into question the concentration of efforts to prevent suicide on health care services.

While supporting the need for good planning for patients' discharge, we believe that efforts should continue to identify other routes of intervention in the great majority of those dying by suicide, who have not been in contact with primary care or inpatient psychiatric services. Detailed examination of high risk groups, such as younger people and those in deprived communities,[4] together with review of the scope for structural interventions, such as limiting the availability of popular methods of suicide,[5] may offer the greatest population benefits.

CAMERON STARK
Consultant in public health medicine

Ayrshire and Arran Health Board,
Ayr KA7 4DW

DAVID HALL
Consultant psychiatrist

Crichton Royal Hospital,
Dumfries DG1 4TG

FIONA O'BRIEN
Health information scientist

Record Linkage Project,
Information Services Directorate,
Edinburgh

HELEN SMITH
Consultant in public health medicine

Argyll and Clyde Health Board,
Paisley PA1 1DU

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Clinical efficacy of treatment for head lice

Counting head lice by visual inspection flaws trials' results

EDITOR,—In their review of drug treatments for head lice Robert H Vander Stichele and colleagues identified only seven clinical trials in the past 29 years that met their evaluation criteria.[1] However, visual inspection (their main measure for clinical evaluation) is flawed.[2] Furthermore, to determine ovicidity a comparison of the hatching rate of treated and untreated eggs after incubation, to simulate the conditions on the head, is necessary.[3]

Use of a hand lens to detect hatchlings on the head is impractical because lice move rapidly away from disturbance in dry hair. Mathias *et al* found the application of isopropanol alcohol to be helpful as it causes lice to fall from the head.[4] Other workers use a fine toothed comb to detect lice. Nevertheless, none of these methods is sufficiently controlled to replace incubation in the assessment of ovicidity.

Vander Stichele *et al* barely touch on the question of resistance to insecticides. The evolution of genetically selected tolerance when an insect population is repeatedly exposed to a compound on a piecemeal basis is inevitable. Thus, although a product may work satisfactorily when it is submitted to a clinical trial, the situation changes after years of use. Cross resistance between compounds in the same chemical group is well documented, and multiple resistance may also occur.[5] Moreover, the results of trials conducted on a louse population in one country are not valid in another country or region, where the history of exposure to pesticides of the lice is different. Consideration of these factors does much to throw light on the high prevalence of head lice noted by Vander Stichele and colleagues "although treatments abound."

MANICE STALLBAUMER
Community hygiene concern resource project leader

Hospital for Tropical Diseases,
London NW1 0PE

JOANNA IBARRA
Community hygiene concern programme coordinator

London N8 9JT

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Authors differ on assessment of flaws in trials

EDITOR,—The review of pediculicides by Robert H Vander Stichele and colleagues seems initially to be a major advance in the analysis of clinical studies in this field.[1] Having recently completed a major review of the literature on human lice, however, I wish to comment on this analysis. I agree that most trials are full of faults and should probably never have been published. When I read the authors' analysis, however, I wondered whether they and I had been looking at the same publications. Although I make allowance for some qualification criteria being vague and in some cases clinically irrelevant, the authors have been inconsistent in their application so that two nearly identical protocols are scored differently. I scored the same "top" group of studies, with rather different results (table).

The authors laid much emphasis on the success of a product not being fully evident until 14 days after treatment, but three of their "best" studies (table) could have been influenced by previous treatment with pediculicides, having enrolled some patients who had been treated only one week previously. In any case, those with experience in the field know that "clinical trials are notoriously over-optimistic in this field"[2] because parents cannot refrain from meddling in the outcome.[3]

Most insecticides have no residual effect, so using that as a primary criterion of efficacy discounts most from being regarded as successful pediculicides. Residual action, however, is a two edged sword. It may give a "quick fix," to enhance activity of otherwise poorly ovicidal material and help prevent reinfection, but the residuum slowly wears away, leaving sublethal levels of insecticide, which can encourage resistance.[2] In this the authors' theoretical analysis and recommendations have already been overtaken by reality. Resistance to permethrin, which may render the insecticide and its relatives useless, is already widespread in Britain,[4] has been documented in Israel and the Czech Republic, and has been reported anecdotally from several other countries in Europe and elsewhere. Consequently the authors' comments suggesting that there is no justification for rotating insecticides to avoid resistance are anachronistic and perhaps naive, considering the history of resistance to "antibiotic" agents of all types.

IAN F BURGESS
Deputy director

Medical Entomology Centre,
Cambridge CB1 5EL

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Authors' reply

EDITOR,—Both Manişe Stallbaumer and colleagues and Ian F Burgess point out the potential or inevitable development of resistance to broadly used pediculicides, which makes extrapolation of results of studies performed in one country to another country hazardous. Indeed, since we completed our manuscript reports of resistance to permethrin have been published.[1,2]

We agree that a strategy for containing the pandemic of head lice should be based on the use of several active ingredients of proved efficacy. Hence we deplore statements in the media that,

Reassessment of seven studies found acceptable by Vander Stichele and colleagues: A is Vander Stichele and colleagues' assessment while B is my reassessment

Study		General item No*								Total	Treatment specific item No*																	Total	Difference
		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Maunder	A	F	—	F	F	—	—	—	—	3	F	F	F	—	F	F	—	—	—	F	—	F	—	—	f	f	—	—	9	
	B	f	—	F	F	F	—	F	—	5	F	F	—	F	—	F	F	—	F	F	—	F	—	—	—	f	—	—	9	2
Brandenburg *et al*†	A	—	F	—	F	F	—	—	—	3	F	—	—	—	F	F	F	—	—	—	—	—	—	f	—	—	—	—	5	
	B	—	F	f	f	F	—	—	—	4	F	f	—	F	—	F	F	F	F	F	—	—	—	f	F	f	—	—	11	7
Taplin *et al*	A	—	—	—	F	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	f	—	f	—	f	—	—	3	
	B	—	—	—	F	—	—	—	—	1	—	—	—	—	—	—	—	—	F	—	—	f	—	f	—	f	—	—	4	1
Bowerman *et al*†	A	—	F	—	—	F	—	—	—	2	F	f	—	—	F	F	—	—	—	—	—	—	—	f	f	f	—	—	7	
	B	—	F	f	f	F	—	—	—	4	F	f	—	F	—	F	F	—	F	—	—	—	—	f	F	f	—	—	9	4
Carson *et al*	A	—	F	—	F	—	—	—	—	2	—	—	—	f	F	—	f	f	—	—	—	—	—	f	f	f	—	—	7	
	B	—	F	—	—	—	—	—	—	1	—	—	—	—	—	F	—	F	F	—	—	—	F	f	F	F	—	—	7	-1
DiNapoli *et al*†	A	—	F	—	F	F	—	—	—	3	—	—	—	—	F	—	f	f	—	F	—	—	—	f	f	f	—	—	7	
	B	—	F	—	—	—	—	—	—	1	F	f	—	F	—	F	—	F	F	—	—	—	—	f	F	f	—	—	9	0
Clore *et al*	A	—	—	F	F	—	—	—	—	2	—	F	—	f	F	F	—	f	—	—	—	f	—	F	f	f	—	—	9	
	B	—	—	—	—	F	f	—	F	3	—	—	f	F	f	F	F	F	F	—	F	f	F	f	F	F	—	—	13	5

Studies by Brandenburg *et al* and Bowerman *et al* used nearly identical protocols.
F=Major flaw; f=minor flaw.

*See Vander Sichele and colleagues' paper for details.
†=The three "best" studies, with some subjects treated one week before enrolment.