methonium), but also a concentration at a higher level than in the control group.

The causes of these contradictory findings are not clear; however, differences existed in respect to age of the patients, and drugs used. Magee and Gallagher apparently studied adults anaesthetized with thiopentone whereas our observations concerned children under halothane–nitrous oxide–oxygen anaesthesia. Possibly the skeletal muscles react differently in respect to potassium release, depending not only on the type of anaesthetic (Dhanraj et al., 1975) but also on the age of the subject. This certainly occurs in regard to incidence and extent, in adults, for myalgia (Bush and Roth, 1961) and in children, for hyper-CK-emia (Tammisto, Leikkonen and Airaksinen, 1967) and hypermyoglobininaemia (Inagaki et al., 1980).

We have carried out further studies exclusively with children under halothane anaesthesia in which self-taming did not prevent the increases in serum CK activity. On the contrary, the activity was greater than in the control (Plötz and Braun, 1982). Dantrolene 2 x 1 mg kg⁻¹ was ineffective in hindering or reducing the increase in serum potassium; here also even increases of the initial concentration of potassium were observed (Plötz, 1984), a noticeable occurrence (Agoston, 1979) in earlier studies also (Collier, 1979). Dantrolene has nevertheless proved itself effective in preventing hyper-CK-emia (Plötz, Braun and Stallenberger, 1981) and hypermyoglobininaemia (Plötz, 1984).

Taking bibliographical references into consideration, Magee and Gallagher reach the conclusion (in spite of their findings) that self-taming has only limited clinical application. As shown by the cited papers, this method appears to bring no benefits whatsoever at least in regard to children. In any case, the multitude of proposed preventive measures as well as contradictory evidence in clinical studies indicate that the problem of side effects on the skeletal muscles induced by suxamethonium apparently cannot be solved by a single comprehensive method.

J. Plötz
W. Schreiber
Bamberg

REFERENCES
Collier, C. B. (1979). Dantrolene and suxamethonium. The effect of preoperative dantrolene on the action of suxa-
methonium. Anaesthesia, 34, 152.

Sir,—Thank you for this opportunity to reply to the comments made by Dr Plötz. When Baraka (1977) introduced the concept of "self-taming" he commented on the reduced incidence of suxamethonium-induced fasciculations, a phenomenon also observed by Plötz (1984). In this light it is interesting to note that the results of Dr Plötz are at variance with our own. However, serum potassium is affected by many anaesthetic agents, and there are differences in the agents used in the two studies.

When anaesthesia is induced with thiopentone followed by nitrous oxide–oxygen, there is a decrease in serum potassium concentration, possibly because of its entry into cells as a result of altered cellular metabolism (Bali, Dundee and Assaf, 1975). Where suxamethonium is administered the increase in plasma potassium concentration is less marked following thiopentone induction than following halothane (Henning and Bush, 1982), and halothane also alters the timing of the increase in serum potassium where a delay in peak effect is seen (Bali, Dundee and Assaf, 1975). We agree with Dr Plötz that there may also be differences in the reaction of children as compared with adults. We feel that these differences may explain Dr Plötz's results, and confirm our own conclusions that the technique has limited clinical applicability.

D. A. Magee
E. G. Gallagher
Dublin

REFERENCES

NALOXONE—A STRONG ANALGESIC IN COMBINATION WITH HIGH-DOSE BUPRENORPHINE?
Sir,—Buprenorphine is a synthetic opiate, with partial agonist and antagonist properties. The dose–response curve as far as analgesia is concerned is bellshaped when determined in