The Teaching of Anaesthesia to Medical Students

Sir,—For the last four years, during the summer vacation, one of the hospitals in this group has had medical students from a northern university staying in the hospital. These students have always produced a form on which they have to write down a certain number of anaesthetics they have given under supervision. It has been a pleasure to the anaesthetic staff to teach these students to give safe anaesthesia for minor and relatively minor operations and for the common emergencies.

Surely this using of non-teaching hospitals is the answer to the practical side of undergraduate teaching. If the hospitals are recognized as postgraduate teaching hospitals for the F.F.A.R.C.S. and the D.A., presumably their standards are adequate. As distinct from the teaching hospitals, many operating lists of suitable cases are done, often more emergency cases are seen and possibly the Consultant Anaesthetists have more time. In addition, there would not be any question of "There will be no private work in teaching sessions so that some additional remuneration ought to be forthcoming to allow for this" as mentioned by Harbord (1954) in your last Journal; many consultants are full-time and private cases in the provinces are rare nowadays anyway.

R. E. Loder
(Anaesthetic Dept., Peterborough Area).

REFERENCE

Anaesthesia for Mitral Valvotomy

Sir,—Dr. Mushin has very rightly pointed out my rather loose terminology in regard to my assumption of a 50 per cent nitrous oxide-oxygen mixture reaching the patient when such a mixture is set on the flowmeters.

In all cases in my article, a total gas flow of 4 litres/min. was administered. Using the formula quoted by Foldes, Ceravolo and Carpenter (1953):

\[ S_{O_2} = M_{O_2} + \frac{T - M_{O_2}}{100} \times C_{O_2} \]

where \( S_{O_2} \) is the setting of the oxygen flowmeter, \( M_{O_2} \) the metabolic oxygen requirement per minute, \( T \) the total gas flow per minute and \( C_{O_2} \) the desired oxygen concentration; it is found that the desired oxygen setting on the flowmeter for a 165 lb. (74 kg.) patient is 2,150 ml./min.

Similarly, according to Foldes, Ceravolo and Carpenter (1953), the nitrous oxide setting would be:

\[ S_{N_2O} = T - S_{O_2} \]

which in this case would represent a nitrous oxide flow of 1,850 ml./min.

Using the standard rotameter heads at present in use in this country, even Dr. Mushin will admit that it is extremely difficult to set and maintain gas flows with such accuracy.

With a total gas flow of 4 litres (2 litres \( N_2O \), 2 litres \( O_2 \)) I have studied the behaviour of the haemoglobin oxygen saturation in these cases using the Kipp Oximeter after the method described by Zijlstra (1951). I have found that the cyanosed patients with mitral stenosis,
who gave a haemoglobin oxygen saturation of 80–84 per cent breathing air, when anaesthetized with this mixture gave an oxygen saturation of 94–97 per cent. When the chest was opened and the left lung collapsed, none of the cases gave a lower reading than 87 per cent, even during the time the surgeon’s finger was dilating the mitral valve. On re-inflation of the left lung the oxygen saturation returned to the previous figures of 94–97 per cent.

It would appear therefore that at the total gas flow of 4 litres/min., that the mixtures I am using ensures adequate oxygenation of these patients during operation.

FRANK S. PRESTON
(Western Infirmary, Glasgow).

REFERENCES

Laudolissin as Relaxant

Sir,—The clinical trial of Laudolissin as a relaxant by Dundee, Gray and Riding (1954) confirmed my own experience with this drug save in one particular which is of some importance. In referring to the antagonism of the drug by neostigmine they state that 15.6 per cent of their patients required more than 5 mg. of neostigmine and note the phenomenon of recurarization in 6 of their 524 cases. This experience is quite at variance with my own. In addition to the 100 cases already reviewed (Binning, 1953) I have used Laudolissin in a further 150 cases and continue to be impressed by the speed and certainty with which its action is antagonized by neostigmine.

REX BINNING
(Royal Sussex County Hosp.)

REFERENCES