sister's desk in a state of asphyxia. Unfortunately, despite all attempts at resuscitation, he had a cardiac arrest within ten minutes and failed to recover.

Necropsy showed marked mediastinal emphysema, with some subcutaneous emphysema at the site of the operation. There was no possible source of this emphysema except from the wound. It seems most likely that the Yates drain allowed air to be aspirated into the wound on inspiration, particularly when the patient was lying in bed, and that expiration blocked the ends of the corrugated tubes, causing a ball-valve effect.

This seems a potential risk of Yates drainage tubing which I think needs to be appreciated by all surgeons.—I am, etc.,

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Use of Broad-spectrum Antibiotics

SIR,—Dr. M. Patricia Jevons takes exception to the summarized indications for Ampiclox Neonatal (ampicillin and cloxacillin) set out in the wall chart entitled *The Beecham Range of Penicillins* (May 30, p. 540). She disagrees specifically with the indication "Failure to thrive." I would agree that this term may be somewhat outmoded and embraces a number of possible diagnoses. When the use of this phrase was first drawn to our attention a few weeks ago we reviewed the situation and decided to omit it from future literature.

I would have thought, however, that the chart made it quite clear that Ampiclox Neonatal is only indicated for the treatment of those premature infants and neonates who fail to thrive because of "confirmed or suspected infection."

I do not consider that its administration in what may be a life-threatening situation constitutes "indiscriminate use of these valuable drugs." The use of any antibiotic will of course, tend to select strains of organisms resistant to it, but this fact must be weighed against the more immediate risk of withholding therapy in any given clinical situation.—I am, etc.,

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SIR,—Dr. M. Patricia Jevons (30 May, p. 540) mentions some dangers of the use of antibiotics in neonates. May I add one more from personal experience?

When my daughter was born last year she was given a five-day course of intramuscular penicillin. I later learned that this was done routinely for all babies delivered in bed in the side ward rather than in the delivery room. We were not told of the treatment, and after two days my wife, who is mildly sensitive to penicillin, developed an irritating rash on her forearms. Fortunately the reaction was not severe and she was able to continue nursing the child, taking more care to avoid contact with the wet nappy.—I am, etc.,

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Screening for Lung Cancer High-risk Groups

SIR,—The results of the investigations of Dr. G. Z. Brett (1 November, 1969, p. 260) and Dr. F. A. Nash and others (22 June, 1968, p. 715) provide some encouragement for the belief that through earlier radiological detection a modest improvement in the prognosis of lung cancer can be achieved. The cost of identifying a potential survivor by serial radiography falls if persons with a greater hazard of developing lung cancer than average for the age-group in question are investigated.

For some years we have been studying the use of simple screening methods to identify such risk-groups in a prospective epidemiological study of 12,322 males residing in the Kolin district, Czechoslovakia, aged 40-64 years and having a normal chest *x*-ray on entry into the study. In the course of the first year of the study (1966) during mass survey of the population a photofluorogram size 70 x 70 mm. was done, and a brief interview held with each person. The questions asked by the medical auxiliary concerned smoking habits, cough during the past year, expectoration of sputum, blood spitting, and respiratory infections in the past year. Information on lung cancer cases diagnosed during the subsequent years was collected from notification cards, chest clinic and hospital records, and death certificates.

In this group 52% were cigarette-smokers, 12% ex-smokers, 2% cigar or pipe smokers, and the remaining 34% were non-smokers. Forty-one per cent. of the interviewed males had cough during the past year of at least three months' duration, and in 5% cough got progressively worse; 27% brought up sputum; 1·9% reported had had a haemoptysis in the past year, and another 1·8% had had a pneumonic episode.

Sixty-one proved lung cancer cases were diagnosed during the subsequent three and a half years—that is, an incidence of 1·41 per thousand yearly. The incidence was related to age. It was 0·37 per thousand in the group of 4582 males who were 40-49 years on entry into the study; 1·17 per thousand in 5117 men who were 50-59 years, and 3·70 per thousand yearly in 2623 men aged 60-64 years.

Cigarette-smoking was an important risk factor. In the group of 2707 smokers who had smoked 200,000 cigarettes and over there was a 4·64 per thousand annual incidence of proved lung cancer; in the group of 3627 smokers who had smoked less than 200,000 cigarettes, and in the group of 1487 cigarette ex-smokers, it was 0·87, and 0·96 per thousand, respectively. Only one of the 61 proved lung cancer cases was found in the group of 4271 non-smokers; it corresponds to the annual risk of less than 0·07 per thousand. Persons with a history of chronic cough (5002 men) were at a higher risk (2·74 per thousand yearly) than non-coughers (0·51 per thousand yearly).

An association between the following characteristics and the occurrence of lung cancer was also found: Men with a history of expectoration of sputum of at least three months' duration during the past year had a 3·30 per thousand annual risk of developing lung cancer; men reporting worsening of cough during the past year 4·39 per thousand yearly; and men reporting haemoptysis during the year preceding the mass survey 10·20 per thousand yearly. Persons without these symptoms had an annual risk of developing proved lung cancer of 0·73, 1·27, and 1·25 per thousand, respectively. No significant predictive value of the history of a pneumonic episode during the past year was found in this study.

The brief standard interview done during mass *x*-ray survey is a useful screening method for identification of lung cancer high-risk groups among middle-aged males with a normal chest *x*-ray at that time.—I am, etc.,

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Advanced Cancer of the Breast

SIR,—I congratulate Mr. John Hayward on a very lucid review of the controversial field of hormonal management in advanced breast cancer (23 May, p. 469). I was surprised therefore to read his opinion that the remission rate from bilateral adrenalectomy or hypophysectomy is "probably two to three times that of castration or hormone therapy." This has never been demonstrated in fact.

The literature is indeed fogged by different criteria of response, but the joint committee of the American Colleges of Physicians and Surgeons compared, in 1962,[1] the results of oophorectomy with those of adrenalectomy or hypophysectomy, using uniform criteria. When only premenopausal patients were compared, castration yielded tumour regression in 29·7% of 381 cases compared with 33·2% of 232 adrenalectomized cases and 31·1% of 74 hypophysectomized cases. The differences are not statistically significant.

Mr. Hayward may argue that the major ablative procedures tend to be used in the more advanced stages of the disease, and that the regression rate would be higher if they were used earlier, but he surely would not suggest that they could achieve regression in 60% to 90% of breast cancer patients (corresponding to "two to three times" the response to castration therapy). The "magic" figure of 30% crops up repeatedly as the regression rate from every form of endocrine therapy, including the better methods of additive hormone therapy. It is hard to avoid the conclusion that this figure represents the proportion with true hormone sensitivity in any large breast cancer series. One excludes, of course, those patients who after endocrine ablation or additive hormone therapy show dramatic but temporary relief of pain, without objective evidence of tumour regression.—I am, etc.,

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REFERENCE

[1] Taylor, S. G., *Surgery, Gynecology, and Obstetrics*, 1962, **115**, 443.

Undergraduate Medical Education

SIR,—The Special Representative Meeting's tacit acceptance of the Todd report's[1] concept of undergraduate teaching was