for which they have been nominated to implement the recommended procedure.[1]

Can I assure Dr Lock that the present registrar of the royal college sought the views of the Committee of Postgraduate Medical Deans, shortly after publication of the report, on the proposed role for deans. Deans were willing to accept this responsibility, acting as the officer to whom suspicion of scientific fraud or misconduct should be reported, particularly in respect of the training grades. That responsibility, we agreed, should be to ensure that appropriate people investigate such allegations.

Although deans are well aware of the report—and are clear about their responsibilities—the same cannot be said for others who work in the NHS. Any new and workable solution to prevent such misconduct must be more widely known in the NHS as well as the profession. In the interval before any new initiative, postgraduate deans have indicated their willingness to implement the recommendations of the Royal College of Physicians.

T J BAYLEY
Chairman

Committee of Postgraduate Medical Deans,
Faculty of Medicine,
PO Box 47,
Liverpool L69 3BX

1 Lock S. Lessons from the Pearce affair: handling scientific fraud. *BMJ* 1995;310:1547-8. (17 June.)

Head lice resistant to pyrethroid insecticides in Britain

EDITOR,—Recent anecdotal reports and one clinical study have suggested that head lice found in parts of Israel and France have acquired resistance to the pyrethroid insecticides permethrin and phenothrin.[1-3] In Britain most failures of treatment reported to us have been attributable to causes other than resistance, including shorter than expected residual protection after treatment with permethrin.

When working in north London in January 1994 we obtained lice and hair samples from children whose families had obtained pyrethroid products from more than one country and used them regularly and recently. In the laboratory the lice lived normally in contact with the treated hairs, but laboratory bred clothing lice, which were susceptible to insecticide, died within two hours. Later batches of head lice from the same source were exposed to filter papers that had been treated with 0·1% (6·3 μg/cm²) or 0·25% (15·75 μg/cm²) permethrin. The table shows the numbers able to survive further exposure and to feed normally.

No published studies exist of the sensitivity of head lice in Britain before pyrethroid insecticides were introduced. Studies performed in Israel before permethrin was introduced there show, however, that the exposure time required to kill 50% and 95% of laboratory bred clothing lice when the World Health Organisation's standard test papers were used was 45 and 75 minutes respectively.[4] For head lice collected in the field the figures were 90 and 180 minutes, which means that double the dose was required. For our laboratory bred clothing lice the figures were 59 and 120 minutes when papers impregnated with permethrin 6·3 μg/cm² were used. By contrast, the head lice that survived overnight remained viable with regular blood feeds for up to 72 hours, indicating at least a 16-fold increase in resistance.

Head lice with at least a 20-fold increased tolerance to permethrin or phenothrin, or both, have been collected subsequently from the health authority areas covering Cambridge, Dorset, Greenwich, Northamptonshire, and the weald of Kent. This low resistance seems to have developed simultaneously and independently in geographically separate populations of British head lice within four years of the introduction of pyrethroid insecticides on to the market.

Many districts that have recommended pyrethroid insecticides are now changing to other preparations as part of their routine rotation policy. This should help eliminate problems. Nevertheless, effective treatment can be achieved if sufficient product is applied carefully in areas of resistance. We recommend two applications of at least 50 ml one week apart. Carers should check for surviving lice or newly hatched nymphs between treatments and for one week after, using a plastic detection comb.

Survival of head lice exposed to filter papers treated with permethrin

Date when lice collected	Treatment and dose	Total No of lice collected	No (%) of lice: Able to feed after 24 h	No (%) of lice: Surviving >48 h
Oct 1994	Permethrin 6·3 μg/cm²	55	17 (31)	15 (27)
Jan 1995	Untreated	31	14 (45)	14 (45)
Jan 1995	Permethrin 6·3 μg/cm²	69	35 (51)	33 (48)
Mar 1995	Untreated	27	12 (44)	12 (44)
Mar 1995	Permethrin 15·8 μg/cm²	31	14 (45)	12 (39)

IAN F BURGESS
Deputy director
SUSAN PEOCK
Postgraduate student
CHRISTINE M BROWN
Nursing sister
JUDITH KAUFMAN
Community pharmacist

Medical Entomology Centre,
Cambridge CB1 5EL

1 Siegel J. Head lice now resistant to most popular commercial preparations. *Jerusalem Post* 1994 Sept 12:1.
2 Combescot C. Épidémiologie actuelle de la pédiculose à Pediculus capitis. *Bull Acad Natl Med* 1990;174:231-7.
3 Chosidow O, Chastang C, Brue C, Bouvet E, Izri M, Monteny N, *et al.* Controlled study of malathion and *d*-phenothrin lotions for Pediculus humanus var capitis-infested schoolchildren. *Lancet* 1994;344:1724-7.
4 Mumcuoglu KY, Miller J, Galun R. Susceptibility of the human head and body louse, Pediculus humanus (Anoplura: Pediculidae) to insecticides. *Insect Science and Its Application* 1990;11:223-6.

Flaws in agist arguments

Doctors need pragmatic strategies

EDITOR,—In his article on agism Michael M Rivlin points out that old people differ greatly in their wishes and prognoses.[1] Any argument concerning agism should, however, take account of the consideration "other things being equal." Thus Rivlin is right to point out that old people often have a good medical prognosis, that treatment might produce substantial benefit, and that many old people seem more "deserving" than some of the younger people he describes in his article. The philosophical question, however, is not whether treatment of certain old people has a greater claim on expensive resources than the treatment of certain young people. The question is: other things being equal, do we allocate indivisible resources preferentially to younger people? Is age an acceptable criterion, other things being equal? To give a stylised example, what should our policy be if two people arrive in an emergency department with the same prognosis for recovery and the only distinguishing feature is that one is 30 and the other is 80? To whom should we allocate the only remaining ventilator, intensive care bed, artificial lung machine, etc?

The argument that "it is not incumbent on the critics of the policy of agism to propose an alternative" and that it is acceptable "to show the flaws in an argument without having to suggest what to do in its place" might be all very well for an academic philosopher. There is, however, no method of allocation of scarce resources that cannot be shown to have flaws. If a philosopher really wants to help decision makers then it would be more useful for him or her to compare different arguments so that the extent to which opposing policies violate various fundamental principles can be compared. This should enable us to come up with the "least bad" solution. So, what would Rivlin do with my two injured patients in the accident and emergency department: would he allocate treatment by randomisation, withhold treatment from both, allocate the scarce resources to the younger person, or simply go back to his department of philosophy and leave the doctor on the spot to decide?

RICHARD J LILFORD
Chairman

Research School of Medicine,
Institute of Epidemiology and Health Services Research,
University of Leeds,
Leeds LS2 9LN

1 Rivlin MM. Protecting elderly people: flaws in ageist arguments. *BMJ* 1995;310:1179-82. (6 May.)

Philosopher acquiesces to prevailing social mores

EDITOR,—Michael M Rivlin's arguments against rationing on grounds of age are convincing.[1] Much of his reasoning, however, is essentially agist. Firstly, his constant reference to "elderly people" and "their lives" reinforces the agist distinction between "us" and "them." The fact is that the lives of all of us are affected by the introduction of rationing on grounds of age in the health services, whatever age might be used.

His argument also conforms to the agist assumption that elderly people have had their lives. "How do we justify funds spent on a population that is dying?" he asks. The population of people over 65 (or whatever) may have a higher mortality but can be no more described as "dying" than the population under that age. "Elderly people lack the assertiveness of young people" is another wild agist generalisation.

Moreover, Rivlin falls in line with the moral panic over the demographic explosion. This will pose "enormous" ethical and economic problems only if society chooses to make them so. On the one hand, he holds out the positive example of the working 68 year old oncologist; on the other, he asks us to be concerned that the percentage of the population aged over 65 is due to increase from 18% to 30% by the year 2030.

I have recently strenuously argued that efforts to establish a less agist view of life are constantly undermined by benevolence towards elderly people, presumptions about incipient mortality, and excessive alarm over demographic trends.

BILL BYTHEWAY
Freelance consultant in gerontology

Swansea SA2 0HX

1 Rivlin MM. Protecting elderly people: flaws in ageist arguments. *BMJ* 1995;310:1179-82. (6 May.)
2 Bytheway B. *Ageism.* Buckingham: Open University Press, 1995.

Author's reply

EDITOR,—Richard J Lilford complains that I did not give an alternative form of rationing to agism. In a short article, however, it is simply not possible to deal with such a large topic. In any case, would Lilford insist that a philosopher who showed that slavery was immoral also had to offer an alternative economic policy? One of the important roles of a philosopher is to show when society is pursuing a course that is morally unjustifiable. The aim of my