reasons for this. At a later stage fluid may not be obtainable and the cause of the effusion remains unknown. Bacilli are grown from only a minority of tuberculous effusions and it takes many weeks; biopsy gives a diagnosis within a few days in about three-quarters of cases. In malignant disease biopsy, though less certain than in tuberculosis, adds very considerably to the diagnostic yield of fluid cytology and histology from other sites. We envy you your facility in finding the causes of pleural effusions. We find it increasingly difficult. Those who share our problem and who have also been trying for over 15 years to get pleural biopsies done automatically, have little cause to thank you for your contribution.—We are, etc.,

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Serum α -Fetoprotein in Cystic Fibrosis

SIR,—Professor R. K. Chandra and others (29 March, p. 714), found raised serum levels of α -fetoprotein (AFP) in a heterozygote carrier of the gene for cystic fibrosis and in patients with the disease and some of the siblings. Dr. J. C. Wallwork and others and Dr. D. J. H. Brock and others (17 May, p. 392), however, state that they have been unable to confirm these findings, whereas Dr. J. A. Smith, of New York, reports findings which support those of Professor Chandra and his colleagues. The results of our estimations of serum AFP concentrations in 46 children with cystic fibrosis, 31 siblings, and 80 heterozygotes are shown in the table. Further data on normal values in infants, in whom high levels are usual, are being collected. The estimations were by a double antibody radioimmunoassay technique (α -Feto Riakit, Abbott Laboratories). The coefficient of variation of this method is 8%. Any results which were outside our normal range for adults (1–25 μ g/l) were repeated and the mean quoted. The log mean $\pm$ standard error of mean is given so that our findings may be compared with those of Professor Chandra and his colleagues.

Our results do not show any significant difference in AFP levels in patients, siblings, parents, or control children. It seems improbable, though not impossible, that the disease could have some very basic difference on opposite sides of the Atlantic. Probably the discrepancy in the findings will be explained by more detailed examination of the technique used. There is a great need for a reliable method for detecting the heterozygote carrier of cystic fibrosis. In this hospital

we now routinely screen all pregnancies for neural tube defects in the fetus by measuring maternal serum AFP. False positive findings have been reported in a number of conditions,¹ but it seems that cystic fibrosis, with a gene frequency of 1:20, need not be included in the list.—We are, etc.,

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¹ Adinolfi, A., et al., *Journal of Medical Genetics*, 1975, 12, 138.

Pulled Elbow: Evidence for a Genetic Factor

SIR,—We read with great interest Dr. Cynthia M. Illingworth's article (21 June, p. 672) on 100 cases of this disorder. Our own series is much shorter, consisting of only 35 episodes, but may perhaps be of interest as they all occurred in a single family, our own. Five (three boys and two girls) of our seven children suffered between them 35 episodes (see table), the earliest occurring at the age of 8 months and the last episode at the age of 4 years. We always attributed this age limit to the imminence of the appearance of the centre of ossification of the head of the radius (4 years in girls, 5 years in boys¹). We agree that while the clinical picture is typical and reduction simple with dramatic relief of symptoms, thus confirming the diagnosis, x-ray films are of little diagnostic help. Indeed, after the first few episodes, for which we enlisted the help of orthopaedic and radiological consultants, we dispensed with such diagnostic aids.

Occurrence of Pulled Elbow in Seven Siblings

Sib. No.	Sex	Blood Group	Rh Status	Age at First Episode (years)	No. of Episodes	Age at Last Episode (years)
1	M	O	—	—	0	—
2	M	A	—	8/12	8	3
3	M	A	—	1 2/12	15	4
4	F	A	—	1 9/12	4	2 6/12
5	F	A	—	2	3	2 6/12
6	F	O	+	—	0	—
7	M	A	+	1 2/12	5	3

Perhaps the most striking feature of the present series is the genetic data. While both sexes were affected and both Rh-negative and Rh-positive siblings were involved, all five of the affected siblings and neither of the unaffected siblings were blood group A, suggesting a possible genetic linkage, particularly as one parent is group

O Rh-positive and the other group A Rh-negative.—We are, etc.,

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¹ *Gray's Anatomy*, ed. R. Warwick and P. L. Williams, 35th British edn., p. 332. Philadelphia, Saunders, 1973.

Abortion (Amendment) Bill

SIR,—On re-reading my letter to you (19 July, p. 160) I can understand how Dr. J. B. Clarke (9 August, p. 373) has misunderstood me, but I do not believe that it will support Dr. C. B. Goodhart's conclusions (19 July, p. 160). Both writers' deductions rest on the assumption that I have confused my terms.

A "moral action" can result only from a free choice of the best available alternative and may be legal or illegal (I defined "best" in my letter of 19 July). A "legal action" is an action in accordance with a code laid down by some authority and may be moral or immoral. A "political decision" in this context is the result of an assessment of the collective conscience of the nation in the forming of laws by which actions may be judged legal or illegal. "Medical ethics," being the collective conscience of the profession, is a code of behaviour comparable to parliamentary laws, and an action in accordance with it may be moral or immoral, legal or illegal.

I entirely agree with Dr. Goodhart's statement that we need both political and moral decisions and that our choice of legislators should be made on moral grounds. However, he does not seem to have understood that I maintain (1) that it is not possible to draft a law which is morally right in all circumstances; (2) that it is not right morally to obey laws blindly, because that is to relinquish our freedom of choice; and (3) that it may be morally right on occasions to break the law, though we must expect to be punished if we do.

The legislators' job, in my view, is to lay down limits to curb the unscrupulous and protect the rest of us; they should stick to their job and allow the private citizen to make his own moral decisions. That is to say that I believe that Parliament should enact that a fetus of more than, say, 28 weeks should have the right to live; a younger fetus should not have that right, and the decision to kill it or not should be a purely moral issue, untrammelled by legal considerations. The law against fornication is an example of what I think is required; some hold that fornication is always immoral, but it is only illegal before the age of consent.—I am, etc.,

J. B. METCALFE

Madeley,
Telford, Salop

** This correspondence is now closed.—ED.,
B.M.J.

Administration after Reorganization

SIR,—We, the undersigned, have resigned from administration with the Trafford Area Health Authority, one as a member of the authority and the other as a consultant mem-

Serum α -Fetoprotein Concentrations in Patients with Cystic Fibrosis, Siblings, Parents, and Controls

	No. and Sex	Age Range (years)	Serum AFP Concentrations (μ g/l)		
			Range	Median	Log Mean $\pm$ S.E. of Mean
Patients	.. 46 M. 25 F. 21	1-17	1-44	11	11.4 $\pm$ 0.30
Controls	.. 23 M. 11 F. 12	1-13	3-51	9	9.1 $\pm$ 0.49
Siblings	.. 31 M. 14 F. 17	1-16	1-55	9	8.5 $\pm$ 0.38
Parents	.. 80 M. 35 F. 45	21-48	1-41	9	8.1 $\pm$ 0.22