CORRESPONDENCE

by a third. This protection could be due to the respiratory depression produced in mice at this level of anaesthesia. A few experiments have also been made with the separated pure cis and trans isomers, which showed the former (the minor component) to be markedly less toxic.

As a result of our observations, we are firmly of the opinion that there are no reasons to expect any increased risk to the patient due to the presence of the minute traces of "butene" present in halothane conforming to the current specification, nor is there any possibility that the concentration of this substance can increase by any significant amount during administration of the anaesthetic. Meanwhile, as a matter of scientific interest we are continuing our toxicological investigation of the "butene" agent. The results obtained will be published in detail in this Journal.

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REFERENCES

THEATRE PLANNING
Sir,—Amongst the voluminous publications about theatre planning which have appeared recently, I have looked in vain for the solution of a small problem which for some time has been intriguing me.

In continental Europe and North America, it is common to find changing room divided simply into "Male" and "Female". In true British tradition, our hospitals practise class distinction—Sisters are segregated from junior nurses, house surgeons are not permitted to see their chiefs in a state of undress, and male nurses and orderlies are rarely, apparently, expected to change at all.

Where does the woman doctor fit in? There are plenty of us—at least a quarter of the doctors using the theatres here in the last few years have been women. Do we crash the class barrier and change with Sisters or Nursing Staff? Or do we, to be more sociable, change with our surgeons?

Please, Dr. Essex-Lopresti, as a member of a specialty containing a fairly high proportion of women, indicate the solution in your ideal theatre plan.

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EPIDURAL ANALGESIA FOR PARTIAL GASTRECTOMY
Sir,—Dr. Buck's account of epidural analgesia for gastrectomy (Brit. J. Anaesth., (1963), 35, 645) was of considerable interest but is open to a number of criticisms. It is perhaps gratifying to know that such large amounts of lignocaine were given to so many patients without serious consequences; but with individual response so variable, it is surely unwise ever to inject more than 250 mg of lignocaine without having an open vein. When techniques based on relaxants are so satisfactory for upper abdominal surgery, it seems to me that to use high epidural block, with its risks of hypotension and large doses of lignocaine, is a mistake; surely it is in lower abdominal and pelvic surgery that the contracted bowel and relatively ischaemic field is a major advantage. I have very rarely found blood lost to be troublesome in a routine gastrectomy; and even if an alert response to psychotherapy is required soon after operation, I doubt if this would be longer delayed after nitrous oxide and relaxants than after the use of Dr. Buck's method, in view of the consider-

SUXXAMETHONIUM MODIFIED BY TETRAHYDROAMINACRINE
Sir,—I read with great interest the paper by Drs. Barrow and Smethurst (Brit. J. Anaesth., 35, 465).

At Bethnal Green Hospital we started using the method as advocated by the authors and were soon impressed by their claims regarding the excellence of the technique. Barrow and Smethurst use this method for Caesarean section and for routine operations in which "muscular relaxation will be required for less than 1 hour".

To date 72 patients (including 13 requiring Caesarean section) have been anaesthetized in this way. Operations have lasted up to 2½ hours and the maximum quantity of suxamethonium used was 90 mg in a strong man of 40 years undergoing partial gastrectomy. Other patients in this series underwent colectomy, hysterectomy and prostatectomy. Many of the patients were regarded as poor operative risks. For example, one woman of 81 survived an extensive operation for colectomy, with partial cystectomy and ovarietomy, and is progressing satisfactorily. Another female, having had a secondary haemorrhage following a uterine operation, subsequently underwent a successful hysterectomy. The total quantity of suxamethonium required was 40 mg. The extension of the operating time beyond that reported by other authors may be attributed to some modification of the method introduced by the author. Barrow and Smethurst intubate the trachea after injection of suxamethonium 30 mg with tetrahydroaminacrine 15 mg, after which about 16 minutes of relaxation can be expected, according to their account. This period may, in our experience, extend to 30 minutes. Except for Caesarean section, intubation is performed without the aid of muscle relaxants. This is a purely optional and personal technique.

Premedication is given 1 hour before operation and consists of atropine 0.6 mg, Pethilorfan 50 mg and quinalbarbitone 90 mg. In the anaesthetic room a mixture of atropine 0.6 mg, promethazine 30 mg and Pethilorfan 50 mg is injected. About 10–20 ml
of 2½ per cent thiopentone is then injected and
the vocal cords are sprayed with 4 per cent ligno-
caine and the trachea is intubated orally with a cuffed
tube, giving a clear start of 16 minutes or more. The
combined injection of suxamethonium and THA is
injected just before the incision. Respiration is either
controlled or assisted manually or by ventilator. Addi-
tional 10 mg doses of suxamethonium are given when
relaxation is necessary, as for example, during ex-
ploration of the abdominal cavity or closure of the
peritoneum. Otherwise, during visceral handling or
anastomosis, traumatic stimuli are controlled by the
addition of fractional doses of Pethilorfan 25–50 mg
and/or gaseous agents, nitrous oxide (5 litres) and
oxygen (6–7 litres) with cyclopropane (5–10 per cent)
or with trichloroethylene or halothane 0.5 per cent,
whichever the anaesthetist has a preference for. Care
is taken to keep the respiration of the patient either
controlled (Barnet respirator) or assisted (Magill cir-
cuit with Ruben valve). The amplitude of spontaneous
respiration in the latter case is not allowed to be dis-
turbing. If, however, the above measures do not control
the amplitude of respiration additional injection of
suxamethonium 10 mg is given. A second dose of
THA 15 mg has been necessary once only.

The maintenance of anaesthesia, recovery and post-
operative state seem so uniformly satisfactory that the
author is unable to report any adverse aspect of the
method. The author and two registrars in the hospital
have now abandoned the use of all other relaxants but
would hesitate to use the method if the pseudo-
cholinesterase level in plasma is likely to be low.

In addition to the numerous advantages of the
method which were described by Barrow and
Smethurst there are two more. These are that the
second injection of suxamethonium does not cause a
change in cardiac rhythm (this was assessed by palpa-
tion of radial artery pulsation) and that after neomyein
administration suxamethonium with THA is not likely
to potentiate the curariform action of this antibiotic.
The absence of postoperative muscle pains confirm
the findings of others.

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