It should be noted that Dr Simpson’s review on periparative blood loss was commissioned originally as part of a Postgraduate Educational issue, devoted to various aspects of haematology. Some 10–11 articles were commissioned and some of these would have dealt in great detail with the other methods of decreasing blood loss, referred to above by Dr Appadu. Unfortunately, however, most of these reviews failed to materialize and it was not possible to produce a single issue. Thus Dr Simpson’s article covered only the area requested of him by the Editor of Educational Reviews.

GRAHAM SMITH
Editor

PRE-EMPTIVE EXTRADURAL ANALGESIA

Sir,—In their letter, Dr Wilder-Smith and colleagues [1] ask an important question which neither they nor the replying letter [2] address. Why do yet further studies fail “to produce the results expected from previous experimental work [3]” in relation to pre-emptive anaesthesia?

This previous experimental work with the concept of “pre-emptive analgesia” and related concepts such as “wind-up” were derived in neurophysiological laboratories in which stimuli are applied to (often neonatal and often decerebrate) animal spinal cord preparations [4], and responses such as the electrical output of neurones including ventral horn (motor) cells [4] measured. In order to obtain the so-called pre-emptive analgesia in rats “low-dose” morphine (0.5 mg kg\(^{-1}\)) is used, as opposed to larger doses (5 mg kg\(^{-1}\)) needed to suppress this effect when the drug is given (5 mg kg\(^{-1}\)) day of neurones (5 mg kg\(^{-1}\)).

This early belief, based on studies by Woolf and colleagues [5,6], is relevant to the current discussion, as they have shown that the hyperalgesia and hyperesthesia observed after peripheral nerve injury can be prevented by morphine administered shortly before injury. However, subsequent studies have failed to reproduce these results, and the mechanism of this effect is still under investigation.

In the clinical studies of extradural analgesia [7,8], and peripheral neural block [9], the pain report of conscious man is measured after standard surgical insults. The two experimental systems are assessing totally unrelated events—what would be an even greater surprise would be for there to be any correlation between the two, not that there is a lack of correlation. To answer the question as posed, the studies of analgesia in man “fail to produce the results expected from previous experimental work” because that work was not the study of pain or the response of analgesics in man. Pain is not just noceception. It is only by the study of pain and pain mechanisms in man that there will be any advances in clinical practice.
ERRATUM

British Journal of Anaesthesia 1993; 70: 17–21

Equation (7) should read: \( dt = d\theta/2\pi f \)

In the equation after equation (6) the right hand side should begin, not \((k_0^2+2\pi^2f^2)\), but \((k_0^2+2\pi f)^2\).