During an outbreak of infection with *Pseudomonas aeruginosa* in an intensive care unit the organism was isolated in large numbers from the inside of an Ambu bag. The strain was indistinguishable by serological and bacteriophage typing from strains isolated from the respiratory tracts of three patients. The Ambu bag had been used in chest physiotherapy on all the patients.

As resuscitation bags of this type are difficult to sterilize, autoclavable bags are now used and one bag is kept for each patient. Wire-mesh filters may retain sponge particles but not micro-organisms. The potential dangers from sponge particles and contaminating bacteria necessitate resuscitation bags which can be sterilized repeatedly. The strains of *Pseudomonas aeruginosa* were typed at the Cross-Infection Research Laboratory, Colindale.—We are, etc.,

R. Y. CARTWRIGHT.

PAMELA R. J. HARGRAVE.

Public Health Laboratory Service, Public Health Laboratory, Exeter, Devon.

**Suppression of Lactation**

Sir,—Dr. C. A. Hakim and colleagues (11 October, p. 82) confirm a clinical impression concerning the lower incidence of thromboembolic episodes with hexestrol.

I am surprised that the authors found it necessary to use as high a dose as 45 mg. For several years I have been using a single injection of hexestrol dipropionate 15 mg. in oily solution, by deep intramuscular or subcutaneous injection, for the suppression of lactation. Out of 200 or so patients, I have had to use another similar dose seven to ten days later on only three or four occasions, complete suppression of lactation having been achieved in the majority by the single dose of 15 mg. I am, etc.,

P. J. W. YOUNG.

Brecknell, Berks.

**Contraceptives and Cervical Carcinoma**

Sir,—Dr. G. M. Swyer (23 August, p. 471), referring to Table I in our report on prevalence rates of cervical carcinoma in situ for women using the diaphragm or contraceptive oral steroids (26 July, p. 195), draws conclusions that result from a misreading of the paper and require correction.

The Planned Parenthood Centers of New York City had been in operation for many years at the time this study was begun and the first cycles of the contraceptive steroids had been worked out. Column 0+ in Table I refers to the uncorrected prevalence rates that were found on the initial survey for the total of all women choosing and/or using oral steroids or diaphragms for all lengths of time. We had thought that this was clearly stated in the caption and emphasized in a footnote to Table I. The figures include the women using the method and do not give any information about the status of any women before starting either method of birth control. Nor can one obtain that information, desirable though it may be, from the prevalence rates of disease in newcomers to Planned Parenthood of New York. Virtually all women coming to the centres (except the very young) give a history of using some type of contraceptive previously. Approximately 30% of the women who chose oral steroids on their first visit indicated that they had used them in the past, and often could not recall for how long or when. Thus, even the newcomers who are part of the population in column 0+ of Table I include a very significant proportion of steroid "users" who were actually "non-users" before the time.

I think it is not possible to find a sizable population of sexually active women today in the United States (or in the United Kingdom) who have not been using some form of contraceptive. For that reason prevalence rates of disease are unavailable for a "control" group of women using no contraceptive, and meaningful differences must be sought in comparisons between matched populations where the contraceptive used is known. This is what we have done. Clearly, the matter of free choice of contraceptive is important and may be influenced by unknown factors affecting the probability of developing carcinoma. We have so stated in our discussion of the results. The next step is to follow the incidence rates of disease in matched populations that are initially normal, and will include a third group of women using another form of contraception (intrauterine device).

So far, nearly 50,000 women have been examined, and large matched populations of normal women who are using the diaphragm, oral steroids, or an intrauterine device for contraception are available. We are prepared to continue for at least five to 10 years more to determine incidence rates of the disease in these three different groups. If there are clinically meaningful differences, they should be apparent within that time.—I am, etc.,

MYRON R. MELAMED.

Memorial Hospital for Cancer and Allied Diseases, New York, U.S.A.

**Hazard of Self-inflating Resuscitation Bags**

Sir,—Dr. R. Loveday and D. G. Hurter (11 October, p. 111) describe a hazard of the use of Ambu bags. They write that the "Ambu bag in question had been in use for about one year" and "had never been autoclaved or subjected to any sterilizing technique," which suggests that they may not have experienced a further hazard.
time in a population of women. The prevalence rates determined in this study are based on the first cytological examinations done on the women attending the Planned Parenthood clinics. This, however, may not be the first cytological examination these women have ever had, and it is not at all unlikely that the study and control groups differ in their prior cytology experience before cytological examinations were introduced in the Planned Parenthood clinics. Carcinoma

<table>
<thead>
<tr>
<th>Prevalence/1000</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclidenes/1000</td>
<td>1.35</td>
<td>1.19</td>
<td>1.19</td>
<td>1-6</td>
<td>1-6</td>
</tr>
<tr>
<td>Ratio (P/I)</td>
<td>4-15</td>
<td>7-15</td>
<td>8-15</td>
<td>7-20</td>
<td>6-15</td>
</tr>
<tr>
<td>2-35</td>
<td>7-11</td>
<td>10-9</td>
<td>12-4</td>
<td>12-6</td>
<td></td>
</tr>
</tbody>
</table>

in situ prevalence rates build up rapidly in women through their twenties, continue at a high plateau through their thirties into their forties, and then decline. Carcinoma in situ incidence rates, on the other hand, peak in the 25-29 year age groups and decline thereafter. The age specific prevalence and incidence rates, for carcinoma in situ per 1000 women to age 50, and their ratios, determined for British Columbia are as in the Table above.

Prior cytology will have a considerable effect on the initial cytological findings at the Planned Parenthood clinic, depending on time interval since prior cytology and age for those having such examinations. The maximum effect would be in women 30 years and over, which includes over 75% of the diaphragm users. With a possible maximum relative difference ranging up to as much as 10-12 to 0-1 for women not having prior cytology compared to those recently found cytologically negative, it seems possible that an apparent relative risk of 2:1 might readily be generated from differences in prior experience with cytology examinations between the two birth control groups. The ongoing collection of incidence data will, of course, avoid this bias.

---

**Social Class and Serum Uric Acid Level**

Sir.—Professor R. M. Acheson's paper (11 October, p. 65) gives sufficient evidence of the multifactorial nature of the level of serum uric acid. The earlier hypotheses as regards the possible correlation of cortical activity (in terms of intelligence) with the presence of serum uric acid levels was later modified to a correlation between serum uric acid levels to achievement-oriented behaviour. It seems to me that the relationship was never tested against intelligence.

The two papers cited 9 deal with behaviour scales concerning drive and achievement. The fact that the serum uric acid is higher in the first-born child, 10 it is also accepted that the first-born shows a higher intelligence level, makes one think that there may still be a possible correlation between intelligence and serum uric acid.

Perhaps serum uric acid determination in a statistical sample of children with known IQs compared with similar determinations in educationally subnormal groups where physical handicap as a cause of subnormality can be excluded could help decide the point.

—I am, etc.,

R. SINGH

School Health Service, Stoke-on-Trent, Staffs.

**REFERENCES**


**Hypovitaminosis B12 in Psychiatric Patients**

Sir.—Dr. W. A. G. MacCallum (4 October, p. 53) would appear to place undue importance on the finding of 3-4% "subnormal" levels of serum vitamin B12 in his material. This figure does not differ substantially from that found in a similar age group in the general population by some authors. 1 Even if the figure were higher than in the population at large one might still explain "subnormal" serum levels of the vitamin in patients with normal absorption (in all seven cases of our survey tested) on the basis of psychiatric syndromes leading to self-neglect.

Subacute combined degeneration of the cord is very rare if ever seen with serum levels of over 60 pg./ml. by the Euglena method 2 or in the absence of morphological signs in the peripheral film. 3 Low levels (<60 pg./ml.) are usually reached only when the vitamin is malabsorbed, and in this age group pernicious anaemia is the major cause of such malabsorption. Only a strictly controlled trial, clinical and haematological, could show whether a biochemical "serum levels of the vitamin are in fact of such importance for the "neurons concerned with the psyche" as some believe.—We are, etc.,

F. MURPHY
P. C. SHRIVASTAVA
S. VARADI
Department of Haematology, North General Hospital, Sheffield, Yorks.

**REFERENCES**

4. Personal observation.

**Fluid Therapy during Surgery**

Sir.—The paper by Drs. A. I. Mackenzie and Dr. J. R. Donald (13 September, p. 619) entitled “Urine Output and Fluid Therapy during Anaesthesia and Surgery” is yet another example of an uncontrolled experiment. Their “controls” are stated to be fit men between 18 and 45 years old. All their experimental subjects were women. Their “controls” were ambulant and the experimental subjects were recumbent, both during and after operation. All the experimental subjects were given 20 mg. of papavemetham, which is known to influence A.D.H. secretion, but this medication was not given to the “controls.”

Their results show that the regimen advocated by Terry and Trudnowski (2 l. of