LETTERS TO THE EDITOR

Pulse oximetry in the accident and emergency department

Sir

I read with interest Messrs Lambert and Crinnions' (1989) article on pulse oximetry in the Accident and Emergency department. I would like to suggest an additional use for this equipment. Following the manipulation of a fracture of the forearm or wrist it is often desirable to use a complete plaster cast to minimize the chance of displacement but this may be complicated by ischaemia. The early symptoms of paresthesia are subjective and plasters may be split or removed unnecessarily. We have used the pulse oximeter to compare the wave forms of capillary flow in both the injured and uninjured index finger. In cases of early impaired vascular supply, when no abnormal physical signs were detected, but the patient complained of 'tingling' or 'pins and needles' in the fingers, a markedly flattened and low volume trace was obtained, which reverted to normal upon splitting of the plaster cast, together with an improvement in symptoms. One patient was admitted for elevation of his forearm and the pulse oximeter was attached over some hours, there was a striking trend towards a lower pulse volume over time correlating with a worsening of the patients symptoms.

Whereas there is no substitute for good clinical judgement, this use of a pulse oximeter may be a useful adjunct.

C. OAKLAND

Senior Registrar,
Basingstoke District Hospital,
Basingstoke, England

REFERENCES

Lambert M. A. & Crinnion J. (1989) The role of pulse oximetry in the accident and emergency department. *Archives of Emergency Medicine* 6, 211–15.

Haematocolpos once-in-a-lifetime cause of recurrent abdominal pain

Sir

A 14-year-old schoolgirl presented complaining of crampy lower abdominal pain occurring in spasms lasting up to 10 min over the previous 48 h. The pain seemed worse when she adopted a sitting position but eased following micturition. There was no associated nausea or vomiting. Similar episodes of discomfort had been noted over the previous 8 months occurring at irregular intervals. The patient's mother believed these pains to be like 'period pains'; however, previous consultations with physicians had resulted in administration of simple analgesics and laxatives only. On direct questioning the patient revealed she was the only girl in her class who had not yet menstruated.