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Competing interests: AM was a consultant on Quality Use of Medicines to Merck, Sharp and Dohme Australia (1997), has been a member of advisory boards for Pfizer and Sanofi-Synthelabo (1999-2000), and was sponsored to attend Global Health Care 2000 Conference (Eli-Lilly). PBM has received research funding and honorariums in the past five years from several pharmaceutical companies that manufacture antidepressant medications. IBH has received research funding and honorariums in the past five years from several pharmaceutical companies for conduct of general practice training programmes and from Wyeth for participation in international meetings detailing the economic and social costs of depression.

- McManus P, Mant A, Mitchell P, Montgomery WS, Marley J, Auland ME. Recent trends in the use of antidepressant drugs in Australia, 1990-1998. *Med J Aust* 2000;173:458-61.
- Carlsten A, Waern M, Ekedahl A, Ranström J. Antidepressant medication and suicide in Sweden. *Pharmacoepidemiol Drug Saf* 2001;10:525-30.
- Isacsson G. Suicide prevention—a medical breakthrough? *Acta Psychiatr Scand* 2000;102:113-7.
- Rihmer Z. Can better recognition and treatment of depression reduce suicide rates? A brief review. *Eur Psychiatry* 2001;16:406-9.
- Cook TD, Campbell DT. *Quasi-experimentation: design and analysis issues for field settings*. Chicago: Rand McNally, 1979.
- Australian Bureau of Statistics. *Suicides, Australia*. Canberra: Commonwealth of Australia, 2000. (No 3309.0.)
- WHO Collaborating Centre for Drug Statistics. *Methodology. Guidelines for ATC classification and DDD assignment*. 2nd ed. Oslo: WHO, 1998.
- Bridges-Webb C, Britt H, Miles DA, Neary S, Charles J, Trynor V. Morbidity and treatment in general practice in Australia 1990-1991. *Med J Aust* 1992;157(suppl):S1-56.

- Vagholkar S, Spence J, Charles J. General practice audit as a quality assurance activity. An evaluation of the morbidity and therapeutic index. *Aust Fam Physician* 1996;25:370-5.
- Britt H, Sayer GP, Miller GC, Charles J, Scallan S, Horn F, et al. *General practice activity in Australia 1998-1999*. Canberra: Australian Institute of Health and Welfare, 1999. (AIHW Catalogue Number: GEP 2, General Practice Series No 2.)
- Catalano P, Chikritzhs T, Stockwell T, Webb M, Rohlin C-J, Dietze P. *Trends in per capita alcohol consumption in Australia, 1990/91-1998/99*. Perth: National Drug Research Institute, 2001. (National Alcohol Indicators Bulletin No 4.)
- Chikritzhs T, Stockwell T, Heale P, Dietze P, Webb M. *Trends in alcohol-related road injury in Australia, 1990-1997*. Perth: National Drug Research Institute, 2000. (National Alcohol Indicators Bulletin No 2.)
- Australian Bureau of Statistics. Australian social trends 2001. Work—paid work: trends in employment population ratios. www.abs.gov.au/ausstats (accessed 13 Aug 2002).
- Morrell S, Page A, Taylor R. Unemployment and youth suicide. *Economic and Labour Relations Review* 2001;12:4-17.
- Heady B. Old age is not downhill: the satisfactions and well-being of older Australians. *Aust J Ageing* 1999;18(suppl):32-37.
- Isacsson G, Bergman U, Rich CL. Epidemiological data suggest antidepressants reduce suicide among depressives. *J Affect Disord* 1996;41:1-8.
- Hickie IB, Davenport TA, Naismith SL, Scott EM, Hadzi-Pavlovic D, Koschera A. Treatment of common mental disorders in Australian general practice. *Med J Aust* 2001;175(suppl):S25-30.
- Preskorn SH. Antidepressant drug selection: criteria and options. *J Clin Psychiatry* 1994;55:6-22.
- Mackay FR, Dunn NR, Martin RM, Pearce GL, Freemantle SN, Mann RD. Newer antidepressants: a comparison of tolerability in general practice. *Br J Gen Pract* 1999;49:892-6.
- Britt H, Miller GC, Knox S, Charles J, Valenti L, Henderson J, et al. *General practice activity in Australia 2000-01*. Canberra: Australian Institute of Health and Welfare, 2001. (AIHW Catalogue Number: GEP 8, General Practice Series No 8.)
- Naismith SL, Hickie IB, Scott EM, Davenport TA. Effects of mental health training and clinical audit on general practitioners' management of common mental disorders. *Med J Aust* 2001;175(suppl):S42-7.
- Hickie IB. Depression and the community. Responding to the Australian experience of depression. *Med J Aust* 2002;176(suppl):S61-2. (Accepted 13 March 2003)

Preregistration house officers' views on whether their experience at medical school prepared them well for their jobs: national questionnaire survey

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The aims of training at medical school are to lay the educational foundations for a lifelong career in medicine and to equip junior doctors well for the first stage in their working lives. To gauge the extent to which the second objective is being achieved we sought views of doctors who graduated from medical schools in the United Kingdom in 1999 and 2000.

Methods and results

We regularly undertake surveys of newly qualified doctors, to establish their career choices and progression.^{1 2} In our most recent surveys we included the statement: "My experience at medical school prepared me well for the jobs I have undertaken so far." We invited respondents to state their level of agreement on a five point scale from "strongly agree" to "strongly disagree."

We mailed questionnaires containing the statement to 5330 doctors: all 4221 qualifiers in the United Kingdom of 1999 and 1109 qualifiers (a random 25%) of 2000. Seventy three doctors were untraceable, and 14 wrote back, declining to participate. Of the remaining 5243, 3446 replied (67%; 72% (1972/2722) of women, 59% (1471/2521) of men; response rates by medical school varied from 77% at the highest to 59% at the

lowest. Three hundred and sixty six of the respondents completed a shorter questionnaire, offered as an alternative to initial non-responders, that excluded the statement; of the other 3080 respondents, 3062 scored the statement.

Of the respondents, 4.3% (133) strongly agreed that their training had prepared them well for the jobs they had undertaken so far; 32.0% (978) agreed; 22.5% (689) neither agreed nor disagreed; 29.7% (908) disagreed; and 11.6% (354) strongly disagreed. Differences between men and women were small. Differences between medical schools were large (figure), ranging from 19.8% strongly agreeing or agreeing at one medical school to 73.0% at another.

At the end of the questionnaires respondents were invited to comment on any aspects of their training, career choices, or work. Comments were transcribed and coded according to topic. Of 1353 respondents (39.3%) who wrote a comment, 57 wrote about their preparation at medical school for work as a preregistration house officer (PRHO). Of these, four had felt well prepared and 53 had not. Example comments, reproduced verbatim, were that "Medical school provided excellent factual preparation for PRHO jobs

(see also p 1019)

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Responses to the statement "Medical school prepared me well for the jobs I have undertaken so far" from graduates of 23 UK medical schools. Error bars denote 95% confidence intervals for the percentages "who strongly agreed or agreed" and who "strongly disagreed or disagreed." For each medical school, the percentage of doctors who stated "neither agree nor disagree" is the difference between 100% and the sum of the two percentages shown

but was limited in basic problems found on the wards"; "Not enough emphasis on real life situations"; "Not enough time shadowing PRHO prior to commencing work." Six also commented that, in their view, the practicalities of the job could be learnt quickly, for example: "Felt inadequately prepared for surgical house jobs—but you can pick it up very quickly."

Comment

Differences between medical schools were large in how well their graduates felt prepared for their house jobs. The findings raise questions that we cannot answer from

our survey. Are mismatches between experiences at medical school and work important, or are they a short term hindrance and easily overcome? Does the preregistration year require tasks, skills, and activities that medical schools do not expect to teach? We understand from deans of medical schools that, since the time covered by our survey, curriculum changes have placed greater emphasis on practical experience. Systematic, in-depth feedback to medical schools from their graduates is needed. Because of differences between short term and longer term educational needs, and because the education of medical students serves the generic needs of all clinical specialties, this should be done with feedback from experienced doctors as well as junior doctors. Decisions also need to be made, as the General Medical Council and Department of Health recognise, about the distribution of work and training across the time spent in medical school, the preregistration year, and the senior house officer years.^{3 4}

Karen Hollick administered the survey, and Janet Justice and Alison Stockford entered the data. We thank all the doctors who participated in the study.

Contributors: TL and MJG designed the survey. JE designed the free text coding scheme. GT and TWL analysed the data. MG wrote the first draft of the paper. All authors contributed to subsequent drafts and are guarantors.

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- 1 Lambert TW, Goldacre MJ, Edwards C, Parkhouse J. Career preferences of doctors who qualified in the United Kingdom in 1993 compared with those of doctors qualifying in 1974, 1977, 1980, and 1983. *BMJ* 1996;313:19-24.
- 2 Goldacre MJ, Davidson JM, Lambert TW. Career choices at the end of the pre-registration year of doctors who qualified in the United Kingdom in 1996. *Med Educ* 1999;33:882-9.
- 3 General Medical Council. *Implementing the new doctor: the education committee's informal visits to UK universities, October 1998 to April 2001*. London: GMC, 2002.
- 4 NHS Executive. *Unfinished business: proposals for reform of the senior house officer grade—a paper for consultation*. London: Department of Health, 2002. (Accepted 23 December 2002)

Prospective randomised controlled trial of laparoscopic versus open inguinal hernia mesh repair: five year follow up

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Laparoscopy enables hernial orifices to be observed and tension-free mesh repair to be carried out effectively. In the first randomised controlled trial on hernia repair, which compared laparoscopic transabdominal preperitoneal (TAPP) mesh with open darn repairs, laparoscopic repair was less painful and enabled patients to return to work and normal activity more quickly.¹ Since then, several randomised controlled studies and systematic reviews have largely confirmed these results.^{2 3} More recently in the United Kingdom, the National Institute for Clinical Excellence reviewed the available early results and published its guidance on the use of laparoscopic surgery for inguinal hernias.⁴

We present results of a randomised controlled trial of inguinal hernia repair with over five years' follow up, comparing laparoscopic TAPP mesh repair with Lichtenstein open mesh repair. The main long term objective of this study was to compare the complication rates of these procedures.

Participants, methods, and results

We conducted the trial at Whipps Cross and North Middlesex University Hospitals between May 1995 and December 1996. The trial design has been reported.⁵ A total of 403 patients were randomised to one of the