(-0.41) with the medical staffing ratio, but hospital utilization factors together accounted for a higher proportion of the variance in mean stay after operation. Overall only 38% of the variance was 'explained' by the factors in the equation.

SEVENTH SESSION (Chairman: R. DOLL)

A Computer-based Cervical Cytology Service. J. SAUNDERS and A. H. SNAITH (*West Sussex County Health Department*)

A computer is employed to provide an appointment service for every woman between the ages of 21 and 70 in the county of West Sussex. More than 70% of women agree to have the test, and analysis of the consenting population by social class and age suggests that they account for 70% to 75% of the pre-carcinomatous lesions and of deaths from carcinoma of the cervix. Computer costs were 15.1% of the total of £2 5s. 6d. per test. The employment of the computer as the organizing tool of a centrally-administered appointment system offers a better prospect of an epidemiologically effective service than reliance on patients to come forward on their own initiative.

Terminal Care of Cancer Patients. M. R. ALDERSON (*Department of Preventive and Social Medicine, University of Manchester*)

A pilot survey was carried out in Manchester on the problem of terminal care for cancer patients and relevant information collected from hospital sources, family doctors and relatives.

One hundred and twenty-seven patients died from malignant disease in Manchester in April 1969; 44 of the 74 who died in hospital had been admitted for nursing care, and 24 of the 49 who died in their own or their relatives' homes had been nursed for a prolonged period in difficult circumstances. It is suggested that these 68 patients presented a problem that should be dealt with by means other than nursing in an acute ward of a general hospital.

The Role of Local Infections in the Recognition of Haemopoietic Neoplasms. ALICE STEWART and G. W. KNEALE, presented by G. J. DRAPER (*Department of Social Medicine, Oxford*)

Mortality statistics for leukaemia in England and Wales have shown a steady rise over the past 50 years. In children this is particularly striking in the age-group 2-4 years. It was suggested by us in 1961 that the increase in the death rate for this group could be explained on the assumption that children in the pre-onset phase of leukaemia were more likely to die as a result of pneu-

monia following an infection than were non-leukaemic children. Hence, when pneumonia mortality is high many cases of leukaemia will not be recognized as such since they will die from pneumonia.

In order to test this hypothesis the trends in mortality rates for the years 1911-60 were analysed, separately for two age-groups, first under 2 years and secondly 2-4 years. This analysis suggests that in the latter group pre-leukaemia children have a greatly increased risk of dying from pneumonia as compared with their unaffected contemporaries; the effect is much less marked or may even be absent in children dying under 2 years of age. An explanation for the differing effects in these two age-groups was advanced in terms of the length of the latent period for leukaemia.

EIGHTH SESSION (Chairman: H. CAMPBELL)

A Comparison of Two Methods in the Treatment of Varicose Veins. JEAN M. WEDDELL (*M.R.C. Epidemiological Research Unit (South Wales) Cardiff*)

A disproportionately high percentage of hospital facilities are used for treatment of varicose veins. The hypothesis that out-patient treatment by injection-compression sclerotherapy is as effective as in-patient surgery has been examined and the costs of the two methods have been compared.

Treatment was randomized between two groups who were otherwise similar. The one-year follow-up showed no significant difference between the two methods. Injection-compression sclerotherapy costs are a quarter those of in-patient surgery; while the introduction of injection-compression sclerotherapy has led to an increase in the number of patients treated, total expenditure on treatment has decreased over the last four years.

A Randomized Controlled Trial of Ergotamine Tartrate. W. E. WATERS (*M.R.C. Epidemiological Research Unit (South Wales) Cardiff*)

A beneficial response to ergotamine tartrate has frequently been used to help in the diagnosis of migraine from other headaches. A double-blind randomized controlled trial of cross-over design, comparing oral ergotamine and a placebo, was conducted on 88 women identified by questionnaire during a community survey as having headache with some of the features of migraine. It had been hoped to use the response to ergotamine as a validation of the headache questionnaire.

A clinical assessment showed that 51% of subjects obtained benefit from ergotamine and 58% from the placebo. No evidence of a beneficial effect of ergotamine over the placebo was found although significantly more subjects experienced side-effects, especially nausea and vomiting.