In conclusion, the value of clinical ultrasound is widely underestimated both by clinicians, family practitioners, and radiologists as well. Clinical ultrasound deserves a more widespread use than in departments of radiology alone because of its beneficial effects on patient, in the ease, speed, and safety of decision making and its capability for conserving scarce financial and manpower resources.

L GREINER
Medical Clinic A – Gastroenterology,
Klinikum Wiesbaden, Wiesbaden, Germany

Reply
EDITOR,—Professor Greiner is right to extol the virtues and simplicity of sonography as a first line imaging intervention in patients with gastrointestinal and peritoneal disease and he is equally correct to point out that these values are not universally appreciated. In many countries, particularly the USA, sonography is less used, but heavily used machines. This is due to comparatively costly investigations such as endoscopy and magnetic resonance imaging or those involving ionising radiation, such as computed tomography are more liberally used in the USA, UK however, the enterologists and surgeons appreciate the benefits of simple sonography and already understand most of the issues.

There are four questions of practical importance raised by Professor Greiner’s letter. Who should do ultrasound? What are the costs? Is the Volkswagen as good as the Rolls Royce, and what training is necessary?

Many radiologists would disagree with me, but I do not find that it matters who undertakes sonography, as long as they are properly trained and continue to learn by a process of audit and CME activity.

Costs are difficult to evaluate precisely, but the routine ultrasonic implications of a larger number of less frequently used ultrasonic machines, are probably greater than those for a smaller number of central units, but heavily used machines. This is particularly so in view of the comparatively short life of a ultrasonic machine, consequent upon rapidly advancing ultrasound technology. Most British hospitals tend to run a central endoscopy unit, used by physicians, surgeons, radiologists, and general practitioners, appreciating that a fragmented service is more costly. This is no less likely to be so for ultrasound than it is for endoscopy.

I cannot agree with Professor Greiner that the cheaper Volkswagen machine is as effective as the Rolls Royce machine. There are no hard data on this but a true comparison would have to take into account the cost of misdiagnoses and misdiagnoses that occur as a consequence of the equipment alone. Certainly radiologists appreciate that the sophisticated high specification machines give greater versatility and confidence to the extension. Perhaps the theoretical analogy between the Volkswagen and the Rolls Royce is not to ask which gets from A to B better, but to ask which you would rather have around you in difficult circumstances when there is the potential for danger or disaster.

Finally, Professor Greiner does not tackle the requirements for training at all. How do we define training for non-radiologists undertaking sonography? How do they know that they are adequately trained? Just as in endoscopy, the patient may well not be interested in whether the examiner is a physician, surgeon, nurse, sonographer, radiologist or general practitioner, as long as the examiner is properly trained and provides a safe, accurate service. Again, just as with endoscopy, I believe that it is the provision of acceptable training guidelines, which is the most crucial aspect of this debate and which will dictate the quality of ultrasound services.

D F MARTIN
Department of Radiology,
Wiston Hospital, Nell Lane,
West Diddington, Manchester M20 2LR

Diverticular disease
EDITOR,—The aetiology of non-infectious colitis may be difficult to ascertain as mucosal biopsy specimens do not consistently demonstrate diagnostic features. Shepherd provided a timely and comprehensive review of the many inflammatory changes associated with diverticular disease (Gut 1996; 38: 801–2), highlighting the diversity of the inflammatory processes and providing an insight into the patient’s disease. Although he states that in our experience diverticular disease presenting as a chronic continuous colitis is unusual. We recently reviewed the case notes of all patients with a histological diagnosis of chronic intermittent colitis between 1985 and 1990 at our hospital. Of the 42 patients initially diagnosed 14 were subsequently shown to have ulcerative colitis.

Twenty one patients had specific proctocolitis on repeat biopsies and the colitis in these patients, who were predominantly young women (18 women mean age 43), ran a prolonged (average 5 years) but mild course. Only continuous colitis was observed. Just two patients with colitis had concomitant diverticular disease and, in contrast with other studies, none of them had clinically distinct diagnoses as such radiation colitis.

We conclude that although diverticular disease associated colitis is a recognised entity, in our clinical practice its occurrence is rare constituting just two cases over a five year period. We accept that some diagnoses of ulcerative colitis or Crohn’s colitis may be incorrect, none the less the association with diverticular disease appears unusual. Our finding that persistent non-specifie proctoco- litis predominated in women of reproductive age may suggest a distinct disease and warrants further investigation. However our report is limited in both sample size and duration of follow up; these deficiencies are currently being addressed.

N P MICHELL
G CHUNG-FAYE
D B TRASH
Manor Hospital,
Most Road,
Walsall WS2 9PS

Helicobacter pylori and duodenogastric reflux
EDITOR,—The paper by Ladas et al (Gut 1996; 38: 15–8) considers a very interesting theme, however it has some important methodological drawbacks, which in my opinion may affect the results. Firstly, a one hour assessment of duodenogastric reflux (DGR) seems inappropriate. A 24 hour monitoring is needed to quantify the exposure time of the mucosa to the refluxate. This is true because, although duodenogastric reflux physiologically occurs during 24 hours in normal subjects, in 6.2% of all the patients [11-1%] 11-1% of normal patients. Therefore the paper provides enough evidence for the conclusion that ‘H pylori pylori positive subjects’ were shown to be devoid of duodenogastric reflux. Secondly, the H pylori positive and H pylori negative subjects of similar and seemingly comparable (44-4% DU, 44-4% NUD) subjects hardly seem comparable (11-1% oesophagitis in the H pylori positive and 16-2% DU, 91% NUD in the H pylori negative group). These differences in duodenogastric reflex may suggest a distinct disease and warrants further investigation. However our report is limited in both sample size and duration of follow up; these deficiencies are certainly capable of affecting duodenogastric reflux differently, independently from H pylori status! Thirdly, post-treatment assessment of duodenogastric reflux (despite the adequate method) in the three subjects, who had pre- reflux and were not successfully cured of H pylori, would have been interesting. Reflux persistence after eradication failure could have represented a good counterproof and would have strengthened the datum of eradication associated reflux dis- appearance, which was obtained in only six subjects. Unfortunately this was not done.

Therefore, the paper provides enough evidence for the conclusion that ‘H pylori may survive the noxious effect of bile reflux in the