

In the family: Glenn (on left) and Andrew Francis, two brothers who have specialised in general pathology.

The other GPs

Photo: Andrew Porfyri

PATHOLOGISTS OVERALL ARE IN SHORT SUPPLY, BUT GENERAL PATHOLOGISTS ARE BECOMING A PARTICULARLY RARE BREED, WRITES **GEORGE BIRO**.

PHOTOGRAPHERS: ANDREW PORFYRI AND ALASTAIR BETTS

Many people in the health-care industry are worried about a serious shortage of pathologists, especially of general pathologists. How extraordinary then to find two brothers, Glenn and Andrew Francis, both medicos and both general pathologists working in Queensland.

Keeping things in the family, their mother was a nurse in a pathology service for 30 years.

Glenn graduated in medicine from the University of Queensland in 1984. He became a registrar (trainee) in general pathology at the Royal Brisbane Hospital and has just become a deputy director of the Queensland Health Pathology Service (a statewide public service).

He sees pathology as a rewarding option for those with curiosity and a scientific leaning and would be delighted if one of his sons were to follow in his footsteps.

"To enable them to treat their patients, clinicians rely on appropriate testing and accurate results," he says. "That is the general pathologist's role." He enjoys advising clinicians, who at times are not sure what tests to order, or how to interpret results.

In an age of increasing specialisation, Glenn doesn't want to see his breed become extinct. "I do feel it's important to be able to step back and look at the whole picture," he says. "This is something general physicians also do. I'd hate to see

Australia get to the degree of specialisation of the United States."

Glenn's brother, Andrew, graduated in medicine in 1987. After general hospital posts, he turned to a career in general pathology. Andrew is now director of pathology for the Prince Charles Group of Laboratories, statewide director of point-of-care testing for the Queensland Health Pathology Service and one of two deputy directors of the service, the other being Glenn.

General pathology is a five-year post-graduate specialty training programme offered by the Royal College of Pathologists of Australasia. It requires frequent exams in the main specialties. For each specialty, general pathology candidates have to reach almost the same

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standards as those who have chosen a single specialty. The present specialties are anatomical pathology, clinical chemistry, haematology and microbiology.

Andrew feels that generally trained pathologists are well suited to manage multidisciplinary services. He still gets a buzz from the breadth and variety of his work, and his interaction with students, patients and colleagues. But he is concerned about the drastic shortage of pathologists, especially of general pathologists, in Australia.

Most pathologists are 30 to 35 years old when they complete their training. At this stage, many general pathologists have had to make major moves to further their careers. Families find this disruptive and expensive. By contrast, pathologists who have qualified in a specialty find it easy to get a job in the capital cities where they have trained.

WHAT GENERAL PATHOLOGY CAN OFFER

A patient turns up at hospital complaining of a painful leg and swollen, red calf. Routine blood tests show anaemia, leukopenia (a shortage of white blood cells), hyperglycaemia, a high urea/creatinine ratio, hypoalbuminaemia (an abnormally low blood albumin level), and mildly abnormal liver enzymes. The next day he has marked elevation in creatine kinase levels and an operative swab of his leg grows the bacteria *Pseudomonas aeruginosa*.

A general pathologist diagnoses diabetes mellitus, multiple myeloma (a cancer of the bone marrow), dehydration and non-alcoholic steatohepatitis (fat in the liver, with inflammation and damage). Medical students learn from such cases how basic blood tests can inform complex diagnoses.

Paradoxically, employers are keen to hire general pathologists, but few people are undertaking the training. In 2003 Andrew chaired a College subcommittee on the future of general pathology. He believes that young doctors need incentives to enter this tough training stream.

Possibilities include better co-ordinated training rotations and perhaps extra leave and subsidies for workshops and conferences that trainees need in order to keep up with their various disciplines.

“If we want to have enough general pathologists, we have to make it happen; we have to improve the system,” he says.

Dr Konrad Muller, Professor Emeritus of Pathology and Honorary Fellow in the School of Health Science at the University of Tasmania, has devised innovative teaching programs in pathology. He is acting director of anatomical pathology for the Queensland Health Pathology Service and his task is to expand staffing in anatomical pathology and enhance the registrar training program.

In meeting this brief, he has looked at the training, skills and workload of general pathologists, and also how these are changing. The greatly increased use of machines has affected not only chemical pathology but, to a lesser extent, also haematology and even microbiology.

Here the professional role of pathologists has been reduced. Professor Muller groups these specialties together under the heading of Clinical Pathology. He suggests a new system of training for general pathologists, under which he would allocate some months for chemical pathology, six to eight months for haematology and about one year for microbiology.

In his second group, called Morphological Pathology (where the professional role of pathologists remains high), he lists surgical pathology, cytopathology, autopsies and aspects of haematology. Professor Muller would allocate about three years of training in all to this second group of subjects.

He is convinced that Australia still needs well-trained general pathologists. The general pathologist must be competent in each of the specialties and manage the whole laboratory. He or she has unique skills to talk to clinicians about laboratory medicine.

Professor Muller recommends more funding for extra traineeships in general pathology, as well as modernisation of the training program, its examination and assessment.

The RCPA has approved the introduction of a new Clinical Pathology Fellowship and is in discussion with Professor Muller over a revised approach to General Pathology training. Dr Debra Graves, RCPA CEO, said “for such a training program to be successful it will be vital that there are dedicated training positions available. Trainees interested in General Pathology often report major difficulties in obtaining positions in General Pathology.

In rural areas, he believes the days of solo pathology practice should be over. Practices should have at least two pathologists, at least one with general pathology training.

But not every pathologist accepts this view. Dr Cosmas Wong is a general pathologist in Canberra who runs a solo private practice. He enjoys the variety of work and his ability to see a patient as a person rather than a piece of tissue or a blood count.

He sees similarities between his role and that of a general practitioner. Dr Wong is very aware that medicos have their limitations: “No one can know everything.” Hence, just as GPs refer some patients to a suitable physician or surgeon, he consults freely with specialist pathologists. Dr Wong works for Mayne and works very closely with his pathology colleagues in Sydney at Laverty Pathology.

Associate Professor Stephen Weinstein is director of pathology, Gold Coast Campus, for the Queensland Health Pathology Service. He trained in general pathology in Australia and the US.

Being a surf-lover, he has also worked, sometimes as a volunteer, in Samoa,



Dr Konrad Muller, Professor Emeritus of Pathology and Honorary Fellow in the School of Health Science at the University of Tasmania, is proposing new teaching programs in general pathology.

Micronesia, East Timor and Madagascar. When he moved to the Gold Coast a decade ago, he was the only pathologist. Since then, both the population and the services have grown.

A paradox exists whereby training institutions rush to recruit qualified general pathologists, but do not rush to employ them as trainees in the first place.

Professor Weinstein feels that some laboratories find trainees in general pathology less useful than specialist trainees, since the former start a new area of pathology each year. By contrast, the latter become more and more expert in their chosen specialty as they progress and can function as junior consultants in their final years of training.

But once they are trained, general pathologists are very valuable, especially in medium-sized towns that are too small to have a sub-specialist for each area of pathology. Because of staff shortages in anatomical pathology, many general pathologists find they do more of this work than any other kind.

Professor Weinstein points to a worldwide shortage of pathologists and would like the profession to do more to interest medical undergraduates.

Exams being a fact of life for general pathologists, examiners are appointed with great care. The chief examiner for Australasia is Dr Tom Bowen.

After training in general pathology, Dr Bowen became director of clinical pathology at Newcastle Hospital. He was tempted to switch permanently to the specialist stream, but a month of haematology while relieving for an ill colleague turned him back to general pathology. Such is the shortage of general pathologists, that he has had no general trainees to examine in the past two years.

The Australian Medical Workforce Advisory Committee has recommended funding for an extra 100 pathology trainees. In all, Australia has only 250 training posts and only 1250 practising pathologists.

What to do? To stimulate medical students, Dr Bowen wants universities to reintroduce basic sciences such as

practical haematology into the curriculum. Currently there are more young doctors interested in a career in pathology than there are training positions. Unfortunately the position is not available for General Pathology. Urgent funding of new training positions by State /Territory and Commonwealth Governments for General and Specialist Pathology are needed as a matter of urgency.

Dr Patricia Bannatyne is among the many who moved from general pathology to specialist practice, in her case in anatomical pathology.

But that was not the only change in her life. In 1988, with her electrical engineer husband, she moved to a grazing property near Orange, in New South Wales. Since then she has worked part-time in Orange with Barratt & Smith Pathology.

But she has also had a taste of general pathology. Over five years, Dr Bannatyne and her colleagues advised up to 150 patients on their dose of anticoagulant drug warfarin. That sounds easy, but Dr Bannatyne says: "This could take us up to an hour per day. We had to deal with some pretty colourful, and difficult, characters. Since we were easier to ring than their own GPs, the patients appreciated this personal service and the numbers boomed. Finally the service became such a burden that we had to stop it."

Dr Bannatyne feels there is a need for general pathologists but also that it is getting harder to fill that role effectively, because it is so difficult to keep up with developments in more than one field.

She enjoys the close contact with clinical colleagues and the excitement of making the initial diagnosis when patients first present.

Her colleague Dr Garry Simmons also trained as a general pathologist. He sees more scope for general pathology in rural than in city areas and in smaller rather than larger practices.

In reality, the workloads of general and specialist pathologists can overlap, but there is still a strong belief that generalists are needed. The challenge is to attract more candidates to this particularly tough area, which may mean alterations to training and greater incentives.

Meeting that challenge alone will not be enough, though – then comes the longer-term goal of retaining people in the field. 🔥