thing ?), for which you condemn prophylactic antibiotics. Our experience of 22 cases of gas gangrene suggests that this condition was unexpected and arose from a variety of orthopaedic operations—only four had had amputations.

We find it difficult to understand how you can avoid the mention of hyperbaric oxygen in the management of this dreadful condition. An earlier leading article[1] was followed shortly afterwards by a letter[2] in which it was quoted that a multi-centre investigation of 200 cases treated by hyperbaric oxygen revealed a mortality rate of 2·9%, excluding those moribund on admission and dying within 24 hours.[3] We reported 16 cases with one death and have now had 21 cases with one death.[4] This contrasts with 31 fatal cases out of 85 in Dr. Parker's investigation. Although the manner of collection of these various groups may have differed, the vast improvement of the prognosis in those treated with hyperbaric oxygen is too clear to be avoided, but the earlier treatment is commenced the better the outlook. Unfortunately there is delay, partly because the condition is not anticipated and may be confused with other forms of postoperative pyrexia, etc., and also because knowledge may not exist as to the availability of the nearest hyperbaric unit. Any surgeon would do well to know where the nearest unit is situated.

Dr. Parker found that infection in most cases arises by autocontamination (from organisms arising from the anus of the patient) and not from outside sources, particularly in the theatre, where it is known that clostridial organisms are ubiquitous. This should give confidence to those surgeons who are worried about taking a patient with established gas gangrene into the theatre for operative procedures. Dr. Parker mentions that if this were done together with a theatre failure in sterilization disaster might follow, and he quotes four cases in which gas gangrene did develop. We know of an occasion which, if not the same, is very similar, and these four patients developed the undoubted signs of gas gangrene. All commenced hyperbaric oxygen early and all had normal wounds healed by first intention ; two of these cases had metal prostheses which did not have to be removed and which subsequently functioned adequately.—We are, etc.,

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3 Van Zyl, J. J. W., in *Proceedings of the Third International Conference on Hyperbaric Medicine*, 1966, ed. I. W. Brown and B. G. Cox, p. 515. Washington, National Academy of Sciences—National Research Council.
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Hazard of Self-inflating Resuscitation Bags

SIR,—Drs. 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.

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 tracheostomy wounds in 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 Reference Laboratory, Colindale.—We are, etc.,

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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 hexoestrol. 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 hexoestrol dipropionate 15 mg. in oily solution, by deep intramuscular injection, as soon as possible after delivery 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.,

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Contraceptives and Cervical Carcinoma

SIR,—Dr. G. I. 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 cytological examinations were carried 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, although they 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 "choosers" who were actually "users" before they came.

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 results. Our 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.,

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SIR,—Dr. Myron R. Melamed and colleagues' paper (26 July, p. 195) obviously has extremely important significance in the urgent search for acceptable and safe methods for reproduction control. The authors have attempted to contribute evidence to bear on the question of cervical cancer hazard resulting from a year or more of exposure to the oral use of steroids for contraception. They have presented data acquired opportunistically from populations of women differing on many important variables related to cervical cancer risk. As they are aware, the differences found between the mechanical contraceptive barrier (diaphragm) users as controls and the oral steroid study group may reflect protective effect for the former rather than increased hazard for the latter.

Because of differences between the study and control groups on many important variables the data presented are relatively meaningless, except for the groups matched on the five vectors representing the important variables associated with cervical cancer risk. The twofold difference indicated by these data between oral contraceptive and diaphragm users hinges on the validity of the carcinoma in situ prevalence-rate determinations. Prevalence rates for carcinoma in situ can only come from the findings of cytological examinations performed for the first