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REPLY

Our failure to cite the manuscript published by Drs. Hunter, Jones and Utting in the *British Journal of Anaesthesia* in 1980¹ on the effects of nitrous oxide-fentanyl anesthesia on renal failure in the ventilated dog was an oversight on my part for which I apologize. However, the existence of their manuscript does not alter the results and conclusions that I have drawn in my recent publication. And, had I been aware of their manuscript, I would have utilized its reference for the purpose of further bolstering my argument that pharmacologic data obtained in anesthetized, acutely-operated animal preparations are misleading. The results are much different than those seen in conscious animals.^{2,3}

The study by these authors is confusing. Prior to actually studying the effects of fentanyl, the animals had been given several other drugs – one of which was fentanyl itself – and, in addition, had been acutely operated upon. These authors point out themselves in the first paragraph of their results section that the haemodynamics for their dogs was “within a range of normal for dogs anesthetized with pentobarbitone.” Such a situation does not represent a normal cardiovascular system.^{4,5} Because of this and the difference in the way these authors measured renal blood flow (with a PAH extraction technique), they get differing results from what we found in conscious animals in which renal blood flow was measured with a probe technique. The inaccuracies of the PAH method of measuring renal blood flow are well known.⁶ Someday when we can position indwelling flow probe devices around human arteries, perhaps many new things will be learned about the physiology and pharmacology of regional blood flow. Until then, the next best thing is a drug-free milieu in a healthy conscious animal.

Thank you very kindly for giving me the opportunity to reply.

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Induction of anaesthesia with Alfentanil

To the Editor:

The choice of optimal intravenous injection or infusion rate of an anaesthetic drug is essential for the patient, in terms of minimizing side effects and inducing sleep in a pleasant manner.

Nauta *et al.*¹ after a pilot study recommended an injection speed for Alfentanil (A) of 50 $\mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ as an ideal infusion rate during induction of anaesthesia. This infusion rate minimized the chest wall rigidity as well as the induction time. Surprisingly, in their next study² on anaesthetic induction with A, published ten months later, the same authors used a considerably lower rate of A infusion at 20 $\mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$, which they again described as optimal.

Using the data of the latter study, namely the mean body weight of 67.0 kg and the mean time to sleep induction of 93 s, a total induction dose of A of 2.1 mg/Patient (22.6 $\mu\text{g}\cdot\text{kg}^{-1}$) can be calculated. According to Nauta *et al.*¹ and to our own experience, such a dose would be too low for most patients, particularly if they had received no benzo-