marker for more cautious cyclists cannot be accepted uncritically.

Keatinge and Parry quote a secondary source to the effect that cycle use in Victoria decreased by 40% after wearing a helmet became compulsory. Cycling by children and teenagers decreased by an average of 36% in the two years after the law was introduced, but cycling overall increased.[5]

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Pain in the neck, shoulder, and arm

Terminology used is unhelpful

EDITOR,—The series title "ABC of Rheumatology" implies that the fundamentals of the subject are clearly set out. The article on pain in the neck, shoulder, and arm, however, is likely to result in more confusion than enlightenment.[1] If "mild or moderate degenerative changes [in the neck] are often seen in asymptomatic individuals" then on what evidence do the authors state that "common causes [of pain referred to the arm include]... degenerative changes"? What are the distinguishing features that allow one to conclude that "degenerative changes, including apophysial joint or ligamentous hypertrophy and osteophytes," are among these common causes? And what is meant by mechanical disorders? Does this term refer to a prolapsed cervical disc or include degenerative changes as well?

I agree that "early mobilisation or manipulative techniques... are usually helpful," but where does the idea that "manipulation involves moving the joint beyond normal range" come from? If one attempted to do this it could result in dislocation or fracture.

What is meant by "periarticular disorders [of the shoulder]"? Is this the same thing as disorders of the rotator cuff? What is the evidence for stating that "impingement or tendinitis of the rotator cuff is the commonest problem [causing shoulder pain"]? And what is meant by impingement?

I find it difficult to understand why, if an injection is required to treat a disorder of the rotator cuff, it is given into the subacromial bursa. Surely infiltrating the part of the rotator cuff that contains the lesion would be more effective? Furthermore, the rotator cuff consists of the fibrous capsule of the shoulder joint blended with the tendons of the subscapularis, infraspinatus, and teres minor muscles; it is therefore inaccurate to refer to the "musculotendinous rotator cuff."

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Long acting steroid injections are safe and effective if given correctly

EDITOR,—The article on pain in the neck, shoulder, and arm advises on the choice of steroid preparations for intra-articular and soft tissue use in the conditions mentioned.[1] I disagree with the authors that the use of long acting depot preparations should be avoided. Several studies have shown that hydrocortisone acetate is the weakest and triamcinolone hexacetonide and triamcinolone acetonide are the most potent of the steroids currently available in terms of both efficacy and duration of action (M deSilva *et al*, 15th international congress of rheumatology, Paris, 1981).[2,3] Furthermore, relatively large volumes of hydrocortisone acetate are needed for a reasonable dose of steroid, and this is particularly relevant in soft tissue injections for medial and lateral humeral epicondylitis, in which injections have to be made into tight restricted spaces. With the more potent preparations, smaller volumes can be used.

There has been some concern about the use of depot methylprednisolone acetate in soft tissue injections for, for example, the carpal tunnel syndrome. This relates mainly to the fact that this preparation, like hydrocortisone acetate, is a microcrystalline suspension so that crystals may be retained in soft tissues long after the injection. This also explains the postinjection flare seen more commonly with these preparations[4] and is extremely rare with triamcinolone hexacetonide. Few of my patients have complained of postinjection pain after the use of this preparation for intra-articular and soft tissue injections, including for golfer's and tennis elbow. The important factor is that these preparations must be used in the proper dosage and not repeated more than once in superficial soft tissue sites. The need to repeat injections is usually due either to poor technique or to wrong diagnosis.

I also dispute the rationale of injecting steroids and local anaesthetic into the subacromial bursa for disorders of the rotator cuff when direct injection into the shoulder joint is the standard practice. Injection into the subacromial bursa would be more appropriate in acromioclavicular arthritis as direct access to the joint is not particularly easy.

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Authors' reply

EDITOR,—Malcolm DeSilva is inaccurate in stating that we recommended that long acting steroid preparations should be avoided for intra-articular injections. In fact, we did not recommend a particular preparation for intra-articular use. Conventional practice is to use long acting preparations when injecting into joints. For soft tissue injections, long acting preparations provide maximum benefit, but this has to be weighed against the greater tendency of these compounds to cause local tissue necrosis if they are not injected into a cavity or if they are accidentally infiltrated into the skin.[1,2] Injection into a tendon may cause it to rupture.[3] For general use we recommend hydrocortisone, although experienced practitioners may prefer to use a long acting preparation in certain situations.

We disagree that intra-articular injection of the shoulder joint is the standard practice for disorders of the rotator cuff. There is a close anatomical relation between the rotator cuff and the subacromial bursa, and reactive inflammation in this bursa is often present in tendinitis of the rotator cuff. The subacromial space or bursa is the recommended site of injection for treating the commoner causes of shoulder pain—namely, impingement, tendinitis of the rotator cuff, and subacromial bursitis.[4]

With regard to degenerative changes in the cervical spine, it is accepted that there is a high prevalence of asymptomatic radiological osteoarthritis in the population. When these changes are seen in a patient presenting with neck pain it therefore does not automatically follow that the neck pain is due to the osteoarthritic changes, and other reasons should be sought. In patients with neck and radicular symptoms, however, advanced osteoarthritic changes causing entrapment of a nerve root may be seen on magnetic resonance imaging. Gabriel Symonds agrees that mobilisation or manipulative techniques aimed at restoring the full range of movement may be helpful in treating neck disorders. In such cases, when a joint is restricted in movement mobilisation entails moving the joint within its range while manipulation entails moving the restricted joint beyond its "normal" range and attempting to improve the range or restore the full range.

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Detection of prostate cancer

Recent evidence suggests screening may be justified in high risk younger men

EDITOR,—Screening for prostate cancer has been the subject of much debate, and Fritz H Schröder considers the published data.[1] His conclusion that population based screening is not yet justified is fair. There is much anxiety that screening for prostate specific antigen will detect a large number of indolent cancers, whose detection will not decrease mortality, and because of false positive results morbidity and mortality may be increased.[1,2] Recent data from a nested case-control study, however, are an important addition to knowledge.[3]

Serum samples were taken from 68% of 22 071 doctors randomised in a continuing study of β carotene in 1982. Three hundred and thirty six men who provided serum samples developed prostate cancer during 10 years of follow up. Three aged matched controls who also supplied serum samples were selected. When a cut off concentration of prostate specific antigen of 4·0 ng/ml was used, at four years of follow up the sensitivity of detection was 87% for aggressive tumours but 53% for non-aggressive cancers. Specificity was more or less unchanged over time at 91%. Nearly 80% of all aggressive prostate cancers occurring within five years would have been detected by a single measurement of prostate specific antigen. Importantly, only 32 of 80 cancers arising more than five years after the sampling time were not aggressive.

Thus most cancers detected were aggressive, and only a small number of men with prostate specific antigen concentrations >4·0 ng/ml would have a diagnosis of a non-aggressive cancer preceded by a long disease free interval. This was also true for the subset of men who were aged under 70 when the diagnosis was made. Compared with men with antigen concentrations of <1·0 ng/ml, those with concentrations of 2·0-3·0 ng/ml had a relative risk of all prostate cancer of 5·5 and a relative risk of aggressive cancer of 6·8.

It is important to note that this was a once only test, and the potential benefit of repeat screening or the addition of other screening modalities was not available. For men older than 70 watchful waiting may be appropriate management. This new study shows, however, that in this population of American doctors the mean age at diagnosis of prostate cancer was 68·7 years, most of the cancers detected were aggressive, and three quarters of deaths in the cases were directly related to the diagnosis. Thus in younger men screening for prostate specific antigens may be justified, particularly for those in higher risk groups, such as those with a family history of prostate cancer.[4,5]

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Methods are changing rapidly

EDITOR,—Fritz H Schröder discusses the controversies surrounding the early detection of prostate cancer and some differences in attitude between Europe and North America.[1] It is unfortunate that he emphasises screening rather than treatment. The uncertainty about the ability of treatment to modify the natural course of the disease should be resolved much more urgently than uncertainty about the value of screening, which can be addressed only when certain conditions are met—namely, that the natural course is understood, there is an agreed policy on whom to treat and by which method, and the cost of finding cases is economically balanced in relation to expenditure on medical care.[2] All these questions have yet to be answered in prostate cancer.

One flaw in screening studies is the rapidity with which methods of detection change. Testing for prostate specific antigen has been used routinely only in the past decade; already, different molecular forms of the antigen discovered recently suggest that newer assays may be more specific.[3] In the next five years a multiplicity of tests will probably emerge, with a higher detection rate than the 5·8% recently reported in a screening study.[4] The second problem with screening trials is that they do not specify the type of treatment for cancer provided. It is therefore essential and logical that the efficacy of treatment should be tested before the benefits of screening are assessed. Schröder refers to such studies being carried out in Scandinavia and Britain. These trials are unlikely to provide the answers required. In Scandinavia the randomisation protocol, which excludes high grade tumours, will prevent a clear resolution of the problem. In Britain the Medical Research Council's study, launched last year, will find it hard to recruit sufficient patients as no provision was made for finding cases, which is the only means of recruiting enough men for randomisation.

A valid and ethically justified study comparing radical surgery with watchful waiting could be conducted only by targeting a population of men who had been fully informed about the consequences of screening and understood that watchful waiting might be offered. Such a trial is currently being organised on a pan-European scale, and it is now the responsibility of governments, the Medical Research Council, and the European Commission to identify priorities and respond to the urgency of providing a definitive answer to the problem by giving adequate support where it is most needed.

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Evaluation of sexual health interventions

EDITOR,—Ann Oakley and colleagues rightly emphasise the need for rigorous evaluation of sexual health interventions.[1] Much early sex is unplanned, and, even though it is encouraging that many more young people now report using condoms,[2] there is a need to publicise the timing and availability of emergency contraception for those occasions when some form of failure occurs, be it failure to buy a condom, failure to use it, or its failure to remain intact.

Improving knowledge of the availability and appropriate use of emergency contraception has been identified as one of the relatively few opportunities for reducing the high incidence of unplanned pregnancy in Britain, a target in the *Health of the Nation.* Many women, however, while vaguely aware that a postcoital method exists, are unsure of when it can be used and where it is available.[3]

Last summer we undertook two surveys of publicity for emergency contraception. In one we visited a random sample of 30 general practices in Camden and Islington to see if there was anything in the waiting room to suggest that the service was obtainable there. Only a third of the practices had either specific leaflets or posters about emergency contraception. Their impact, however, varied considerably, from prominently displayed posters to out of date leaflets positioned at the back of a rack. A questionnaire survey of 113 young people's clinics and advice centres was conducted and achieved a response rate of 70% (n=79). Although leaflets were available in 70, 24 reported that they were displaying a leaflet published by the Family Planning Association in 1984, which refers to the "morning after pill" and should have long since been replaced.[4] There were isolated examples of well designed posters and reminders the size of a credit card.

Several commentators have drawn attention to the need for better publicity, and, as the Health Education Authority prepares to launch an initiative on emergency contraception, the opportunity to evaluate the impact should not be lost. The key indicators will be public knowledge of where and when emergency contraception is available, the proportion of women seeking terminations who remain unaware of or unable to access emergency contraception, and the impact on trends at district level in rates of emergency contraception and termination of pregnancy.[5]

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Who uses the *Cochrane Pregnancy and Childbirth Database*?

EDITOR,—The rationale for the Cochrane Collaboration's publication of systematic reviews electronically is that this medium facilitates updating of reviews in the light of new data and valid criticisms.[1] Dissemination by electronic publication is, however, novel, and the medium is still being developed. In 1993 a survey reported limited uptake of the *Oxford Database of Perinatal Trials* in English obstetric units.[2] Yet correspondence[3,4] suggested more widespread use of this database's successor, now produced by the Cochrane Collaboration.[5] I undertook a postal survey of all British subscribers to the *Cochrane Pregnancy and Childbirth Database* in May 1994.

The questionnaire elicited details about place of work, job, and uses made of the database. Three hundred and eighty seven people were sent the questionnaire, of whom 274 (71%) responded. Most worked in organisations providing care (140), all but 15 of them district general or teaching hospitals. Other sites included academic institutions (58) and purchasing authorities (42). The responses clearly identified 173 separate organisations in which at least one member subscribed to the database.

Three professional backgrounds predominated: midwives (83), doctors (81), and information specialists (56). Other respondents included managers, administrative staff, researchers, audit workers, and members of the National Childbirth Trust. Thirty five respondents were responsible for distributing a copy of the database to 68 further people; and 112 respondents made their copy of the database accessible to others, usually by installing it on a computer in a common area, often a library.

Most (239) of the respondents had viewed the information on the database, and most reported multiple uses. The database was most commonly used to improve personal knowledge and the knowledge of others but also for guiding research, developing clinical guidelines, and informing audit (table).

The most important findings about the *Cochrane*