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 efforts should be directed 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, together with review of the scope for structural interventions, which is limiting the availability of popular methods, suicide, may offer the greatest population gain.

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Clinical efficacy of treatment for head lice

Counting head lice by visual inspection: flaws trials' results

Editors.—In their review of drug treatments for head lice Robert H Vander Stichle 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.1 Furthermore, to determine the efficacy of a comparison of the hatching rate of treated and untreated eggs after incubation, to simulate the conditions on the head, is necessary.2

Use of a hand lens to detect hatching lice on the head is impractical because lice move rapidly away from disturbance in dry hair. Mathias et al found the application of isopropenol alcohol to be helpful as it causes lice to fall from the head.3 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 ovicidal effect.4 Vander Stichle et al5 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.6 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 Stichle and colleagues "although treatments abound."7

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Authors differ on assessment of flaws in trials

Editors.—The review of pediculicides by Robert H Vander Stichle 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" because parents cannot refrain from meddling in the outcome.8

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 reinfestation, but the residual slowly wears away, leaving sublethal levels of insecticide, which can encourage resistance.9 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.10 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.11

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8 Burgess IF, Brown CM, Peck S, Kaulman J. Head lice resistant to pyrethroid insecticides in Britain. BMJ 1995;311:752 (16 September.)

Authors' reply

Editors.—Both Manieke 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.12 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 deprecate statements in the media that...