work, because it allows antimicrobial susceptibilities (metronidazole, clarithromycine to be determined, and we would not replace it for a specific test that was not fully specific as suggested by the correspondents.

1 Veenendaal RA, Litchendahl-Bernards AT, Peña AS, *et al.* Influence of transport medium and transportation time on culture of *Helicobacter pylori* from gastric biopsies. *J Clin Pathol* 1993;**46**:561–3.
2 Peña AS, Endts HPh, Offerhaus CJA, Hoogenboom-Verdegaal A, *et al.* Value of serology (ELISA and Immunoblotting) for the diagnosis of campylobacter pylori infection. *Digestion* 1989;**44**:131–41.
3 Lin SK, Lambert JR, Schembri M, *et al.* A comparison of diagnostic tests to determine Helicobacter pylori infection. *J Gastroenterol Hepatol* 1992;7:203–9.
4 Veldhuyzen van Zanten SJO, Tytgat KMAJ, de Gara CJ, *et al.* A prospective comparison of symptoms and five diagnostic tests in patients with *H pylori* positive and negative dyspepsia. *Eur J Gastroenterol Hepatol* 1991; 3:463–8.
5 Marshall BJ. Practical diagnosis of *Helicobacter pylori*. In: Marshal BJ, McCallum RW, Guerrant RL, eds. *Helicobacter pylori in peptic ulceration and gastritis*. Boston: Blackwell Scientific Publications 1991:139–59.

Measurement of medical staff overload

Dr Bignardi[1] is correct in his conclusion that it is difficult to measure medical staff workload and requirements in microbiology departments. The current guidelines of the Royal College of Pathologists for consultant staffing suggest that for central laboratories in district general hospitals serving a population of approximately 250 000 there should be at least two consultant medical microbiologists.[2] A number of districts do not provide such staffing and cases need to be developed to persuade managers to provide appropriate cover. "Population served" is a crude measure of workload, even if referral patterns do not distort the picture. It is also clear that hospital bed numbers are not directly related to laboratory activity; indeed, for some hospitals reducing bed numbers has resulted in an increase in laboratory tests from outpatients, day cases, and GPs. Numbers of specimens and the number and nature of tests can be more closely related to laboratory activity and can be made more sophisticated by such systems as WELCAN, but these are not a measure of medical input; neither are they a measure of the quality of a microbiology service. Particular problems in measuring consultant microbiologist input are the contributions to core activities of the hospital(s) and clinics served—activities such as hospital infection control, policies for infected waste, chemical disinfection—and the general provision of advice on the management of infected patients. The latter aspects depend to a large extent on the case mix profile of the units served: intensive care units, special care baby units and oncology wards make particularly heavy demands on medical microbiologists. Although these matters are generally clear in principle, the allocation of numerical factors to reflect the workload has proved to be very difficult. Some of the problems of consultant staffing levels have been discussed in a recent article in *ACP News*[3] and the Microbiology Specialty Advisory Committee of the Royal College of Pathologists is currently examining this subject. It will not be easy to produce a universally acceptable measure, but the problems must be addressed in order to try to achieve a composite workload definition that reflects the range of input required of a consultant microbiologist.

DR DAVIES
BI DUERDEN
Microbiology Specialist Advisory Committee, Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF

1 Bignardi GE. How many microbiologists are needed? *J Clin Pathol* 1993;**46**:1051–2.
2 Royal College of Pathologists. *Medical and scientific staffing of national health service pathology departments*. London: Royal College of Pathologists 1992:1–11.
3 Workload figures: whose norms are they anyway? *ACP News* 1993:11–12.

Dr Bignardi comments:

I welcome the interest by the Microbiology Specialist Advisory Committee of the Royal College of Pathologists: eliciting such interest was the main purpose of my report. In my opinion the current guidelines by the Royal College of Pathologists for consultant staffing in microbiology are so impractical that they cannot be implemented by the College itself. This is demonstrated by the fact that, during the period of my study, four job descriptions for single-handed consultants were approved by the College despite the fact that the respective populations exceeded 250 000 (the College recommends two consultants for departments serving a population of approximately 250 000). According to my analysis, the case for a second full-time consultant microbiologist was very strong in two of these four hospitals.

One would hope that if a formula based on the weighted number of beds and specimens (and perhaps on other factors) was sanctioned and policed by the College, at the least the worst cases of understaffing could be eliminated. Since writing my report I have noticed some important trends: the overall number of both consultants and junior doctors in microbiology seems to be decreasing, many pathology departments have been asked to take substantial cuts in their budget over the next years, and the NHS Management Executive has commissioned a strategic review of pathology services which might throw the door open to more pathology privatisations.

Given the current political climate, I think it most important that we try to identify and quantify the minimum medical staff requirement for a good quality service in microbiology.

Necrotising granulomas of the uterine corpus

We read with interest the report by Drs Akosa and Boret of necrotising granulomas of the uterine corpus following Nd YAG laser ablation of the endometrium,[1] and noted their reference to our original report of peritoneal granulomas following laser ablation.[2]

We subsequently reported the histological findings from four hysterectomy specimens obtained for various indications following Nd YAG laser ablation.[3] Our findings were essentially the same as those of Akosa and Boret, and we were able to demonstrate by energy dispersive *x*-ray analysis that the black foreign material within the necrotising granulomas consisted largely of aluminium oxide compatible with the known composition of the sapphire laser probe.

We also provided evidence to support the hypothesis that recurrent bleeding following laser ablation is due to inspread of functional endometrium from the tubal ostia and isthmus,[4,5] and were disappointed that Akosa and Boret made no comment on the histological appearances of the endometrium away from the obvious laser damage.

Finally, Akosa and Boret refer to the technique as endometrial resection which is in our view not correct, as the use of the Nd YAG laser is a technique for endometrial ablation.

JHF SMITH
A KENNEDY
F SHARP
Northern General Hospital, NHS Trust, Herries Road, Sheffield S5 7AU
PC REID
Luton and Dunstable Hospital
W THURRELL
University College Hospital, London

1 Akosa AB, Boret F. Necrotising granulomas of the uterine corpus. *J Clin Pathol* 1993;**46**: 953–5.
2 Thurrell W, Reid PC, Kennedy A, Smith JHF. Necrotising granulomas of the peritoneum. *Histopathology* 1991;**18**:190.
3 Reid PC, Thurrell W, Smith JHF, Kennedy A, Sharp F. Nd:YAG laser endometrial ablation: histological aspects of uterine healing. *Int J Gynecol Pathol* 1992;**11**:174–9.
4 Lomano JM. Photocoagulation of the endometrium with the Nd:YAG laser for the treatment of menorrhagia: a report of ten cases. *J Reprod Med* 1986;**31**:148–50.
5 Baggish MS, Baltoyannis P. New techniques for laser ablation of the endometrium in high-risk patients. *Am J Obstet Gynecol* 1988;**159**:287–92.

Drs Akosa and Boret comment:

We are grateful to Dr Smith *et al* for their prompt comment on our short report. This was basically intended to increase awareness among histopathologists of what has become a diagnostic quandary in the absence of adequate clinical information and in view of the increasing use of minimal invasive surgical techniques.

We noted in our report that the abnormalities in the endometrium were either complete or focal, the latter the cause of subsequent bleeding. The residual endometrium, although not stated in our report, was not confined only to the cornu as in the case referred to in the paper by Baggish and Baltoyannis. If one assumes that in every case of endometrial ablation the entire endometrium is destroyed, the hypothesis of inspread may be acceptable: in our experience this is not always the case.

Endometrial resection using laser and endometrial ablation have been and are used interchangeably. Our opening sentence which is now under discussion read, "Transcervical resection of the endometrium is a hysteroscopic method of endometrial ablation": this is self-explanatory.

Our literature search was confined to 1989 onwards, which explains why the papers by Baggish and Baltoyannis and Lomano were not cited. As for the paper by Reid *et al*, we can only assume that at the time of our search it had not been indexed. We have now read all these papers and they

should be helpful in our review of the experience with endometrial ablation in Whipps Cross Hospital.

Multinucleated stromal giant cells in ulcerative colitis

I read with interest the paper by Dr Pitt and colleagues on colonic multinucleate giant cells in ulcerative colitis.[1] Unfortunately, however, the antibody panel used by the authors failed to investigate a possible origin from factor XIIIa (FXIIIa) positive collagen-associated dendritic cells. My own observations indicate that FXIIIa dendritic cells, initially described in the dermis as so-called "dermal dendrocytes", are present in abundance throughout the whole gastrointestinal tract (figure).[2] Their function and relevance to disease remain obscure but, in part, appear to include a major role in immunocompetence and antigen presentation.[2] The contribution of FXIIIa cells to the pathogenesis of gastrointestinal pathology warrants extensive investigation.

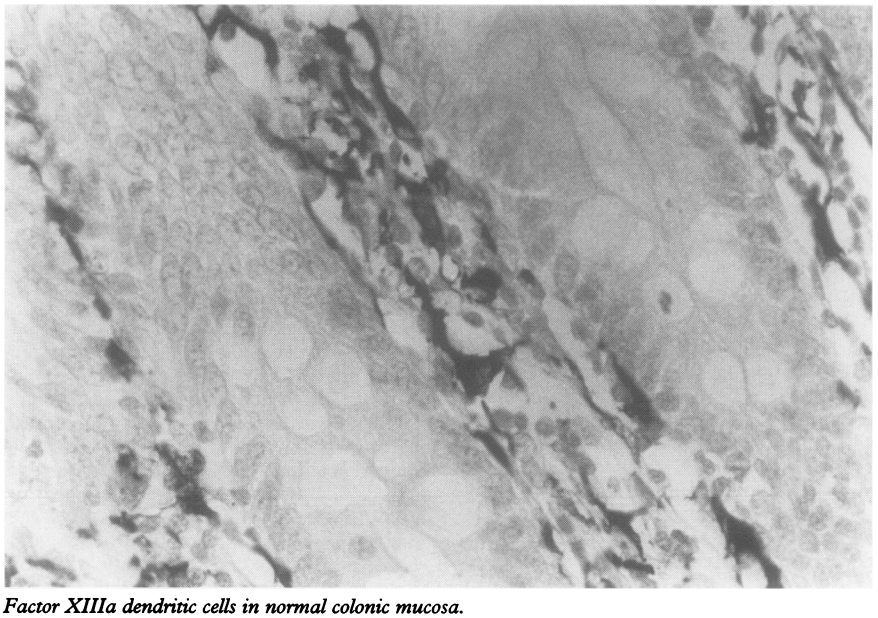
Paradoxically, however, although FXIIIa antibody studies are required in Dr Pitt's case, the results may well be negative. The authors comment that the colonic giant cells resemble those in the lower female genital tract and my own observations in vulval disease indicate that such cells are FXIIIa negative. Like the authors, I suspect that their giant cells probably originate from indigenous stromal cells. Their hypothesis is, however, not proved until FXIIIa studies have been performed.

D SLATER
Department of Histopathology, Rotherham Hospitals NHS Trust, Moorgate Road, Rotherham S60 2UD

1 Pitt MA, Knox WF, Haboubi NY. Multinucleated stromal giant cells of the colonic lamina propria in ulcerative colitis. *J Clin Pathol* 1993;**46**:874–5.
2 Headington JT, Cerio R. Dendritic cells and the dermis: 1990. *Am J Dermatopathol* 1990; **12**:217–20.

Drs Pitt, Knox and Haboubi comment:
We thank Dr Slater for drawing our attention to the possibility that the multinucleated stromal giant cells we described in the lamina propria in ulcerative colitis may originate from FXIIIa positive dendritic cells, which he has observed to be widely distributed in the gastrointestinal tract.

In response to his suggestion we performed immunostains for FXIIIa on case 2 described in our paper and on a recent case of radiation colitis which contained similar giant cells. In both cases the multinucleated stromal giant cells were negative for FXIIIa, suggesting that these cells are not derived from dendritic cells but from other indigenous stromal cells, probably fibroblasts.



Factor XIIIa dendritic cells in normal colonic mucosa.

Processing of uterine specimens

The recent Association of Clinical Pathologists broadsheet, which deals with the processing of uterine specimens, advocates a more thorough sampling of the uterine corpus than most current cut up protocols.[1] In most cases the latter recommended that a single histological block, including both endometrium and myometrium, should be taken from the anterior and posterior uterine wall.[2,3] Silverberg[4] recommends that an additional block should be taken from the posterior uterine serosa; although this specific recommendation is not included in many recent protocols designed for gynaecological specimens,[1–3] I routinely take a block from this area as it is said to be a site of election for endometriosis. The block taken is confined to the superficial myometrium and serosa, around the posterior peritoneal reflection. It is less than 10 mm thick; it can thus be readily fitted into the cassette containing the block of cervix taken from the posterior lip.

I have found this an effective screening test for serosal endometriosis. In auditing 50 consecutive specimens of uterus and cervix which had been removed for a variety of benign conditions, foci of serosal endometriosis were identified in seven cases: in three cases there was associated adenomyosis; in two endometriosis was identified in the ovary; in one there was no evidence of endometriosis in either the ovaries or fallopian tubes; and in the final case the adnexae had been conserved.

The presence of either unexpected adenomyosis or adnexal endometriosis would normally prompt a more extensive search for endometriotic foci elsewhere in the specimen. In two of the cases above, however, the presence of endometriosis would have remained unsuspected had this screening procedure not been employed. Both patients were perimenopausal women who presented with menorrhagia. There was no macroscopic evidence of endometriosis or adenomyosis in either specimen.

Endometriosis is an important but readily treated source of morbidity in women, and may account for continued abdominal symptoms following hysterectomy. The technique described above offers the advantage of routinely examining a section from the posterior uterine peritoneum without the costs incurred in processing a separate additional histological block.

MK HEATLEY
Department of Histopathology, The Jessop Hospital for Women, Leagreave Road, Sheffield S3 7RL.

1 Scurry J, Patel K, Wells M. Gross examination of uterine specimens. *J Clin Pathol* 1993;**46**: 388–94.
2 Robboy SJ, Kraus FT, Kurman RJ. Gross description, processing and reporting of gynaecologic and obstetric specimens. In: Kurman RJ, ed. *Blausteins pathology of the female genital tract*. 3rd edn. Berlin: Springer Verlag, 1987:925–40.
3 Rosai J. Guidelines for handling of most common and important surgical specimens. In: Rosai J, ed. *Ackerman's surgical pathology*. 7th edn. St Louis: CV Mosby, 1989:1946.
4 Silverberg SG, ed. The uterine corpus. In: *Principles and practice of surgical pathology*. 2nd edn. Edinburgh: Churchill Livingstone, 1990:1729–73.

Book reviews

If you wish to order, or require further information regarding the titles reviewed here, please write or telephone the BMJ Bookshop, PO Box 295, London WC1H 9TE. Tel: 071 383 6244. Fax: 071 383 6662. Books are supplied post free in the UK and for British Forces Posted Overseas addresses. Overseas customers should add 15% for postage and packing. Payment can be made by cheque in sterling drawn on a UK bank, or by credit card (MasterCard, VISA, or American Express) stating card number, expiry date, and your full name.
(The price and availability are occasionally subject to revision by the Publishers.)

The Cardiovascular System. Part A: General Considerations and Congenital Malformations. 3rd edn. Vol. 1. Ed WB Robertson. (Pp 388; 310 Illustrations; £85.) Churchill Livingstone. 1993. ISBN 0-443-03096-0.

This edition of Symmers' systemic pathology is being published as a separate volume for each system. In the case of the cardiovascular system there are two volumes, of which this is the first. Reviewing it is rather like trying to assess the fit of a suit with the trousers missing.