From the Medical School …

Lancaster Medical School progresses towards independence

Ruth Hutchison

As I write this article, we are waiting to hear from the General Medical Council (GMC) about the result of our application for Lancaster Medical School to be allowed to have its own intake, to an independent and new curriculum which will lead to the award of a Lancaster MBChB at the end. The GMC Undergraduate Education Board met on 30 October, and it really is 'any minute now', which is strange for me as it's almost exactly ten years since I first started to work on this project.

Most of you will know that it was always our intention to apply for independence and a decoupling of the arrangement with Liverpool Medical School. In May 2011, Lancaster University did its own review of how the medical school was going; they were happy, and recommended to the University's senate that we should aim to gain degree awarding powers from the GMC at the earliest opportunity. We started the process in August 2011, with a formal letter from Professor Garden and Professor Greer (Dean of Liverpool Medical School) – they have always supported our ambitions. Following this, the GMC set up a dedicated visit team consisting of medical education specialists, clinicians, a medical student and a lay member. This team will remain with us for the whole process, and the same team is visiting Liverpool Medical School.

We then embarked on the mammoth task of completing the GMC's application form for a new school. We were helped by a 'mock visit' undertaken by Professor Sam Leinster and Dr Trevor Beedham, who gave us some very valuable pointers, and finally submitted the form and several hundred accompanying documents just before Christmas 2011. The emphasis of the paperwork was to demonstrate how we meet the outcomes and standards for undergraduate medical education as laid out by the GMC in their publication 'Tomorrow's Doctors' (2009). It was quit a difficult balance to achieve as we had to show the GMC how we have sucessfully delivered our version of the Liverpool curriculum over the last six years, but also show how we would do things in the future – but we also made it clear that we would not make major changes to the curriculum (ie we would retain PBL, early clinical contact, student assistantship in Year 5).

Having considered our submission, the GMC sent an 'action plan' which helped us to focus on the areas they were most likely to question. The visits took place in May and June 2012, starting with Royal Lancaster Infirmary, then the main two-day visit to Lancaster Medical School, and finally observation of a fourth-year OSCE. Many of you were involved in these visits, and we were given immediate feedback which indicated that 'it is highly probable that the visit team will recommend that the quality assurance process continues on a rolling year-by-year basis, following the first cohort of Lancaster students to graduation' – in other words, a Lancaster intake in 2013-14 and a long process of future visits leading to the first Lancaster graduates in 2018. We were asked to provide more details of exactly how we would decouple from Liverpool, for example around finance and HR, and quality monitoring systems, but with assessment also being a very important area, because we would be setting our own exam papers and OSCEs. This plan was submitted in August 2012 and the final report of the visit cycle was received at the end of September. We are hopeful that we will be able to convince the GMC through a more independent delivery of years 2-5 of the Liverpool curriculum (eg by making curriculum revisions, setting exam papers, running our own exam boards, dealing with our own fitness to practise cases, all with Liverpool's agreement) that we will be ready to be granted full independence and Lancaster graduates in a shorter timescale (hopefully three years).

Anticipating a positive result, we are setting up working groups for the various curriculum development tasks and associated assessment tasks – and would like to thank all those clinicians who have helped us get to this point. There is a lot more to do!

Ruth Hutchison is project manager at Lancaster Medical School.

A focus on medical ethics

Laura Machin

Laura has been overwhelmed by the enthusiasm for medical ethics from colleagues at the local hospitals and university since arriving at Lancaster Medical School in May 2011. As the new lecturer in Medical Ethics, she has been keen to capitalise on this interest and has sought out willing 'volunteers' to coordinate a number of extracurricular activities related to medical ethics for staff and students, such as seminars, debates, and TV and pizza nights.

Laura Machin

Sara Fovargue

LANCASTER UNIVERSITY AND HOSPITALS SEMINAR SERIES

After much discussion with Peter Dyer (consultant oral and maxillofacial surgeon, Royal Lancaster Infirmary (RLI)), Anne Garden (head of Lancaster Medical School), and Sara Fovargue (senior lecturer, Centre for Bioethics and Medical Law), the Lancaster University and Hospitals Seminar Series has been established. The aim of the Seminar Series is to foster discussion around medical ethics matters, as well as offer staff working at the university and local hospitals the opportunity to network in an informal setting. Seminars are held early evening at the Education Centre, RLI, with hot food and drinks available, funded by the Institute of Medical Ethics and Lancaster Medical School. A variety of speakers are chosen from the hospital and university, allowing them to showcase their 'work', as well as illustrating the various and diverse elements of medical ethics.

The first seminar was held at the end of May 2012 and was titled 'Organ Donation in the 21st Century'. The invited guest speaker for this seminar was Professor Bobbie Farsides, a member of the Nuffield Council on Bioethics, who spoke about the Council's recent Report on Human Donation. Dr Mark Wilkinson, the clinical lead for organ donation at the RLI, offered a 'jobbing' clinician's perspective on organ donation and the current challenges facing the RLI. Dr Sara Fovargue's presentation was well received from medics in the audience who appreciated having a legal perspective on the issues that organ donation raises for them. The final presentation was from Reverend Stephen Tranter (RLI chaplain), who gave a lively talk from a pastoral, theological and personal perspective. All speakers were then invited to form a panel and respond to questions from the audience. This part of the evening was chaired by the head of the medical school, Professor Anne Garden, who also drew the seminar to a close.

Three weeks later, the second seminar took place which explored end-of-life matters. Dr Dominic Bell, an intensive care consultant at Leeds General Infirmary, was the invited guest speaker, whose presentation provided humour as well as set up debate. Professor Shelia Payne from the International Observatory on End-of-Life Care at the University offered insight into the research activities at the Observatory as well as highlighting the ethical issues on end-of-life care on a global scale. Dr Rachel Markham presented on the issues that face her as an intensive care consultant at the RLI. The final presentation was from Professor Suzanne Ost from the Law Department and Centre for Bioethics and Medical Law, who explained the legal aspects relating to end-of-life care matters. The seminar was concluded with a lively question and answer session chaired by Peter Dyer.

Feedback from people attending the seminars has encouraged Lancaster Medical School and the Centre for Bioethics and Medical Law to continue with the Seminar Series from 2013. Sara and Laura are keen to receive suggestions for seminar themes or recommended guest speakers (Sara: **s.fovargue@lancaster.ac.uk** ; Laura: **l.machin@lancaster.ac.uk**).

Another seminar is planned for early spring and it is envisaged that the seminar will explore ethical matters relating to emergency medicine. Further information on the Centre for Bioethics and Medical Law can be found at: **http://www.lancs.ac.uk/bioethics_and_medlaw/** . If you are interested in holding your own event relating to medical ethics, funding opportunities may be available through the Institute of Medical Ethics (**http://www.instituteofmedicalethics.org**).

TV AND PIZZA NIGHT

In response to first-year medical students' desire for more opportunities to discuss medical ethics, a TV and pizza night has been organised. Lucy Tierney, a general practitioner and community clinical teacher at the medical school, and Laura have chosen clips from the American television programme 'House' which generate discussion around medical ethics concepts and themes. A book to accompany the TV programme, which creatively explores medical ethics and philosophy in relation to 'House', is also available in the university library.

Lucy and Laura hope the TV and pizza nights will encourage medical students to discuss medical ethics matters outside of an academic environment and make the discipline more applied and relevant.

Two evenings have been planned for this term, with the first one taking place on 26 November at Grizedale's college bar from 5.30pm. Free pizza, paid for by Lancaster Medical School, will be available, and the evenings are open to medical students from all year groups. The evenings (and pizza) are on a first-come first-served basis, with the bar area reserved for the events holding a maximum of 20 students, so please contact Lucy or Laura to express your interest in attending the evenings (Lucy: **lucytierney@doctors.org.uk**). Alternatively, if you are a healthcare professional who may be interested in facilitating a TV and pizza night, please contact Lucy or Laura.

MEDICAL ETHICS DEBATING SERIES

Fourth-year medical student Andrew Blanshard looked to see what extracurricular medical ethics activities are available to students elsewhere. After discussions with his peers in MedSoc, Andrew and Laura decided a student debating series on medical ethics would be of interest to students. Lancaster University Friends Fund is kindly funding the series of debates, which will take place in January and February 2013, and Monty Elbalal from the university debating society has acted as adviser on the rules of debating. Julian Sheather, Deputy of the British Medical Association Ethics Committee, and Dr Hazel McHaffie, author of medical ethics novels, have agreed to act as Chairs for the debates. The debates will take place in Lancaster Castle and Lancaster Cathedral, which have been chosen to correspond to the various elements of medical ethics as a discipline, ie law and morality. Students from all university departments, including the medical school, will be invited to make up teams of three to compete for prizes of vouchers for the value of £25, and a trophy available for the overall winning team. The student teams will be asked to debate on motions relating to medical ethics, which have been proposed by Lucy Tierney. Staff and students from the university and local hospitals are invited to attend the debates and asked to vote on the night on whom they believe should win the debate. Students wishing to put forward a debating team made up of three should contact Laura by the end of November.

LAW SCHOOL AND CENTRE FOR BIOETHICS AND MEDICAL LAW SEMINAR SERIES

The Law School and the Centre for Bioethics and Medical Law are hosting three seminars, which take place at the university; each begins at 2pm. On 7 November, Dr Sheelagh McGuinness from the University of Birmingham's Law School spoke on the 'Legal Duties of Researchers', whilst Dr Amel Alghrani from Manchester University's Law School will explore the 'Bonfire of the Quangos: Lighting A Fire Under HFEA and HTA' on 28 November. The final presentation for this term will be given by Dr Rebecca Bennett from the Law School and Centre for Social Ethics and Policy at the University of Manchester on 'Bioethical Controversy, Ethical Compromise and the Criminal Law' on 5 December. Medical students and health professionals are very welcome to attend. Please contact Sara for further details.

POSTGRADUATE OPPORTUNITIES

A number of postgraduate opportunities are available at the university relating to medical ethics, either through Masters or PhDs. This year has seen an intercalating medical student, Heather Dixon, explore the clinical and ethical aspects of organ donation with Mark Wilkinson, clinical lead for organ donation at the RLI, and Laura acting as co-supervisors. Her research will entail interviewing NHS professionals about their ethical decision-making when faced with organ donation. It is anticipated that her findings will be of use to the hospital's Organ Donation Committee, and will be published in the journal *Clinical Ethics*. If you are a healthcare professional at Furness General Hospital or RLI and wish to propose a research project which examines the ethical aspects of medicine for an intercalating student, please get in touch with Laura. A taught Masters is also available at the Centre for Bioethics and Medical Law (**http://www.lancs.ac.uk/bioethics_and_medlaw/llm-masters.htm**). Please contact Sara Fovargue for further information.

FUTURE PLANNED ACTIVITIES

Laura and Gill Vince, the Director of Medical Studies, have discussed the possibility of holding clinical ethics workshops to encourage fifth-year medical students to discuss 'ethics' in an applied way, as well as offer ethical guidance on real-life cases. Dr Ian Donaldson, the Chair of the Lancashire Practical Clinical Ethics Committee, has agreed to come to speak to students to discuss his experiences of being on the committee. Laura will be seeking out 'willing volunteers' from the hospitals and university to act as facilitators for these student clinical ethics workshops in the future.

Finally, as the medical school moves towards achieving independence from Liverpool Medical School, it is anticipated that a webpage dedicated to medical ethics will be created to advertise forthcoming extracurricular activities, research and postgraduate opportunities. A mailing list for activities related to medical ethics has also been mooted.

DON'T BE SHY . . .

Laura is very keen to grow the current medical ethics expertise at Lancaster Medical School. So, if you have creative suggestions or recommendations on how to make the topic relevant and accessible to students, or you wish to become a willing volunteer for future medical ethics activities, do please get in touch with her. Staff and students welcome!

Student survey: anatomy at Lancaster

Edward Fearnley

INTRODUCTION

The previous issue of the *Journal* contained an interesting editorial by Dr Andrew Severn – 'Anatomy teaching in the Yemen: an ambitious project to build an anatomy school from scratch'.[1] The article provoked discussion about anatomy's place within the undergraduate curriculum. It also stimulated debate amongst local academics and clinicians. Notably absent, however, is the perspective of current medical students.

Medical students at Lancaster University subscribe to a problem-based learning (PBL) curriculum, a different undergraduate experience to that of many consultants. The University of Liverpool website defines PBL as:

> *. . . an educational process that encourages students, working in small groups, to learn through curiosity and to seek out information for themselves . . . linking basic medical science with clinical practice early in the programme, thereby stimulating and maintaining your interest instead of overwhelming it with facts.*[2]

The learning environment is also intrinsically different. Anatomy and other basic sciences are delivered as 'structure and function', and there is less emphasis on didactic method, with group learning and self-directed study. No dissection exists, although there is a dedicated Clinical Anatomy Learning Centre (CALC) for the study of anatomy. Undergraduates initiate clinical attachments in Year 2. This article explores student attitudes related to these topics, as well as discussing the issue more broadly.

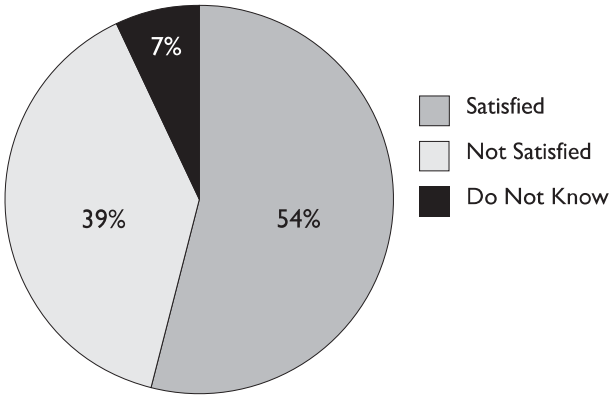
METHOD

In September 2012, a survey composed of open and closed questions was conducted. Questions canvassed how the subject is delivered as part of the curriculum. Current career ambitions and views regarding 'full-body' dissection were also probed.

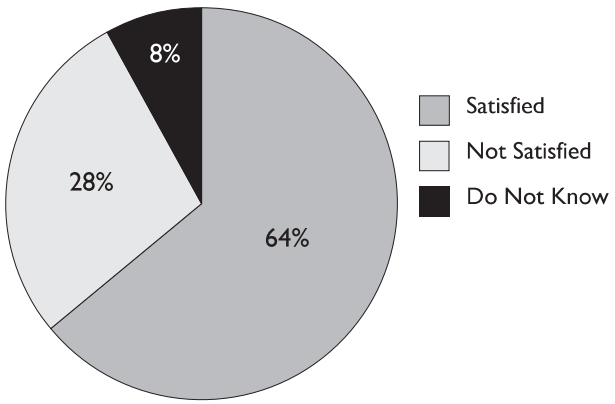
A total of 118 students from Years 2 to 5 responded to the survey (maximum sample size approximately 180).

SURVEY

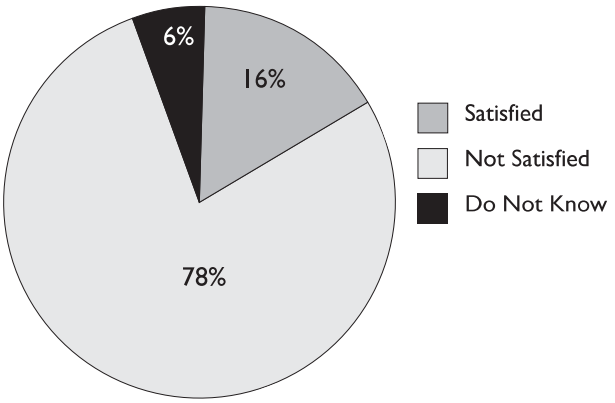
Q1. Are you satisfied with the resources provided for learning anatomy?



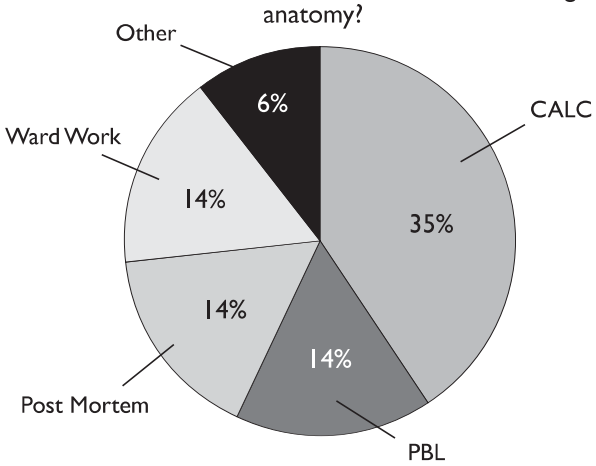
Q2. Are you satisfied with the quality of teaching for anatomy?



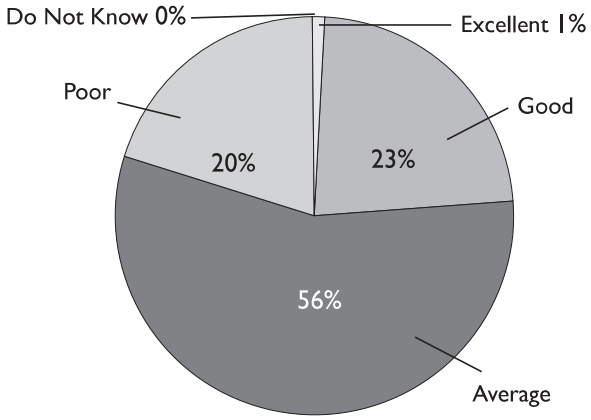
Q3. Are you satisfied with the quantity of teaching for anatomy?



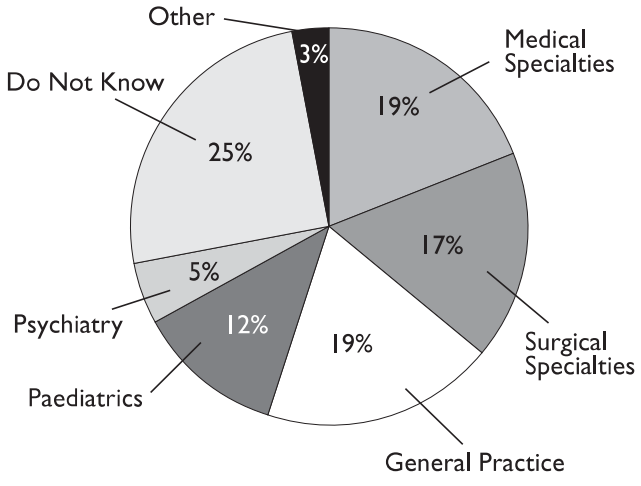
Q4. What is the most effective arena for learning anatomy?

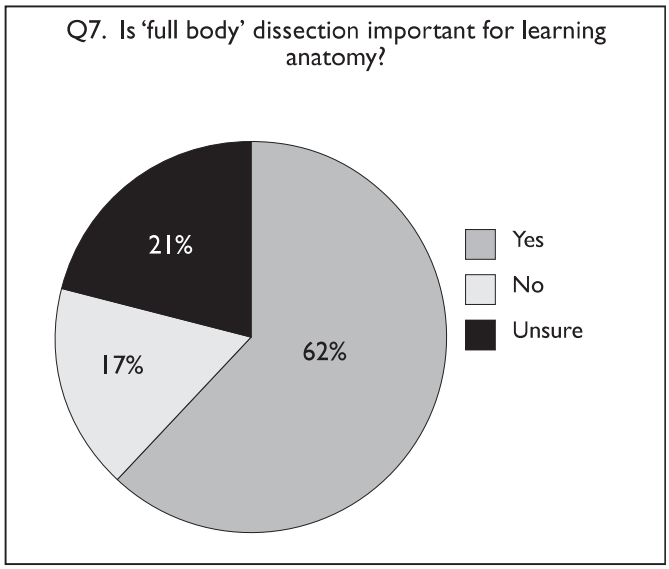


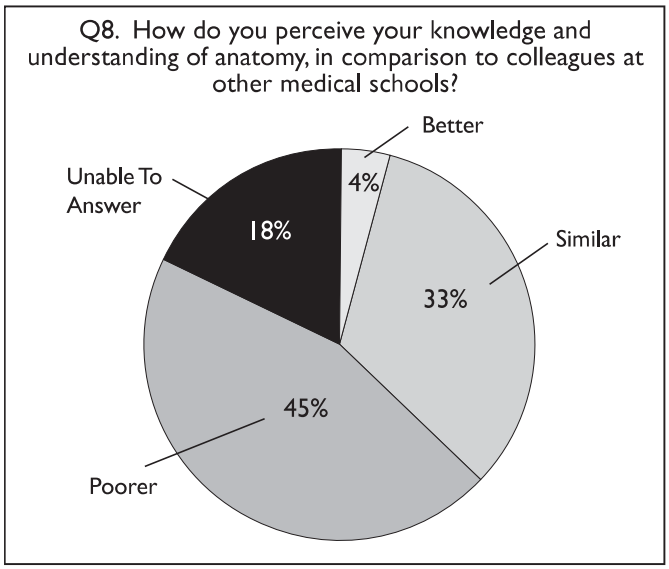
Q5. How do you rate your knowledge and understanding of anatomy?



Q6. Broadly speaking, which area of medicine do you currently aspire to specialise in?







DISCUSSION

The survey has generated a large body of data, revealing student perceptions of anatomy. As part of this overview, the results allow us to observe progression from Year 2 (new to the clinical environment) to Year 5 (months from commencing foundation training). The results should prove insightful to those developing undergraduate training at Lancaster and, more ambitiously, to a general audience.

Students are interested in anatomy. For example, in 2010 the *MedSoc* (medical-student-run society) devised a conference around the subject, stimulating a response from students and local academics/clinicians.

Nevertheless, the survey data probes student opinion on anatomy delivered via a PBL course, currently run jointly by Lancaster, Liverpool and local health trusts.

What do students think about anatomy?

An argument favouring a greater emphasis on anatomy was formed in 'Anatomy teaching in the Yemen'.[1] Furthermore, the introduction of 'full-body' dissection was discussed. A majority (62%) of students believe that 'full-body' dissection is important for learning anatomy. This compares to (28%) students regarding post mortem as the most effective method of learning anatomy, and many students cited theatre as a further conducive environment.

Do students want a change?

Of the Lancaster students, 62% are at least *interested* in the idea of dissection. However, the majority of students (54%) concurrently consider themselves satisfied with the resources provided for learning anatomy and 35% cited the Clinical Anatomy Learning Centre (CALC) as offering the most effective learning experience.

Whilst CALC contains no human tissue, there is potential for compromise. A substantial 78% of students were unsatisfied with the *time available* for anatomy teaching. Could more post mortem sessions be made available to students?

Others call for the CALC experience to be developed further. Sixty-four per cent of students were satisfied with the *quality* of teaching – but many believed CALC to be underutilised.

Students described small-group histology and radiological teaching as beneficial. This highlights the potential of images in teaching anatomy.

It is also apparent that, initially, individual students lack the experience to learn anatomy in an exclusively self-directly manner. As Greek and Latin have gradually declined from secondary education, anatomy (and the basic sciences) is, literally, a foreign language. Securing the basics is desirable.

The university has recently reacted to student demand for increased anatomy teaching by introducing 'refresher' lectures in Year 3.

Future career aspirations

Question six asked students which area of medicine they wished to specialise in. Of interest is that 17% of students wish to pursue a surgical career. This percentage correlates with the General Medical Council (GMC) list of registered practitioners. As of 25 September 2012, this totalled 252,888. Furthermore, surgeons occupy four out of the top 20 specialties.[3] These 20 specialties account for 75.28% of the specialist register, with surgeons on 19.3%. This is in concordance with the survey; a majority of medical students do not pursue a surgical career. There is an argument put forward in the article[1] that prompted this discussion that most students do not require the anatomical expertise of a surgeon.

Also, as students progress through Years 2 to 4, the percentage aspiring towards surgery decreases (from 11% to 6%). To blame may be the lack of emphasis toward anatomy.

Ultimately, anatomy delivery must encourage future surgeons. Conversely, the quantity must not impinge on other areas of the core curriculum. This is a balancing act, and the role of post-graduate training also requires consideration.

Is anatomy a postgraduate subject?

A query of 'how much anatomy do medical students need to know?' remains. Any individual answer may be shaded by future career plans, and the differing expectations of supervising staff. There is no doubt that all medical students (and doctors) require a good knowledge and understanding of anatomy. Defining the level of 'good' however, is more challenging. Another thesis coexists, suggesting that anatomy

should be limited to postgraduate training. It is difficult to ascertain as to which elements should feature in postgraduate curricula. The student who considers that a career in psychiatry would spare them their difficulties with anatomy may get a rude shock when confronted with the complexities of the planum temporale, or inferior temporal gyrus.

When extrapolating this to medicine more broadly, it becomes apparent that an equivalent level of anatomical knowledge would not be expected from a medical student. There is not adequate time to cover this depth of anatomy in five years.

Instead, this reiterates the requirement for a 'good basis'. Whilst difficult to define, this suggests being conversant in anatomical parlance and associating structure and function to common pathological processes. As demonstrated, an encyclopaedic knowledge may be initially unattainable. Notwithstanding, postgraduate examinations indicate that this is ultimately accomplishable.

How 'good' are Lancaster students at anatomy?

The majority of students consider their anatomy knowledge and understanding to be average. Forty-five per cent consider their anatomy knowledge and understanding to be poorer than colleagues from other medical schools. This perception dominates, even though medical schools vary their anatomical delivery. It is possible that some universities (eg UCL) produce superior anatomists, as the subject receives greater emphasis.

Contrarily, have specialists overestimated the level required? Anecdotal evidence suggests that surgeons expect students to know more anatomy than other doctors. This is not necessarily counterproductive – a substantial number of students cited 'theatre' as a prime arena for consolidating anatomical understanding. Thus, the use of theatre to improve anatomical knowledge should certainly be encouraged.

However, the nature of surgery proffers more *opportunity* to test student knowledge of anatomy. In other specialties, these chances are potentially less befalling.

Potential solutions

It is understandable that those favouring an increase in anatomy exposure are surgeons, for whom gross anatomy is prominent in daily practice. And whilst the survey data demonstrates that 17% students currently aspire to a surgical career, there is no reason why anatomy exposure cannot be increased, particularly amongst interested students.

At this juncture, it is pertinent to allude to the travails of consultant microbiologist Dr David Telford and colleagues. Having arrived at the conclusion that students are not exposed to clinically relevant microbiology, efforts have been made to remedy this via a lecture series (commencing in Year 1), laboratory tutorials and seminar teaching. Perceiving a potential weakness, a specialist with postgraduate knowledge has attempted to rectify and translate key clinical concepts for an undergraduate audience. Further expansion is planned, with a lecture series for Year 1, culminating with 'rotation-related' microbiology tutorials through ascending years. Whether this approach could be calibrated to fully integrate the PBL curriculum (to maximise synthesis), is another debate, but the energy displayed is commendable.

Numerous surgeons are already involved in undergraduate teaching. However, there are alternative avenues through which to supplement exposure. Special study modules (SSM) and selective in advanced medical practice (SAMP) options are excellent ways potential surgeons can access anatomical topics outside the regular curriculum.

CONCLUSIONS

The student questionnaire has proved useful in continuing the debate locally. It has also demonstrated that many students are satisfied with anatomy at Lancaster, but still signal areas for potential development. 'More' anatomy is desired, yet this obscures a wider message. There is some anxiety towards basic science delivery. Support also exists for post mortem as a learning tool. Deciding the emphasis of anatomy on the curriculum is a further challenge.

Is the purpose of a primary medical qualification to train a foundation year doctor? Is it to train a general practitioner? Or a specialist? In reality, it is simultaneously all and none. Medicine remains a broad church and far too complex to synthesise entirely at undergraduate level. It infers that increased presence of one subject is at the detriment of another. Anatomy permeates medicine, and whilst traditionally allied to surgery, topics such as neuroanatomy are fundamental to the neurosciences (including psychiatry).

More locally, students interested in surgery benefit from increased exposure via SSMs and SAMPs. It may also be that the local debate has become too narrow. Anatomy is relatively well provided for at Lancaster. Physiology is also important, yet lacks a similar resource centre.

Specialists delivering basic science to students must also engage with the PBL curriculum; by doing so, learning can be contextualised and orchestrated. And whatever individual conclusions remain, it is an exciting period to develop the curriculum.

At the least, this small survey will encourage further studies and discussion. Particularly, it would be interesting to survey local foundation trainees, assessing their own knowledge and understanding of anatomy, and, just as relevant, the role anatomy plays in clinical practice.

LIMITATIONS

Questionnaire design is eternally subject to scrutiny: 118 students were surveyed. This is a substantial number, but is not the entirety of approximately 180 students currently studying in Years 2 to 5. Year 1 students were excluded, due to only recently commencing their studies.

REFERENCES

1. Severn A. Anatomy teaching 'in the Yemen': an ambitious project to build an anatomy school from scratch. MBMJ 2012;6(8):218-20

2. http://www.liv.ac.uk/study/undergraduate/courses/2013/faculty-of-health-and-life-sciences/institute-of-learning-and-teaching/medicine/medicine-and-surgery-mbchb/overview/

3. http://www.gmc-uk.org/doctors/register/search_stats.asp