is not available in the USA for osteoporosis. However, on the basis of the published studies and work in progress, etidronate has recently been given a specific licensed indication for corticosteroid induced osteoporosis in the UK.

Follow-up strategies also differ. The US group advice is complex and involves assessing 24 h urinary calcium 1 month after corticosteroids are commenced. If urinary Ca is >300 mg/day and the patient is not on calcitriol, it is advised to add a thiazide diuretic which has not been studied in CIOP. If on calcitriol or on oral calcium, adjustment of the dose is advised. For the UK, in all untreated patients a repeat spine BMD after 1 yr of deflazacort or a bisphosphonate (etidronate) or thiazide diuretic which has not been studied in CIOP. If on calcitriol or on oral calcium, adjustment of the dose is advised. Further advice from the USA is to repeat BMD (site not stated) and if the loss is >5%, a change from prednisolone to etidronate is advised. Further advice from the USA is to repeat BMD (site not stated) and if the loss is >5%, a change in therapy is suggested.

What are we to make of the differing advice? Both sets of guidelines have been produced based on a great number of assumptions and with the help of a limited range of RCTs. There is certainly no documented evidence of the success of either strategy in preventing corticosteroid-related fractures and until such evidence is available it seems reasonable to follow the UK advice until it is clear whether the more aggressive US approach is cost effective.

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REFERENCES
Most rheumatologists will be aware of the anniversaries of our two major charities: the Diamond Jubilee of the ARC in 1996 and the Golden Jubilee of Arthritis Care in 1997. There is one other important anniversary in 1997 which should not be overlooked: the Silver Jubilee of the British League Against Rheumatism (BLAR). Despite its 25 yr service to rheumatology, BLAR remains a somewhat nebulous concept to many people. It is, quite deliberately, a low-key organization, but it is none the less an important one.

BLAR has two unique, and important, features. First, it is the only place at which all the organizations dealing with people with musculoskeletal disorders meet. BLAR is an organization of organizations—it has no individuals as members. At present, it has 23 member organizations, which are listed below. As you can see, these cover the whole spectrum of locomotor disorders from both the patients’ points of view and that of the wide variety of health care professionals involved in their treatment. This unique structure gives BLAR an unequalled breadth of perspective. At a time when all health care, and particularly that relating to chronic diseases, is under threat, the co-ordination of patient and professional views is particularly important. One tangible product was the Purchaser’s Pack produced by BLAR in 1995, which has proved a valuable resource in negotiations regarding rheumatology services. An update of this will be produced in 1997 as a Silver Jubilee document. BLAR has also carried out some research projects based on local BLAR groups, and at present has a grant from the Department of Health aimed at producing Patient Centred Standards for the Care of Individuals with Arthritis. This involvement of both patients and professionals in setting the quality benchmarks for our services is likely to have far more effect than professionals alone defending their own patch—politicians and purchasers are now adept at ignoring specialists’ views which are not supported equally by their ‘customers’.

The second function is as our entrée to European rheumatology. The European League Against Rheumatism (EULAR) is derived from the National Leagues of all the countries of Europe, and at present the British League contributes its Treasurer, its Editor and the Chairs of four of its eight standing committees. EULAR has moved in recent years from a rather narrow responsibility for organizing meetings to a wider remit relating to clinical practice, research and, especially, education. Closer links with colleagues in Eastern Europe is providing an exciting educational opportunity for all professions involved in rheumatology, and patient groups also derive both knowledge and inspiration from similar organizations in other countries with differing political systems. Professional education is providing a particular challenge at the moment as different systems attempt to achieve greater uniformity. Cross-European educational exchanges are proving valuable in improving mutual understanding, and the amount of general professional co-operation, and particularly research, being undertaken across borders is increasing rapidly. As with all things ‘European’, this could have wide-ranging effects in the future, and it is important that, through BLAR, we continue to influence the direction of its progress.

Partnership between patients and providers, and the European dimension to our practice, are two of the most important topics in health care provision in 1997. The foresight of the founders of BLAR 25 yr ago is amply demonstrated by its central position in these two essential aspects of our present lives. At the time of its Silver Jubilee, BLAR has never been more important to the whole of British rheumatology, and looks set to have an even more vital role in its next 25 yr.

I. HASLOCK

MEMBER ORGANIZATIONS OF BLAR
Arthritis Care
Arthritis and Rheumatism Council for Research
British Coalition of Heritable Disorders of Connective Tissue
British Institute for Musculo-Skeletal Medicine
British Health Professionals in Rheumatology
British Orthopaedic Association
British Paediatric Rheumatology Group
British Scoliosis Society
British Sjögren’s Syndrome Association
British Society for Rheumatology
British Society of Rehabilitation Medicine
Lady Hoare Trust for Physically Disabled Children
Lupus UK
National Ankylosing Spondylitis Society
National Association for the Relief of Paget’s Disease
National Back Pain Association
National Osteoporosis Society
Primary Care Rheumatology Society
Psoriatic Arthropathy Alliance
Raynaud’s and Scleroderma Association
Rheumatoid Arthritis Surgical Society
RCN Rheumatology Nursing Forum
Society for Back Pain Research