

virtues of established simple treatment" (my italics). Bed rest is certainly effective,¹⁰ but when carbenoxolone has been proposed as the "drug of choice" it would be prudent to mention that the drug actually confers no benefit on patients in bed.¹¹ As regards smoking, I agree that patients should be advised to stop.¹² When this was done the reduction in ulcer crater size was 83.2% in patients who stopped smoking and 71.8% in those who did not; it was only 56.6% in those not so advised. Interestingly, the reduction was 61.3% in non-smokers.—I am, etc.,

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- 3 Baume, P. E., and Hunt, J. H., *Australasian Annals of Medicine*, 1969, 18, 113.
- 4 Doll, R., et al., *Lancet*, 1962, 2, 793.
- 5 Mitchell, A. B. S., *Postgraduate Medical Journal*, 1971, 47, 807.
- 6 Zimmon, D. S., et al., *Gastroenterology*, 1969, 56, 19.
- 7 Sachar, D. B., *American Journal of Gastroenterology*, 1973, 60, 83.
- 8 Rudick, J., *American Journal of Gastroenterology*, 1973, 60, 81.
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- 10 Doll, R., and Pygott, F., *Lancet*, 1952, 1, 171.
- 11 Middleton, W. R. J., et al., *Lancet*, 1965, 1, 1030.
- 12 Doll, R., Jones, F. A., and Pygott, F., *Lancet*, 1958, 1, 657.

Oncology Centres

SIR,—May I endorse, with regret, the conclusion reached in your leading article (5 January, p. 2) regarding the funding of the recently established oncology centres? With the encouragement of the Leeds Regional Oncology Centre a group of regional surgeons, together with radiotherapists and backed by steroid biochemists and statisticians, developed a five-year plan for the investigation of breast cancer which we carefully costed at £6,000 per annum. We applied for funds from the Department of Health and Social Security and were advised that we could not hope to receive any money despite the admitted excellence of the project. It would appear that funds for oncology will have to come either from the Medical Research Council, which must be approached through the usual channels, or through local or national cancer charities. I am writing this letter in order that other enthusiasts should not waste their time and energies trying to obtain non-existent money from the D.H.S.S. cupboard, which is obviously bare.—I am, etc.,

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Sequelae of Virus Infection in Pregnancy

SIR,—Following the first reports that maternal influenza¹ and chickenpox² were associated with increased risks of leukaemia in the child we identified records of women who had suffered any virus infection in pregnancy with a view to follow-up of records of the children. Included in the study were pregnancies in sufferers from Hodgkin's disease and multiple sclerosis and samples of women from two local authority areas who had been immunized against poliomyelitis while pregnant.

Records from general practice, local authority, hospital, and virus laboratory sources where the

Observed and Expected Deaths from Leukaemia, all Malignant Neoplasms, and All Causes among Children whose Mothers had Virus Infections in Pregnancy

Infection	No. of cases*	Leukaemia		All malignant neoplasms		All causes	
		Obs.	Exp.	Obs.	Exp.	Obs.	Exp.
Influenza	553	—	0.11	—	0.25	8	12.45
Chickenpox	335	2	0.17	2	0.41	6	4.12
Herpes zoster	78	—	0.02	—	0.05	2	1.90
Mumps	525	—	0.27	1	0.67	3	6.54
Rubella	860	—	0.33	2	0.80	15	17.14
Measles	38	—	0.01	—	0.03	2	1.27
Infectious hepatitis	173	—	0.04	1	0.09	7	4.05
Other natural infections	67	—	0.02	—	0.05	1	1.75
Hodgkin's disease	16	—	0.00	—	0.01	—	0.41
Multiple sclerosis	103	—	0.04	—	0.09	1	2.97
Poliomyelitis vaccination							
Salk type	2,213	—	0.89	1	2.02	48	61.65
Oral	373	—	0.08	—	0.20	7	8.59

The total cases listed include the cases of maternal chickenpox, rubella, and mumps previously reported.

fact of a virus infection in pregnancy was readily retrievable were exploited. Children born alive from these pregnancies were identified from birth registers and details of any deaths among them obtained via the National Health Service Central Registers for England and Wales and for Scotland. Children who had emigrated or had been adopted (the latter were not traced further) were also identified in this way. For each infection the expected numbers of deaths from leukaemia, all malignant neoplasms, and all causes were calculated. These values are the deaths expected among populations born in England and Wales at the same time and followed from birth (or from the second birthday for those included in the earlier report*) to the end of 1973.

The observed and expected numbers of deaths following each virus infection are shown in the table, where it will be seen that maternal virus infections have no influence on total mortality. Only for chickenpox in pregnancy does the incidence of neoplasms significantly exceed expectation. No neoplasms occurred following maternal influenza. The one tumour following immunization with killed poliovirus arose from neural tissue at age 13; this vaccination has been implicated³ as a cause of these tumours in younger children. We therefore support the findings of others that only these infections carry any excess risk of childhood tumours.

Further details will be published elsewhere,⁴ but one further result should be noted here. In our earlier report² a child whose mother had mumps in pregnancy was recorded to have died of Still's disease, which is very rare. The names of children identified in this study were therefore checked against a list of all 167 known sufferers from Still's disease born in the same years, and no further cases of Still's disease following maternal virus infection were found.

Many of the infections reported were identified by the Epidemic Observation Unit and by the Research Unit of the Royal College of General Practitioners. The list of sufferers from Still's disease was provided by Dr. Philip Wood, of the Arthritis and Rheumatism Council Field Unit for Epidemiological Investigations.

—We are, etc.,

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1 Fedrick, J., and Alberman, E. D., *British Medical Journal*, 1972, 2, 485.

2 Adelstein, A. M., and Donovan, J. W., *British Medical Journal*, 1972, 4, 629.

3 Heinonen, O. P., et al., *International Journal of Epidemiology*, 1973, 2, 229.

4 Office of Population Censuses and Surveys, *Studies on Medical and Population Subjects*. In press.

Treatment of Aspergillosis

SIR,—May I take issue with your leading article on treatment of Aspergillosis (20 April, p. 133)? Atkinson and Israel¹ have shown that 5-fluorocytosine is at least as effective as, and possibly more so than, other available agents for the treatment of this disease.—I am, etc.,

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1 Atkinson, G. W., and Israel, H. L., *American Journal of Medicine*, 1973, 55, 496.

Airborne Lead in Aberystwyth

SIR,—Dr. W. H. Beasley and others (3 November 1973, p. 267) suggested that a possible source of lead which might account for the high blood levels reported found in Aberystwyth blood donors might be airborne dust derived from old mine workings in the district. We have investigated this possibility in collaboration with the department of chemistry at the E. Davies Memorial Laboratories of the University of Wales in Aberystwyth.

Two high-volume air samplers similar to those currently employed in our investigation of the atmospheric lead concentrations at the Midlands motorway link in Birmingham were taken to Aberystwyth and were sited on a suitable flat roof of the university buildings. The two particulate air samplers were positioned so that one bank of 16 Millipore filters faced south-west towards the sea and the other bank faced north-east towards the land. The air flow through the filters was adjusted so that during a 25-hr period 22.5 m³ of air was sampled. Altogether fifteen 24-hr samples were collected between 30 January and 13 February 1974. These samples were returned to our laboratories and analysed by dissolving the filters in a perchloric-nitric acid mixture (1:4) followed by lead determination of the solution obtained with a Perkin-Elmer 303 atomic absorption spectrophotometer using the 2,833-Å line from a hollow lead cathode lamp source.

The mean values of lead found for the samplers facing south-west and north-east were 0.07 and 0.11 µg/m³ respectively. Compared with the background values of around 0.8 µg/m³ we have obtained in Birmingham, the Aberystwyth airborne lead concentration appears to be low. In the light of these observations it seems that airborne lead cannot be responsible for the high blood lead levels reported. In this instance an investigation into the lead content of water supplied to the town may be helpful in identifying the source of lead.—We are, etc.,

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