In 1984 the International Commission on Radiological Protection first issued a statement indicating that no special limitations on exposures were required during the four weeks following the onset of menstruation.¹ This change and the reasons for it were widely discussed,^{2,3} and we looked forward to receiving clear advice to abandon the logistically complicated and operationally inefficient "10 day rule." In the event this was not forthcoming because of the ambiguity inherent in the second clause of the pregnancy question. This means one thing to those patients with an understanding of human physiology and another to those without such understanding. Any informed, sexually active woman in the second half of her cycle must answer "yes," and implicit in this interpretation of the question is retention of the 10 day rule.

The basic science suggests that it is the traditional interpretation of pregnancy that is important, and this can be established by asking "Have you missed a period?" This is the question that we now ask, which frees us from the unnecessary constraint of the 10 day rule without ambiguity, and for which we have the support of the director of the National Radiological Protection Board (R H Clarke, personal communication).

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Child health surveillance

SIR,—In his leading article Mr D M B Hall considered recommendations for the training requirements of general practitioners wishing to participate in child health surveillance.¹ I believe that the undergraduate years should not be forgotten in laying the foundations for appropriate knowledge and skills.

As outlined by Dr Leon Polnay,² in the very short period that is available for teaching basic paediatrics and child health medical students must be given every opportunity to learn some fundamentals of health surveillance—for example, they should learn to become competent at examining a newborn baby to detect serious congenital abnormalities; to test stability of the hip joint; to check the normal placement of testes; to explain the rationale and implementation of screening for phenylketonuria and hypothyroidism; to learn how to measure and weigh children accurately and to perform a simple developmental assessment; to understand the principles that underlie the monitoring of growth and the use of growth charts; to use simple distraction methods in the first year of life to test for sensorineural hearing loss at an early stage; and, most importantly, to learn how to use the doctor-patient contact to promote health through education and to listen to parents' anxieties regarding their children that might help in the early diagnosis and management of a wide variety of problems.

The importance of acquiring a sound basis of understanding in the simple skills of health surveillance could be further reinforced by requiring their competent demonstration in paediatric

examinations: many of the skills lend themselves to objective clinical assessment. Awareness that students are almost certain to be asked to show a basic competence in these skills would, I have little doubt, improve their mastery. Greater efforts must also be made to help senior house officers in paediatrics, most of whom will enter general practice, to develop these same skills at the same time as sharpening their clinical approach in looking after sick children in hospital.

As clinical teachers we have also to remind ourselves that far too little curricular time is spent teaching about the normal child—especially the wide range of normal biological variations in body structure, function, and development that can appear as worrying potential problems to parents. Much needless anxiety results when doctors fail to understand biological variation as a cause of parental anxiety. Human growth and development is a synthesis of all the basic sciences, lending itself to an interdisciplinary educational approach in the preclinical years. Medical students are invariably launched prematurely into a disease oriented programme of instruction without the necessary preparation for understanding normality. Without this the delivery of child health surveillance will not be fully appreciated.

I fully support the further training and better supervision of all who deal with children—whether they be general practitioners, health visitors, community doctors, or paediatricians. This commitment would, however, be made much easier for us all if the soil was better prepared during the undergraduate years.

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Osteoarthritis

SIR,—Professor V Wright suggests that osteoarthritis ought to be the subject of extensive research as it is the most common of the rheumatic diseases, results in many days off work, puts more on the drug bill, and affects 10% of the population aged over 60 with disability.¹ We agree wholeheartedly with his remarks and note that he indicates that crepitus is the feature with the most discriminatory power in diagnosing osteoarthritis. We have suspected for some time that crepitus is among a range of useful vibrations emitted from human joints and have tried to devise means of objectively assessing these vibrations.² We use small transducers taped around the joint to detect vibrations that occur as the hip and knee are manipulated or simply flexed and extended. Some artefact has been identified and this is easily distinguished from true vibration.³ Our first attempts to implement this vibration recording technique were in detecting congenital dislocation of the hip.⁴ Early detection of this condition is possible using the well known tests of Barlow and Ortolani, but only if the resulting vibration emission, the hip clunk, is analysed for telltale signs of abnormality. We have found that many joints produce vibrations in their normal range of motion, and the discrimination between normal and abnormal is based on a subtle analysis of frequency content and energy.

In the adult knee vibrations can also aid the diagnosis^{5,6}; however, the rate of movement affects the vibration considerably. The crepitus we obtain from controlled movement of the normal patellofemoral joint is more regular than an electrocardiograph signal and is caused by the patella sticking and slipping in the trochlear groove of the femur as the knee is flexed and extended.

Such vibration techniques are, we believe, a new technology within the grasp of all those who are interested in the locomotor system.

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Calcium channel blockers in myocardial infarction

SIR,—None of the studies cited by Dr Peter Held and colleagues¹ were designed to assess the protective effects of calcium channel blockers against coronary artery disease. Furthermore, coronary artery disease is caused by multiple cardiovascular risk factors such as smoking, high cholesterol levels, hypertension, and genetic predisposition. Although the calcium channel blockers in effect improve the coronary blood flow by reducing the oxygen demand by the heart and by augmenting the oxygen supply, it would be foolish to assume that they may protect against heart attacks and death even in patients who may harbour other uncorrected (or uncorrectable) cardiovascular risk factors. For example, if someone continues to smoke, is physically deconditioned, and has other risk factors, no drug should be expected to prevent atherosclerosis. Therefore, the authors' basis for the critical review should be soundly rejected.

In the studies quoted by the authors the populations were not homogeneous, and various clinical baseline variables were not equally distributed. Thus, again, it is clearly fallacious to infer that "the data suggest a somewhat higher probability of harm than benefit" from the calcium channel blockers. I am not aware of any unwarranted claims that calcium channel blockers have been shown "to prolong life."

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- 1 Held PH, Yusuf S, Furberg CD. Calcium channel blockers in acute myocardial infarction and unstable angina: an overview. *Br Med J* 1989;299:1187-92. (11 November.)

SIR,—Dr Peter Held and colleagues¹ concluded that calcium blockers cannot be recommended for routine use to patients with acute myocardial infarction to reduce death and reinfarction. Results from the Danish verapamil infarction trial I (DAVIT I)² were included, but the results from the Danish pilot study^{3,4} were not. From the overview the reader who does not know DAVIT I might get a wrong impression of the design and outcome of that trial. We intended to treat patients admitted with acute myocardial infarction with verapamil or placebo for six months after admission. We knew that 40-50% of the patients admitted to coronary