periods of high pollution. In an attempt to throw some
light on this the opportunity has been taken to study a
sample of adolescents now living in London who were
born around the time of the disastrous London fog of
December 1952.

In the first phase of the study (1970-71) 800 subjects
born in 1952 were seen at an average age of 18½, then in
the second phase (1971-72) a similar sample drawn from
the same areas but born in 1953 was seen, again at age
18½. The MRC questionnaire on respiratory symptoms
was used, with additional questions on the home environ-
ment in early life, and measurements of FEV, FVC, and
PEF were made.

A preliminary analysis of the results has not revealed
any consistent differences in respiratory symptoms or
ventilatory capacity between subjects born before the
London fog and present at the time, and those born just
after it. Both groups were subjected to the high levels of
pollution that existed in London throughout the 1950s,
and the prevalence of respiratory symptoms is higher
than has been reported from 'clean' areas.

The results are also remarkably uniform with respect to
areas of residence and social class of family, but the
prevalence of respiratory symptoms is much higher in
subjects who smoke than in those who do not, even
though smoking histories are short.

FIFTH SESSION (Chairman: SIR JOHN BROTHERSTON)

Twins as Markers of the Value of Obstetric Radiography. Alice Stewart (Department of Social Medicine, University of Oxford)

A study of the twin pregnancies included in the 1958
survey of the National Births Trust has confirmed
associations between obstetric radiography and first
births, assisted deliveries, and pregnancy illnesses. Over
80% of the mothers were delivered in hospital, and the
proportion of stillbirths and neonatal deaths following
x-ray examinations (61%) was below average for the
babies weighing less than 6 lb and above average for the
heavier babies.

The babies who were born in hospital did better (with
92% of survivors and relatively few deaths from atelec-
tasis and during labour) than the other babies (with 89% of
survivors and relatively few deaths from head injuries).
But where there were labour complications the x-rayed
pregnancies did worse than the non-x-rayed ones
because the low rate of stillbirths during labour which
characterized the forceps deliveries was more than offset
by a high rate of neonatal deaths from head injuries.

A high frequency of x-ray examinations and hospital
deliveries in a nation-wide sample of twin pregnancies
was indicative of a high standard of medical care,
which has proved to be more successful in relation to
small babies and atelectasis than in relation to large
babies and head injuries.

Death from Hyperplasia of the Prostate. Vera Car-
stairs, M. A. Heasman and Bridget Lowe (Scottish
Home and Health Department, Edinburgh)

Data were examined for all patients discharged from
hospital over a period of three years with a diagnosis of
hyperplasia of the prostate and treated in either a general
surgery or a urology unit. These numbered 9,986 and
there were 376 deaths. The death rate was 5·0% for
patients treated in general surgery units and 2·3% for
those treated in urology units. The characteristics of
patients who seemed to be most at risk of dying were:
older patients; admitted as emergencies; not operated
on; with an associated diagnosis not involving the
urinary tract. The percentage of high-risk patients was
higher in surgery than in urology units but standardized
rates showed that this did not account for all the difference
observed in the overall rates. In hospitals the death rate
varied from 0% to 13·6% and for consultants from 0%
to more than 20%. Only one urologist had a death rate
over 5% while 52 of 110 general surgeons had death
rates of this order, although some of these treated very
few patients. In hospitals where there were both surgery
and urology beds, over 50% of patients were admitted as
emergencies, compared with only 14% in urology. It is
suggested that there is a case to be made for urologists
treating a higher proportion of the high-risk cases and
that thought should be given to methods of selecting
patients to this end.

Emergency Admissions to Hospital from a Deputizing Service: a Controlled Study of Length of Stay and Outcome. B. T. Williams, R. A. Dixon and J. Knowelden (Medical Care Research Unit, Department of Community Medicine, University of Sheffield)

The duration of stay and outcome of admission of 459 patients referred to hospital as emergencies by a
deputizing service in 1970 was compared with that of a
control group of 1,244 emergency admissions arranged
by other doctors during the periods when the deputizing
service was operating. Satisfactory control was achieved
for age, sex, marital status, specialty, and diagnostic
grouping.

Similar proportions (12%) died in each group though
death tended to be earlier among the deputizing service's
referrals. Of those discharged alive, similar proportions
of deputizing service referrals (27%) and referrals from
other sources (25%) had left hospital after three days.

These findings do not support the hypothesis that
patients referred for hospital admission by a deputizing
service are less ill than patients referred by other doctors.

Assessment of Workload by Patient Dependency Studies and Activity Sampling with Identification of the Contributory Factors as a Guide to Organization and Management. Helen Howarth (Department of Social and Preventive Medicine, University of Manchester)

The work load of a ward is affected by the age and sex
of the patient, the day of stay, the diagnosis, and the
transfer of the patient but primarily the policies and the
work load of the consultant have the greatest effect.

A patient dependency study of 2,234 patients was
carried out over a six-month period in an ophthalmic
hospital in conjunction with an observation survey of
staff deployment. A computer was used for the patient

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