Letters

Clinical experience of trainees in chemical pathology: a survey of junior medical staff in the United Kingdom

Many consultants in chemical pathology run a variety of clinical services. We sent a questionnaire to all higher specialist trainees in chemical pathology to identify their clinical and research experience and current training opportunities. Responses were received from 49 (71%) of the 69 trainees surveyed.

Before training in chemical pathology, 35 (71%) had spent an average of 2.5 years (range 0.5 to 6) in general medicine or paediatrics, with 15 (31%) holding the MRCP having spent 3.4 years (1 to 6). Twenty one trainees (43%) obtained financial support from external funding bodies for a period of research averaging 3.1 years (1 to 6). Ten were supported by the MRC, SRC, or Wellcome Trust, and 11 by other (including local) funding bodies. Eleven trainees had a PhD, seven had an MD, and 12 an MSc. During their training a further six expected to complete a PhD, 11 an MD, and one an MSc. These findings reflect training experiences before the implementation of the Calman report.¹

Multidisciplinary nutrition teams (table 1) were present in 44 hospitals (90%) in which they were chemical pathology trainees, but only 25 trainees (51%) had experience of inpatient total parenteral nutrition (TPN) and nine (18%) of outpatient TPN. The importance of clinical nutrition is increasingly recognised, and the diploma in clinical nutrition, under discussion within the Royal College of Pathologists,² should focus future training requirements for chemical pathologists.

All trainees had experience in at least two clinical areas (table 2) with consultant chemical pathologists responsible for a significant proportion of these clinics. Only 15 trainees (31%) managed inpatients during chemical pathology training, involving nutri-

tion, metabolic bone disease, adult inborn errors of metabolism, and toxicology. Forty two trainees (86%) wished to obtain accreditation for their clinical skills, and 35 (71%) were prepared to spend a further year in full time clinical work.

Chemical pathology is an evolving specialty with a changing role for the medically qualified consultant. Method development is increasingly performed outside the NHS by university departments or commercial companies, but chemical pathologists still require basic research skills to evaluate and implement new technologies. However, clinical skills—particularly in the management of metabolic disorders—are increasingly important. There is a growing realisation that clinical service provision is inadequate for metabolic bone disorders,³ and for children with inherited metabolic disorders surviving to adulthood.

Trainees were not asked if the MRCP should become a requirement for entry to chemical pathology but this needs careful consideration and guidance should be given to aspiring chemical pathologists. The Royal College of Pathologists is currently discussing with the Royal College of Physicians⁴ the possibility of a training programme in metabolic medicine. This survey confirms the extent of chemical pathology trainees' clinical experience and their desire to receive appropriate accreditation of their clinical training.

P J GALLOWAY

Department of Clinical Biochemistry, Glasgow Royal Infirmary, Glasgow G4 0SF

G BAYLY

Department of Clinical Biochemistry, Birmingham Heartlands Hospital, Birmingham B9 5SS

M BADMINTON

Department of Chemical Pathology, University of Wales College of Medicine, Cardiff CF4 4XN

- 1 Department of Health. *Hospital doctors: training for the future*. The report of the working group on specialist medical training. London: Department of Health, 1993.
- 2 The Royal College of Pathologists. *Annual report 1996-1997*. London: RCPATH, 1997:25.
- 3 Center J, Eisman J. The epidemiology and pathogenesis of osteoporosis. *Baillieres Clin Endocrinol Metab* 1997;11:23-62.
- 4 Shenkin A. *The Bulletin of the Royal College of Pathologists* 1998;102:15.

Table 1 Nutritional services in the 44 hospitals with a trainee in post during the survey, indicating clinical specialty of the team leader, and person responsible for daily prescribing total parenteral nutrition

	Nutrition team leader (%)	Responsible for daily prescribing (%)
Gastroenterologist	21	4
Chemical pathologist	19	15
Pharmacist	19	31
Other clinician	27	21
Dietician	—	13
Not stated	13	15

Table 2 Clinics in which chemical pathology trainees were involved, and the percentage of these run by a chemical pathologist

	Clinical experience available to trainees (%)	% Run by consultant chemical pathologist
Lipid/coronary artery disease	96	61
Diabetes	81	—
Endocrine	63	—
Paediatric IEM	31	—
Adult IEM	25	32
Bone	33	30
Hypertension	29	—
Renal stone	17	47
Obesity/nutrition	8	45
Others: epilepsy, renal, liver, genetics, menopause	19	—

Decentralised anticoagulant care

Baglin's recent editorial¹ highlights the remarkable turn around in attitudes towards community based anticoagulation clinics from haematologists. General practitioners were originally urged to participate in oral anticoagulation management because of the increasing numbers of patients receiving warfarin treatment, which led to overloaded hospital clinics. Early feedback from general practice, however, suggested that because of lack of clinical skills and a perceived lack of interest, community management would not be feasible.² Despite these negative perceptions, the evidence was that general practice produced care at least as good as that of hospital outpatient clinics.³

More recently, technological advances have allowed INR estimation to be undertaken within practice based clinics, and computerised decision support has overcome the problem of perceived difficulties in interpretation of results, with our data showing that general practice based clinics produce better results, in terms of therapeutic control, than the traditional hospital based service.⁴ It is surprising, therefore, that one of the reasons Baglin gives for hospital clinics retaining control is that "this system is considered preferable by patients." Is there evidence to support this statement? The Birmingham study showed that patients disliked having to wait for dosing advice and were happy with nurse led general practice clinics.⁴ We would agree "that the quality of anticoagulant care has improved over recent years," but would suggest that the hospital sector, to date, has been largely reactive in supporting primary care clinicians to maintain clinical standards.

It is clear that oral anticoagulation monitoring is a growing issue, particularly with the creation of primary care commissioning groups. Rather than considering whether recentralisation of this important service should be countenanced, should not primary and secondary care be negotiating an appropriate appointment of tasks? We believe that hospital laboratories should be involved in primary care based clinics, for example in terms of quality assurance training, or advice on selection of technology. A proactive role by hospital clinicians is likely to produce the most positive response within general practice.

D A FITZMAURICE

E T MURRAY

F D R HOBBS

Department of General Practice, The University of Birmingham, The Medical School, Edgbaston, Birmingham B15 2TT, UK

- 1 Baglin T. Decentralised anticoagulant care. *J Clin Pathol* 1998;51:89-91.
- 2 Taylor F, Ramsey M, Voke J, et al. GPs not prepared for monitoring anticoagulation. *BMJ* 1993;307:1493.
- 3 Pell JP, McIver B, Stuart P, et al. Comparison of anti-coagulant control among patients attending general practice and a hospital anticoagulant clinic. *Br J Gen Pract* 1993;43:152-4.
- 4 Fitzmaurice DA, Hobbs FDR, Murray ET, et al. Evaluation of computerised decision support for oral anticoagulation management in primary care. *Br J Gen Pract* 1996;46: 533-5.

Author's response:

Dr Fitzmaurice and colleagues comment that it is surprising that I stated one of the reasons for hospital clinics retaining control is that "this system is considered preferable by patients." I actually stated that patients

preferred decentralised testing in primary care through off-site patient sampling. We are therefore in agreement that patients prefer to attend their local community practice for the purpose of anticoagulant control rather than a hospital based clinic. It is the delivery of service that is different. In the case of my own practice this is through off-site sampling, whereby a blood sample is sent to the central laboratory and the central laboratory takes responsibility for dosing, scheduling of the next test, and overseeing the service. This does retain central expert control. Dr Fitzmaurice and colleagues prefer to provide the service by near-patient testing with the development of expertise in general practice. Both approaches are workable, enable anticoagulant care to be provided through the community, and offer opportunities for improvements in quality.

My evidence to support the statement that patients prefer to attend their general practice surgery is given in the reference in the editorial.¹ In a questionnaire survey of patients who had been exposed to both the hospital based clinic service and the decentralised service, 99% of patients preferred the latter.

As so many of the population are now receiving anticoagulant care, and there is an ever increasing demand on health care resources, it is essential that providers of anticoagulant services develop delivery of care in a flexible and pragmatic way in order to continue to provide ever improving care to an ever increasing number of patients.

TREVOR BAGLIN
Addenbrooke's Hospital, Cambridge

1 Baglin T, Lefort W, Luddington R, *et al*. Decentralised anticoagulant care: near-patient sampling, dosing or testing? [Abstract] *Br J Haematol* 1996;95(suppl 1):A115.

Fine needle aspiration and the diagnosis of non-Hodgkin's lymphoma

I agree wholeheartedly with many of the sentiments expressed by Jeffers *et al* in their recent publication on the value of fine needle aspiration (FNA) of nodes and the ancillary investigations which can be undertaken on such material in the diagnosis of lymphoma.¹ However, I would like to express a word of caution. Lymphoblastic lymphomas were conspicuously absent from their series. If, perchance, the cytological preparations from an aspirate are not convincing it may be misleading to rely too heavily on the immunophenotype in making a diagnosis of precursor T or B lymphoblastic lymphoma. That situation becomes analogous to making a diagnosis of acute leukaemia based on immunophenotype without cytology; well known pitfalls await those who regularly tread that path. There is often little about the immunophenotype, even using the rather expanded panel of antibodies necessary when investigating lymphoblasts, which could be considered pathognomonic, and neither form

of lymphoblastic lymphoma expresses surface immunoglobulin to indicate clonality. Such cases will more usually arise in children and young adults but can also occur in older patients. I would not be comfortable about initiating treatment, which in many cases might be identical to treatment for acute lymphoblastic leukaemia (especially in the case of precursor T lymphoblastic lymphoma), without histological as well as supportive immunophenotypic (or even cytogenetic) data if the cytological preparations were not completely convincing. I hasten to add that Jeffers *et al* have by no means advocated universal replacement of excision biopsy of nodes with FNA nor even that this approach could obviate the need for formal histological examination in any newly presenting cases of lymphoblastic lymphoma; I merely note the absence of data on lymphoblastic lymphoma.

M M REID
Haematology Department, Royal Victoria Infirmary,
Newcastle upon Tyne NE1 4LP

1 Jeffers MD, Milton J, Herriot R, *et al*. Fine needle aspiration cytology in the investigation of non-Hodgkin's lymphoma. *J Clin Pathol* 1998;51:189-96.

Author's response:

Dr Reid is correct to point out the absence of data on lymphoblastic lymphoma in our series; this was simply owing to the absence of any such cases during the study period.

I note the caution which Reid raises regarding the excessive dependence upon immunophenotyping which may lead to pitfalls in treatment, but I would reiterate that our aim in this study was to investigate the role of immunophenotyping as an ancillary method in the initial investigation of lymphadenopathy. If, as Reid suggests, "the cytologic preparations from an aspirate are not convincing" it would, in our view, be entirely inappropriate to start any form of management on the basis of the immunophenotype alone, apart from recommendations that open biopsy be carried out. In the article we stressed the importance of interpretation of ancillary techniques in conjunction with cytomorphology and clinical information (a "triple test" as applied to lymph node fine needle aspiration!) and I would emphasise that our philosophy in using immunophenotyping in this way is to facilitate patient investigation in the setting of an initial presentation and to facilitate patient management in the setting of the recurrence or suspected recurrence of a known lymphoproliferative disorder.

I am gratified by Reid's agreement with many of our sentiments in terms of the use of cytology in the diagnosis of lymphoma.

MICHAEL JEFFERS
Histopathology Department, The Adelaide and Meath
Hospital, Dublin, Republic of Ireland

BOOK REVIEW

An Illustrated Guide to Bone Marrow Diagnosis. K Gatter and D Brown. (£65.00.) Blackwell Science, 1997. ISBN 0 632 04234 6.

In their preface, the authors state that they have tried to write a book for the busy pathologist who wishes to find on one page a description and illustration of most common bone marrow diseases seen in marrow trephines. Have they succeeded? On balance I think that they have. There are a lot of plus points. The book is beautifully produced and a pleasure to handle. Photomicrographs are generally of a high quality and are well organised on the page. Most bone marrow disorders are well dealt with and I particularly liked the approach to the diagnosis and classification of lymphomas which is a headache for many pathologists and haematologists. There is also some useful clinical information for those not well versed in haematological disorders.

The title is a little unhelpful: this is a book on bone marrow trephine histology—there is virtually no coverage of bone marrow aspirates. A few diseases get brusque treatment. Aplastic anaemia may be a rare disorder but the trephine histology is crucial in diagnosis and it seems a shame to relegate it to a few paragraphs at the end of a chapter on anaemia. Perhaps the least successful aspect of the book is the referencing. Although some chapters are well referenced, others attract only the occasional obscure reference or even none at all.

This is a user friendly book which is well written and comprehensively illustrated. It should provide a useful reference for histopathologists and haematologists who have to extract diagnoses from bone marrow trephine specimens.

MARTIN HOWARD

NOTICE

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