Table *Comparison of different possible levels of mortality at UCH with the observed mortality at Salisbury*

	Lived	*Died*	*Total*
Hypothetical mortality of 47·5%			
Salisbury	5	16	21
UCH	21	19	40
$\chi^2 = 3{\cdot}536$, $P>0{\cdot}05$			
Hypothetical mortality of 95%			
Salisbury	5	16	21
UCH	2	38	40
$\chi^2 = 3{\cdot}123$, $P>0{\cdot}05$			

uses the UCH figures as an absolute standard but if the Salisbury figures are held constant (as in our Table) there is no significant difference by the χ^2 test using Yates's correction (as Pearson did) between 19 deaths (47·5% mortality) and 38 deaths (95% mortality) at UCH.

No amount of mathematical manipulation will alter the fact that there is no statistically significant difference in mortality between Salisbury and UCH on the quoted figures. We therefore cannot accept Pearson's conclusion that the small size of the Salisbury sample *alone* makes comparative merits of the methods of care impossible from the data supplied. A controlled trial, preferably one that includes morbidity as well as mortality, is the only way to see which method of care is preferable statistically.

References

1 Pearson R C A. Conservative care of the newborn baby. *Arch Dis Child* 1980; **55**: 411–2.
2 Diem K, Lentier C, eds. *Documenta Geigy scientific tables*, seventh edition. Basle: Geigy, 1970: 85–106.

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Dr Pearson comments:

The use of the UCH figures as a standard with which to compare the results of neonatal care at Salisbury was not my idea but that of Dr Hughes-Davies. I tried to suggest that this comparison is invalid if such small numbers are involved. Dr Burman and Dr Morris appear to be agreeing with this conclusion. Had the UCH team compared their results with those obtained at Salisbury and drawn conclusions from such a comparison, the approach adopted by Burman and Morris would have shown the inaccuracies inherent in such conclusions in exactly the same way.

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Allergic bronchopulmonary aspergillosis

Sir,

Brueton *et al.* reported the occurrence of 7 cases of allergic bronchopulmonary aspergillosis in patients with cystic fibrosis (CF)[1] in a short period of time, for which they could find no explanation; they also mentioned that asthmatic symptoms are common in patients with CF.[2] When we noted that *Aspergillus fumigatus* was being isolated more often at this hospital we did not know whether this reflected improved microbiology techniques or a genuine increase. Investigation of possible reasons included an examination of nebulisers, as many patients with CF receive nebulised drugs.

One machine showed a collection of fluff on the air intake grill. Tests showed that the machine discharged large numbers of *A. fumigatus* from the air supply to the nebuliser, and positive cultures for *A. fumigatus* were obtained too from fluff taken from within the casing, the inlet filter, and from both sides of the outlet filter. We feel that the design of this particular machine is unsatisfactory because of the siting of the air inlet.

Brueton *et al.* commented that the timing of symptoms correlated with seasons previously reported to have a high atmospheric count of aspergilli. The discharge of spores from the nebuliser must be presumed to act in a similar manner. Also, they questioned whether the increased incidence of atopy might reflect some aspect of treatment. We have no evidence that nebulisers initiate allergic bronchopulmonary aspergillosis but they must exacerbate the problem. Our machine was one of 2 machines used by inpatients with CF. Although we examined the second machine, and a number of others of different designs, we did not find *A. fumigatus*. However, it was noticed that the nebuliser into which the drug is placed is sometimes inadequately cleaned in machines used in the home. It is possible that aspergilli, and perhaps certain bacteria, are unwittingly being nebulised into patients. We feel that further studies are needed to determine the extent of this problem.

References

1 Brueton M J, Ormerod L P, Shah K J, Anderson C M. Allergic bronchopulmonary aspergillosis complicating cystic fibrosis in childhood. *Arch Dis Child* 1980; **55**: 348–53.
2 Warner J O, Taylor B W, Norman A P, Soothill J F. Association of cystic fibrosis with allergy. *Arch Dis Child* 1976; **51**: 507–11.

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Professor Anderson comments:

I thank Dr George and Dr Gillett for their letter on their findings concerning inhalation machines and the presence of *Aspergillus fumigatus;* we asked them to make such a

study after we found a group of patients with allergic bronchopulmonary aspergillosis. Fortunately the machines used at home by our patients who have intermittent inhalations did not emit *Aspergillus* sp. although a new model which had been acquired for use in the ward was found to do so; this has now been modified by the addition of a filter. None of the patients reported in our paper had used this model before presenting with allergic aspergillosis, in fact only 2 had ever used it. In our paper we did not mention the use of inhalation machines as a possible source of inhaled aspergillus because we had no incriminating data on these machines.

Obviously, this is something that should be borne in mind, as, too, should be the cleanliness of the nebulisers. For 25 years I have found intermittent inhalations useful, and only recently have I encountered so many instances of allergic aspergillosis complicating CF. Many workers are finding that a very high percentage of CF patients become skin-test positive to *Aspergillus* sp. and also show precipitins in their sera. More than 70% of our patients over the age of 5 show such findings, and there are similar reports from Ireland and England. Not all such patients are treated with intermittent inhalation and neither in fact are all of ours. Apparently the development of such sensitivity to *A. fumigatus* is a complication of CF and as this seems to be a recent phenomenon, although we cannot be sure, we must consider both environmental factors and secondary effects of treatment. At present we cannot blame the inhalation machines but I think that they should be tested regularly.

I should like to point out the following errors in the description of the radiographs in our paper. Page 351 Fig. 3b (*Case 4*) should read *Tomography* (*antero-posterior*) . . . and line 17 should read, Linear tomography showed . . .

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Book reviews

Current Pediatric Therapy, ninth edition. By S S Gellis and B M Kagan. (Pp. 793; illustrated + tables. £21·50 hardback.) Saunders: Philadelphia. 1980.

Gellis and Kagan have again compiled a useful book. The scope is wide, with 354 sections divided into 24 chapters written by 304 contributors. It is a great tribute to two notable non American authors to have included Sheila Sherlock on portal hypertension and chronic active hepatitis, and the Jelliffes on breast feeding.

In a brief and disarming preface the editors remind the reader that inside the back cover is a prepaid card on which he is invited to suggest additions or emendations to subsequent volumes.

Although the book is listed as 'illustrated' there is only one black and white drawing, albeit a useful one, on techniques for aspirating joints, but there are a number of tables. The text is condensed but, on the whole, it is surprisingly readable. One gets a certain feeling of breathlessness when the author attempts to capture the treatment of protein calorie malnutrition in 1½ pages, and obesity, tracheo-oesophageal fistula, and brain tumours each in 2 pages. There is a reasonable balance between organic and functional disorders. Constipation and soiling are dealt with in 4 pages, and ileostomy in 2. The section on recurrent abdominal pain is good. Surgical as well as medical conditions are considered although, for example, there is no entry under appendicitis.

Is there any advantage in a textbook of treatment? There are excellent sections on treatment in general paediatric textbooks and comparing the relevant sections in this book with Forfar and Arneil's or Nelson's *Textbooks of paediatrics*, there seems little to choose. However, *Current pediatric therapy* is up to date, comprehensive, and good value.

L J H ARTHUR

Current Paediatric Cardiology. By E A Shinebourne and R H Anderson. (Pp. 282; illustrated + tables. £12·50 hardback.) Oxford University Press: Oxford. 1980.

A quick glance through the pages of this book with its beautifully produced illustrations and excellent drawings and diagrams may suggest that it is a small, complete, modern textbook of paediatric cardiology. In fact, it can be described best as a collection of short articles or lectures on the subject. This is not to decry the quality of the lectures, which is first-rate, but to give the reader an idea of what to expect.

The book is divided into two main parts. Part I is devoted to basic considerations, from which might be selected for special mention the sections on nomenclature, history and physical examination, various aspects of investigation (including a helpful chapter on echocardiography), and the clear concise chapter on embryogenesis of the normal heart. Part II consists of specific conditions and their management. There is a third part which hardly seems necessary since it contains only 2 chapters, both of which could have been placed in the other sections. There is a useful appendix of paediatric drug doses, and at the end of each chapter there are a few appropriate references. The authors have taken the opportunity to further the claims of their new approach to nomenclature based on chamber localisation, and their clarity of explanation and the excellent diagrams have made it comprehensible and logical. They are to be congratulated on this and, indeed, on the whole format of this excellent book.

Inevitably, there are faults to be found. 'Persistent fetal (transitional) circulation' is a bad description of the neonatal syndrome described under that heading: