tection should be available in time for the dipping season next year. General practitioners in rural areas can help by impressing on patients the importance of following the safety advice on the labels of all farm chemicals, including sheep dips, whether they contain organophosphates or not.

Occasional reports are received of patients suspected to be suffering long term, recurrent effects from use of organophosphate sheep dips. Such effects do not equate with the known symptoms due to organophosphates used in sheep dips in Britain. The vague, flu-like symptoms of organophosphate poisoning resemble those of several zoonotic diseases (leptospirosis, brucellosis) encountered in farm livestock. Awareness of the possibility of zoonotic disease is essential for a doctor faced with such symptoms in a patient who is associated with a farm.

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1 Murray VSG, Wiseman HM, Dawling S, Morgan I, House IM. Health effects of organophosphate sheep dips. *BMJ* 1992;305:1090. (31 October.)

EDITOR,—Virginia S G Murray and colleagues draw attention to the acute toxic effects of organophosphates in sheep dips,¹ which have been well known to the farming community in north Devon and described as “dip flu.” In the summer of 1991 the public health medicine department in north Devon set up an information service as farmers were concerned about both acute toxicity and long term effects.

The service presented the opportunity to obtain structured information from the 43 people who made contact with the department and answered a questionnaire. Naturally they are a skewed sample, but the findings suggest that there is a considerable problem with toxicity weeks and months after exposure to organophosphates. People who may have been dipping sheep for years suddenly develop symptoms. These are similar to those of myalgic encephalomyelitis: weakness, muscle pains, mood swings, irritability, and chronic tiredness. The symptoms vary from day to day but have a dramatic effect on the quality of life of the people concerned, many of whom have had to leave sheep farming altogether, with a major impact on their families and their livelihoods.

Anecdote in the local community suggests that many other people who work with sheep have suffered similar symptoms, and further investigation is required. The poisons reference centre and the department of occupational health medicine in Birmingham have piloted further work among these 43 people in north Devon. A case-control trial is planned. There is no diagnostic test specific to chronic organophosphate toxicity, and part of the pilot study was to determine appropriate markers, using psychometric, toxicological, and neurological tests.

It seems that organophosphates may have a cumulative toxic effect, but the data are not easily analysed because of problems in measuring exposure and protection, etc. Whether we are dealing with a cohort effect or a chronic neurological toxin with long term damage to the nervous system remains to be elicited.

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EDITOR,—We were interested to read the letter by V G Murray and colleagues concerning the acute clinical effects after exposure to sheep dips.¹ We

report a case of symptomatic right ventricular tachycardia that occurred after exposure to sheep dip.

A previously fit 28 year old farmer was referred to the outpatient department by his general practitioner because of transient feelings of faintness for two months. These symptoms occurred once or twice a day while the patient was working and were accompanied by chest tightness. He had to rest for a few minutes before resuming activities. There was no relevant personal or family history, and there were no abnormal clinical signs. A resting electrocardiogram obtained by his general practitioner showed short runs of ventricular tachycardia (heart rate 150/min).

In the preceding two months he had been dipping sheep (Osmond's Gold Fleece Sheep Dip—diazinon 60%, epichlorhydrin 1%, emulsifiers 8%, and solvent 31% weight for weight; manufacturer's details) without wearing protective clothing. Twenty four hour electrocardiographic recording showed non-sustained, broad complex tachycardias lasting for up to 30 beats, and a 12 lead electrocardiogram indicated a right ventricular origin (QTc=0.35 s).

Serum electrolyte values, thyroid function, and results of echocardiography, coronary angiography, and left ventricular angiography were normal. Pace mapping from the right ventricular outflow tract reproduced complexes of the morphology of the arrhythmia.

We had excluded ischaemic heart disease and overt cardiomyopathy as a cause of the arrhythmia. Our diagnosis was ventricular tachycardia originating from the right ventricular outflow tract. We did not take a biopsy sample of the right ventricle, but we considered a differential diagnosis of right ventricular outflow tract dysplasia.^{2,3} Treatment with verapamil and flecainide did not totally suppress the non-sustained ventricular tachycardias. The symptoms disappeared and treatment was stopped after five months. The patient was advised to avoid sheep dipping.

Two months later he was handling sheep which had recently been dipped. He felt unwell and had recurrent symptoms of faintness until metoprolol was prescribed. Subsequent 24 hour monitoring disclosed non-sustained ventricular tachycardia.

Organophosphorus pesticides have been associated with QT prolongation and torsade de pointes.⁴ We did not measure erythrocyte cholinesterase activity⁵ and it remains unproved whether the chemical exposure was the actual cause of the arrhythmia. However, the temporal sequence on two occasions suggests a causal link between the organophosphate diazinon and precipitation of more sustained episodes of ventricular tachycardia with symptoms.

Details of this case have been sent to the West Midlands Poisons Information Centre for the Trent and West Midlands Regions; the National Poisons Unit, Guy's and Lewisham NHS Trust; and the Health and Safety Officer, Belgrave House, Northants NN1 2BF.

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- 1 Murray VG, Wiseman HM, Dawling S, Morgan I, House IM. Health effects of organophosphate sheep dips. *BMJ* 1992;305:1090. (31 October.)
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Abortion in the first trimester

EDITOR,—David Paintin's editorial on abortion in the first trimester¹ has generated considerable correspondence,² naturally enough from those with strong views on the subject. Most ordinary people do not hold radical views on abortion. An unwanted pregnancy is often a major life crisis for the woman concerned, and it is probably only then that she really explores her moral position on the subject. The demand for early termination of pregnancy currently exceeds the willingness of the health service to provide a service, indicating that an appreciable proportion of women have come to the conclusion that termination of pregnancy is acceptable to them.

It is essential, in our free society, that the views of the radical few should not be forcibly applied to the silent majority. Furthermore, the current legal position, whereby two medical practitioners “decide” who may or may not have an abortion, is anachronistic. A doctor cannot gain any real insight into a woman's social position or her mental state in a consultation lasting for a few minutes. Unfortunately, there are still practitioners who refuse a request for termination of pregnancy from a socially disadvantaged woman who has had previous abortions, on the basis that the lesson should by now have been learnt, while agreeing to a request from an articulate woman in a higher social class, with whom they have greater empathy.

Any woman with an unwanted pregnancy should receive adequate help and support from both relatives and the social services if she chooses to continue that pregnancy. Similarly, if a woman chooses to terminate her pregnancy legislation and the health service must provide the facilities to allow her to exercise that choice.

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- 1 Paintin D. Abortion in the first trimester. *BMJ* 1992;305:967-8. (24 October.)
- 2 Correspondence. Abortion in the first trimester. *BMJ* 1992;305:1221-2. (14 November.)

EDITOR,—David Paintin argues that women should have the right to choose abortion.¹ In a postfeminist society it seems to me that women, far from being freed from unplanned pregnancies, are being asked to assume sole responsibility for these pregnancies. They are perhaps being asked to “choose” abortion.

Men, on the other hand, seem to be absolved from any responsibility to women whom they have impregnated. After all, if the woman is pregnant and is free to choose abortion then the male society has no further obligation to her. I believe that this represents a dereliction of duty on the part of men towards women.

I am one of those whom Paintin describes as “maintaining that abortion is always wrong.” But I also believe that the hazards to women's health occasioned by unplanned pregnancy are compounded by the perception of unplanned pregnancy as the woman's problem. Until men honour their responsibilities to women these hazards will remain.

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- 1 Paintin D. Abortion in the first trimester. *BMJ* 1992;305:967-8. (24 October.)

EDITOR,—David Paintin's thoughtful leading article¹ has produced correspondence from both sides of the abortion argument.² In practice abortion on demand has always been available in the

private sector, where counselling has been less geared towards offering alternatives to abortion than to discussing ways and means of achieving it. It seems right that patients who cannot afford private health care should be treated in the same way by the NHS. Proper counselling, which must include a discussion of the alternatives to abortion, is equally important in both sectors, but the ultimate choice should be in the hands of the woman herself and not subject to doctors' different interpretations of the law.

What is really depressing about the abortion scene in England and Wales is the rise in unplanned pregnancies and hence abortions at a time when contraception has never been more effective or more easily available.

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Screening for Down's syndrome

EDITOR,—Women are selected for antenatal diagnosis of Down's syndrome if they are at high enough risk of the disorder to warrant the hazards and cost. Until recently selection was based largely on maternal age, but maternal serum testing and ultrasound screening are now also used.¹ Wald *et al* have reported on the extent of serum screening in England and Wales.² A national survey that I carried out provides information on both methods.

Last January I sent a questionnaire to each health authority in England and Wales and the corresponding bodies in Scotland, Northern Ireland, Guernsey, Jersey, and the Isle of Man (taken from the *Medical Directory*). For simplicity each is referred to here as a district. Information was requested on current practice and changes being considered for the coming year, including whether women (not necessarily all ages) were routinely offered screening of multiple serum markers, reinterpretation of the serum α foeto-protein concentration used in screening for neural tube defects, and ultrasound screening.

I received replies from all 213 districts with obstetric units. In 17 practice differed among the units, and I regarded a district as using a specified method if at least one unit used it. The table shows that not only has serum screening for Down's syndrome become established in the United Kingdom and is projected to become widely available in the future but use of ultrasound screening is also common and set to expand. Of the 52 districts that

Methods of screening for Down's syndrome used in districts in United Kingdom

	Serum screening			All
	Multiple markers*	α Fetoprotein	No serum screening†	
<i>Current practice</i>				
Ultrasound screening	21	14	17	52
No ultrasound screening	59	39	63	161
Total	80	53	80	213
<i>Projected practice‡</i>				
Ultrasound screening	55	6	10	71
No ultrasound screening	108	17	17	142
Total	163	23	27	213

*Currently all use human chorionic gonadotrophin and α fetoprotein, 47 with unconjugated oestriol and 34 without.
†Currently 33 measure α fetoprotein but do not use it in screening for Down's syndrome.
‡Those currently using the screening method or considering it for the future.

used ultrasound screening, 42 acted on anomalies associated with Down's syndrome identified in a routine scan (for example, renal dilatation or choroid plexus cysts) and 41 on biometric variables (femur length (28) and nuchal thickness (31)).

The survey suggests that many districts may soon be using both screening methods, and detection would be maximised if the results of one were taken into account when the other was interpreted. Information is not available on the correlation, if any, between the biochemical and ultrasound markers so this cannot be done formally, but that is not the main obstacle to a combined approach; rather it is timing. Serum screening is usually done at 15-17 weeks' gestation and a scan for anomalies at 18-20 weeks. High rates of detection of nuchal oedema have been reported with ultrasound screening at 10-14 weeks' gestation,^{4,5} and serum screening can also be done before 15 weeks,⁶ so combined screening at about 13 weeks is feasible. The scan at 18-20 weeks would still, however, be needed to detect structural abnormalities, and the additional cost of an early scan might be considered to be too high.

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Cycle helmets

EDITOR,—The only evidence on the effects of increased helmet wearing among populations of cyclists shows no significant (or negative) benefits in the rates of head injury. Time series analysis of increased helmet wearing in the United States found no reduction in head injuries and deaths of cyclists, and Rodgers stated that "bicycle-related fatalities are positively and significantly associated with increased helmet use."¹

The official study of the effects of compulsory helmet wearing in Victoria, Australia, does not show any significant benefit from passage of the law enforcing helmet wearing (A P Vulcan *et al*, 36th annual proceedings of American Association for Automotive Medicine, 5 October 1992). During the year studied the number of people killed or admitted to hospital as a result of all road accidents was 12% below the previous year's figure. On the basis of the figures we have for the reduction in cycle use, it seems that the law resulted in an increase in the rate of injuries other than injuries among cyclists.²

The law in Victoria resulted in a reduction in the numbers of people cycling, with consequent disadvantages for public health: reductions were 41% among recreational cyclists and 37% among commuters in the Melbourne area³ and 44% among 12-17 year olds in Victoria (A P Vulcan *et al*, 36th annual proceedings of American Association for Automotive Medicine, 5 October 1992). A considerable reduction also occurred when compulsory helmet wearing was introduced in New South Wales.⁴

The official report never considers the possibility of adaptive or compensatory behaviour by

cyclists or other road users to explain the apparent failure of the law. This follows the trend in neglecting the effects of other regulations which appear not only to have failed but to have increased danger to vulnerable road users.³ Reducing danger to cyclists will require more than the so called primary measures outlined in Helen R Trippe's editorial⁵: necessary measures will have attention diverted away from them by (incomplete) concern about helmets.

There has been increasing concern about the massive health disadvantage of extensive use of cars and lorries, and the excessive dependency of our society on these modes of transport.⁶ The medical establishment has failed to address the problem properly. This should be remedied by a call for a major reduction in our dependency on motor vehicles and opposing moves to compulsory wearing of cycle helmets.

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Care in the community in Westminster

EDITOR,—Contrary to Minerva's gloomy predictions,¹ Westminster is well prepared for taking on care in the community next year. In view of the national shortage of occupational therapists the problem of delays in assessments for aids and adaptations in the home is not peculiar to Westminster. Both health and local authorities are examining how best to use scarce resources most effectively to speed up the process.

Wheelchairs are not, in fact, a responsibility of the local authority. Occupational therapists can—and do—advise and assess users, but the supply of wheelchairs is down to the NHS, and both Riverside and Parkside Health Authorities have a wheelchair service.

The underlying issue is how to improve the coordination of services so that users are not "victimised" by organisational boundaries. Westminster has addressed this by developing an assessment and care management service, by which packages of services will be tailor made to meet individual needs. I am confident that this, together with an increase in general practice fundholders, will be the key to more responsive services.

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1 Minerva. *BMJ* 1992;305:1106. (31 October.)

Dentists and the NHS

EDITOR,—Minerva reports that in North America people with less discretionary income do not choose to spend their money on dentistry.¹ With the current dispute between the government and dentists in Britain over fees for NHS work, I believe that many patients in Britain are likely to