1 General Medical Council. *Seeking patients' consent: the ethical considerations*. London: General Medical Council, 1998.
2 British Society of Gastroenterology. *Guidelines for informed consent for endoscopic procedures. Guidelines in gastroenterology 11*. London: British Society of Gastroenterology, 1999.

EDITOR,—Shepherd and colleagues (*Gut* 2000;**46**:37–39) offer a timely and thoughtful contribution to the increasingly loud debate within trusts about informed consent. As well as endoscopy, their example is relevant to other services offering invasive open access procedures, especially radiology. Their booklet addresses three problems: (i) that information regarding proposed procedures should be given in circumstances in which patients could not be perceived to be under duress to give consent; (ii) that the information is given, albeit indirectly, by one who is trained to perform the procedure; and (iii) that an explanation is given regarding risks as well as benefits, as is often not the case at present.

Neale's commentary (*Gut* 2000;**46**:5–6) is, as one would expect, in many ways equally perceptive but he fails to take account of an essential aspect of open access services. As he makes clear, such a process of informing consent cannot address the problem of informing choice among available options as the information arrives through the post with an appointment for a particular procedure. However desirable it may be that such a choice should be an integral element of informing consent, the nature of an open access service dictates that the decision regarding the choice of the procedure must have been taken prior to the referral having been made. This raises two further issues: (1) how to ensure that appropriate judgement is used to decide the choice of the procedure; and (2) how to assess an acceptable level of risk for open access procedures in general and for the particular individual to whom a procedure is offered.

Neale's example of ERCP, although not generally an open access procedure, serves to focus thinking about these unanswered questions but does not diminish the contribution of Shepherd and colleagues in enhancing the quality of information given to patients. The ratio of manpower to demand means that, for the foreseeable future, much as endoscopists may wish "to speak with their patients about options for further action" prior to offering procedures, attempting to do so in every case would impose unacceptable delays in their management.

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**Reply**

EDITOR,—The booklet for consent has been designed and implemented as a practical way of addressing all of the issues that surround seeking patient's consent for open access procedures. We feel it pays due regard to recommendations of the British Society of Gastroenterology and the GMC but differs in that it is the first practical approach to dealing with high volume outpatient endoscopy services. As Dr Bruce points out in his very supportive letter, the decision that endoscopy is required has usually already been made by the patient discussing the matter with the general practitioner.

The postal questionnaire and informed consent document makes clear provision for the patient who has any doubt or concern not to sign the paper but to attend the endoscopy department with the expectation of having further explanation by an informed individual. We suggest that this approach is still better than what can only best be described as a huge range of consenting procedures that operate in various endoscopy units throughout the country. We must accept that patient consent obtained within a few minutes of the patient being endoscoped is a practice that can no longer be tolerated as consent is always open to challenge. Neale, in his commentary, we think misses the point between obtaining informed consent in a practicable, reasonable, and legal way for the procedure which is about to be performed by introducing the concept of discussing alternatives. Most endoscopists would surely agree that by the time the patient has arrived for endoscopy in the outpatient sector, particularly on the open access service, it is inappropriate to start discussing whether alternative and other modalities of investigation are appropriate. This should have happened during the patient's consultation with the general practitioner.

It was foreseen many years ago that once an open access endoscopy service was made available it would become a high volume service, which can leave both endoscopists and patients vulnerable. Protocols for endoscopy have helped in patient selection but they are not always available. We think it must be regarded as a minimum standard of care that the consent obtained for these procedures is as informed as it can possibly be made, within the practicalities surrounding the delivery of service. Furthermore, we suggest that this booklet is the first to openly address this problem and that, judging by the response the authorship has had, many other colleagues throughout the country agree with our approach.

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**Reply**

EDITOR,—Thank you for allowing me to see the correspondence regarding "informed consent". Dr Bennett states that writing to inform a patient of what is involved in "open access" gastrointestinal endoscopy (including risks and benefits) is desirable but requesting patients to "sign consent" at home is not. He cites GMC advice that "..obtaining informed consent cannot be an isolated event. It involves continuing dialogue between you and your patients... you should give... the patient time to ask questions." In contrast, Dr Bruce states that "The ratio of manpower to demand (for gastrointestinal endoscopy) means that much as endoscopists may wish to speak with their patients about ...(this) would impose unacceptable delays in management."

In writing a commentary on informed consent I did not attempt to resolve these differences. As was stated in the BSG guidelines on informed consent,[1] "In busy clinical practice it is not possible to satisfy NHS guidelines meticulously and lawyers recognise the difficulties... Each unit must develop a code of practice suitable to its mode of operation... The law takes the view that the responsibility for obtaining informed consent lies with the endoscopist who is to perform the procedure..." But as the GMC concedes, "Where this is not practicable you may delegate (this responsibility)... to a person (who) is suitably trained and qualified; has sufficient knowledge...and understands the risks..."

The difficulty with open access endoscopy lies in the shared responsibility. The GP has assessed the patient and usually remains responsible for the patient's care. I assume that consultant gastroenterologists who offer open access endoscopy instruct participating GPs carefully regarding indications, alternatives, risks, and potential benefits, thereby delegating responsibility. And as Shepherd and colleagues (*Gut* 2000;**46**:37–39) make clear, patients are not "pressed" to sign the consent form at home; they have the option not to sign until they have discussed the procedure with the endoscopist. Moreover, if the BSG guidelines are followed "... a qualified nurse should check the level of understanding and provide further explanation... and the endoscopist should deal with any last minute questions".

Meanwhile, the value of open access endoscopy remains a subject for debate.[2] It has been suggested that a one stop dyspepsia clinic is a preferable means of practice.[3] Such practice overcomes the problem of gastroenterologists "not speaking with patients about options".

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1 British Society of Gastroenterology. *Guidelines for informed consent for endoscopic procedures. Guidelines in gastroenterology 11*. London: British Society of Gastroenterology, 1999.
2 Charles RJ, Chak A, Cooper GS, Wong RC, Sivak MV jr. Use of open access in GI endoscopy at an academic medical center. *Gastrointest Endosc* 1999;**50**:480–5.
3 Rutter MD, Michie AF, Trewby PN. The one-stop dyspepsia clinic—an alternative to open-access endoscopy for patients with dyspepsia. *J R Soc Med* 1998;**91**:524–7.

## Increased prevalence of methylenetetrahydrofolate reductase C677T variant in patients with IBD

EDITOR,—We read with interest the paper by Mahmud *et al* (*Gut* 1999;**45**:389–394). The study showed an increased prevalence of methylenetetrahydrofolate reductase (MTHFR) C677T variant in patients with inflammatory bowel disease (IBD). The C677T polymorphism is a known genetic cause of mild hyperhomocysteinaemia (hyper-tHcy)[1] and may be associated with a variable degree of risk for thromboembolic disease in patients with IBD.[2]

To confirm a higher prevalence of the C677T polymorphism, we investigated 99 patients with established IBD for this polymorphism compared with 1084 unselected newborns.[3] DNA samples were genotyped for the MTHFR (C677T) mutation. Patients were categorised as homozygous for the thermolabile variant (TT), heterozygous for the wild-type variant (CT), or homozygous for the wild-type (CC).

Difference in prevalence between IBD patients and controls was compared using the $\chi^2$ test. Differences in onset of disease between patients with Crohn's disease (CD)

and those with ulcerative colitis (UC) were compared using the Mann-Whitney test.

A total of 16.2% (16/99) of IBD patients were homozygous for the C677T variant compared with 8.3% (90/1084) in the control group. This difference was statistically significant ($p<0.009$). When patients were stratified according to CD and UC, we found that homozygosity for the MTHFR C677T variant (TT) was present in 14.0% (7/50) of patients with CD and 18.4% (9/49) of those with UC. Both results were independently significantly higher than in the background population.

Onset of disease in carriers of the (TT) variant in CD and UC patients was 33.8 and 40.6, respectively, compared with 34.4 and 43.3 in non-carriers. This difference was not statistically significant. There was no correlation between disease activity indices of the IBD patients (Crohn's disease activity index for CD and clinic activity index for UC) and carriers of the (TT) variants. Also, C reactive protein levels in IBD patients was independent of MTHFR gene prevalence.

Genome wide linkage screen of a large population of IBD patients found evidence of linkage of IBD to the short arm of chromosome 1 in all families investigated. It is interesting that the MTHFR gene is located on chromosome 1 (1p36.3). Additional loci on chromosomes 3, 7, and 16 are linked to IBD.[4] The genetic basis of IBD is non-mendelian in nature[5] and very complex. Unrecognised factors may therefore be important in the pathogenesis of IBD. Further investigation of other factors is being carried out in our laboratory at present.

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1 Frosst P, Blom HJ, Milos R, *et al*. A candidate genetic risk factor for vascular disease: a common mutation in methylenetetrahydrofolate reductase. *Nat Genet* 1995;**10**:111–13.
2 Cattaneo M, Vecchi M, Zighetti ML, *et al*. High prevalence of hyperhomocysteinaemia in patients with inflammatory bowel disease: a pathogenic link with thromboembolic complications? *Thromb Haemost* 1998;**80**:542–5.
3 Gaustadnes M, Rudiger N, Moller J, *et al*. Thrombophilic predisposition in stroke and venous thromboembolism in Danish patients. *Blood Coag Fibrinolysis* 1999;**10**:251–9.
4 Cho JH, Nicolae DL, Gold LH, *et al*. Identification of a novel susceptibility loci for inflammatory bowel disease on chromosomes 1p, 3q and 4q: evidence for epistasis between 1p and IBD1. *Proc Natl Acad Sci USA* 1998;**95**:7502–7.
5 Satsangi J, Jewell DP, Bell JI. The genetics of inflammatory bowel disease. *Gut* 1997;**40**:572–4.

**Reply**

EDITOR,—Thank you for the opportunity to comment on the letter of Dr Nielsen and colleagues. We are pleased that their data have confirmed our findings, as previously recorded (*Gut* 1999;**43**:389–94). We agree with their comment that the genetic basis of inflammatory bowel disease (IBD) is very complex. One point needs to be emphasised, namely that serum homocysteine levels were increased in our patients compared with controls, even when those patients who were homozygous for C677T polymorphism were excluded. This elevated level was present even when the effect of folate deficiency was excluded. This suggests that other polymorphisms as yet undiscovered may be present in one or other of the three enzymes responsible for removal of homocysteine in internal metabolism, namely methylenetetrahydrofolate reductase, methionine synthase, and cystathionine synthase. Accordingly, it is important to emphasise that all patients with IBD should receive regular therapy with 400 μg of folic acid daily.

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# BOOK REVIEWS

**Diseases of the Small Intestine in Childhood**. 4th edn. By Walker-Smith J, Murch S. (Pp 424; illustrated; £99.50.) UK: Isis Medical Media Ltd, 1999. ISBN: 1 90186 503 7.

Pediatric gastroenterology, and our knowledge about diseases of the small intestine in children, has grown rapidly over the last few years, owing to advances in the basic sciences, such as molecular genetics and, particularly, gut immunology. The purpose of this book is to provide the consultant paediatrician, as well as the trainees, with a review of the diseases of the small intestine in children. There are two major sections in the book: the first, more general, is focused on structure and mechanisms; the second, more specific, in which attention has been given to the commoner and more important specific disease entities. This fourth edition of a book published in the past by John Walker Smith, and now coauthored by Simon Murch, reflects the long clinical experience of the first author. At the same time, it offers a thorough review of the most recent literature. The long clinical experience of the senior author, which is particularly evident in the chapter dedicated to infectious gastroenteritis, is now integrated by the strong clinical and research interest of Dr Murch in mucosal immunology. The value of the chapters dedicated to matrix (a topic to which Dr Murch has significantly contributed with his own research), and to the immune system of the small intestine in the first section of the book, and to coeliac disease and Crohn's disease in the second one, is a proof of this special competence. Also very good is the chapter on laboratory assessment, although less convincing is the part of the same chapter that discusses the chief symptoms of the child with gastrointestinal problems (diarrhoea, vomiting). The appendix on special milks is especially useful. Overall, the editorial quality of the book is high.

In conclusion, this book is a very valuable reference not only for paediatric gastroenterologists, but also for general practitioners, medical students, and dieticians.

R TRONCONE

**Operative Strategies in Inflammatory Bowel Disease**. Edited by Michelassi F, Milsom JW. (Pp 515; illustrated; £114.50.) New York: Springer-Verlag, 1999. ISBN 0 387 94966 6.

I enjoyed looking at this book. The editors' intention is that "at a moment's notice any surgeon may open it and consult an authority on a particular topic related to IBD surgery". They have assembled an international group of contributors and there are excellent sections on history, surgical pathology, pouches, and Crohn's surgery. There are some surprising omissions, however. A chapter on revision surgery for pouches that have gone wrong would have been timely, and a more thorough review of balloon dilatation and stents would have provided a look to the future. I think the sections on septic complications of pouches and Crohn's disease should have been kept separate.

I was irritated by the lack of uniformity in the illustrations and drawings of procedures, and in places the text is very dense, for example, in the section on ileostomy.

A final point: there is only one chapter on medical management just when there is an explosion of new medical therapy. Joint physician/surgeon management is seen by many as the ideal, and surgical treatment cannot be viewed in isolation. Nonetheless, this is a comprehensive and well illustrated book that will be a welcome addition to the shelves of specialists in IBD surgery.

N MORTENSEN

**Therapy of Digestive Disorders**. Edited by Wolfe MM, Cohen S, Davis GL, *et al*. (Pp 881; hardback; illustrated; £85.) Philadelphia: WB Saunders, 1999. ISBN 0 72167 340 6.

This is a substantial book edited by Dr Michael Wolfe with six of his colleagues acting as section editors. Many of the hundred or so contributors are members of the Boston home team. The others are from the key centres in North America with a smattering of contributors from Canada, Europe, Israel, and South America. This is in effect a GI textbook, but stripped largely of pathogenesis, pathophysiology, diagnosis, and differential diagnosis. Five main sections consider treatment of oesophageal, gastroduodenal, pancreatic or biliary, hepatic, and intestinal diseases.

The two column black and white presentation is relieved by good summary tables, with small clear diagrams and figures within the two column format. No flashy colour or bullet points here, but good solid information.

Clear instructions to the contributors and careful editing has produced consistent and well balanced chapters. For example, the excellent contribution from Stephen Hanner deals briefly with an approach to history taking, physical examination, diagnostic studies, and laboratory investigation in patients with inflammatory bowel disease. This is followed by an overview of individual patient