- UCLA study. Part II: patient drug preference. Am J Clin Oncol 1985-8-149-7
- 27 Crawford SM, Buckman R. Nabilone and metoclopramide in the treatment of nausea and vomiting due to cisplatinum: a double blind study. Med Oncol Tumor Pharmacother 1986;3:39-42.
- Dalzell AM, Bartlett H, Lilleyman JS. Nabilone: an alternative antiemetic for cancer chemotherapy. *Arch Dis Child* 1986;61:502-5.
 Einhorn LH, Nagy C, Furnas B, Williams SD. Nabilone: an effective
- 29 Einhorn LH, Nagy C, Furnas B, Williams SD. Nabilone: an effective antiemetic in patients receiving cancer chemotherapy. J Clin Pharmacol 1981;21:64-9S.
- 30 George M, Pejovic MH, Thuaire M, Kramar A, Wolff JP. Randomized comparative trial of a new anti-emetic: nabilone, in cancer patients treated with cisplatin. *Biomed Pharmacother* 1983;37:24-7.
- 31 Herman TS, Einhorn LH, Jones SE, Nagy C, Chester AB, Dean JC, et al. Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. N Engl J Med 1979;300:1295-7.
 32 McCabe M, Smith FP, Macdonald JS, Woolley PV, Goldberg D. Efficacy of
- 32 McCabe M, Smith FP, Macdonald JS, Woolley PV, Goldberg D. Efficacy of tetrahydrocannabinol in patients refractory to standard antiemetic therapy. *Invest New Drugs* 1988;6:243-6.

- 33 Neidhart JA, Gagen MM, Wilson HE, Young DC. Comparative trial of the antiemetic effects of THC and haloperidol. J Clin Pharmacol 1981;21:38-42S.
- 34 Steele N, Gralla RJ, Braun DWJr, Young CW. Double-blind comparison of the antiemetic effects of nabilone and prochlorperazine on chemotherapy-induced emesis. *Cancer Treat Rep* 1980;64:219-24.
- 35 Hubbard JR, Franco SE, Onaivi ES. Marijuana: medical implications. Am Fam Physician 1999;60:2583-93.
- 36 Seipp CA, Chang AE, Shiling DJ, Rosenberg SA. In search of an effective antiemetic: a nursing staff participates in marijuana research. Cancer Nursing 1980 Aug:271-6.
- 37 Moore RA, Gavaghan D, Tramèr MR, Collins S, McQuay HJ. Size is everything—the impact of event rate variation on clinical trials and metaanalysis. *Pain* 1998;78:208-16.
- 38 Moore RA, Tramer MR, Carroll D, Wiffen PJ, McQuay HJ. Quantitative systematic review of topically-applied non-steroidal anti-inflammatory drugs. BMJ 1998;316:333-8.

(Accepted 12 October 2000)

Hospital autopsy: standardised questionnaire survey to determine junior doctors' perceptions

J N Lund, G M Tierney

Despite the recommendations of the Joint Working Party of the Royal College of Pathologists, the Royal College of Physicians of London, and the Royal College of Surgeons of England, the rate at which hospital postmortem examinations are carried out continues to decline. We aimed to find reasons why doctors request an autopsy, whether the findings were communicated to the doctors who requested it, and the effects of such communication on the practice of junior doctors.

Methods and results

In July 2000, we sent a standardised questionnaire to junior doctors working in acute medical and surgical specialties in three hospitals in Mid-Trent. The doctors were asked what the reasons were for requesting a hospital (non-coroner's) postmortem examination, whether they were told when the examination was taking place, and whether they attended. They were also asked how often they were informed of the results of such an examination, either by the pathologist or by their consultant, and whether the results of an autopsy had ever changed their practice.

Results

We distributed the questionnaire to 96 junior doctors and it was returned by 82 (28 junior house officers, 30 senior house officers, and 24 specialist registrars). Of these, 18 were unable to complete the survey as they had never requested a non-coroner's postmortem examination. The results from the remaining 64 respondents are summarised in the table. "Consultant request" and "cause of death unknown" were the most common reasons for requesting an autopsy. The reasons given to relatives when asking permission for autopsy ranged from "uncertain cause of death" to "medical curiosity." Only eight respondents who had requested a postmortem had been told when it was taking place and only four had been able to attend. Almost half had never been informed of the results.

Consequently, a similar number stated that they had never changed their practice on the evidence of autopsy findings. Four respondents reported that the results of an autopsy had, however, frequently changed future patient management. However, 75% of junior doctors still believed that the autopsy was a useful tool, with most stating that it was there to help establish an unknown cause of death in a patient.

Comment

examinations

This study indicates that the recommendations of the joint working party have not been implemented and that communication between pathologists and junior doctors remains poor. The joint working party recommends that "responsibility for obtaining permission for an autopsy should lie with the consultant in charge of the case." In the current study, the majority of junior

Junior doctors' responses to a questionnaire on postmortem

Question	No (n=64)
Reasons for autopsy*:	
Consultant's request	38
Cause of death unknown	36
Medical education	10
Family's request	2
No reason given	5
Doctors informed of autopsy taking place:	8
Respondents able to attend autopsy	4
Doctors informed of autopsy results:	
Never	30
In 25% of cases	16
In 50% of cases	10
In 75% of cases	2
Always	4
Change in practice as a result of autopsy:	
No	28
Sometimes	26
Often	4

^{*}Respondents were allowed to cite more than one reason.

Directorate of Surgery, University Hospital, Nottingham NG7 2UH J N Lund specialist registrar in surgery G M Tierney specialist registrar in surgery Correspondence to:

J N Lund jonlund@doctors. org.uk

BMJ 2001;323:21-2

doctors requested an autopsy themselves and most were successful in obtaining permission from the relatives. The party also recommends that "the autopsy or at least a demonstration of the major findings should be attended by a member of the clinical team."

Autopsy findings differ noticeably from clinical diagnoses in 10% of cases. As awareness of clinical errors increases both within the profession and in the general public, feedback from postmortem examina-

tions to clinicians responsible for patient care must be given.

Contributors: JNL is the guarantor.
Funding: None.
Competing interests: None declared.

1 Joint Working Party of representatives from the Royal College of Pathologists, Royal College of Physicians of London and the Royal College of Surgeons. Report of the Joint Working Party on the Autopsy and Audit. London: Royal College of Pathologists, 1991.

(Accepted 19 February 2001)

Training in basic and advanced life support in UK medical schools: questionnaire survey

P S Phillips, J P Nolan

Faculty of Medicine, Southampton University, Southampton General Hospital, Southampton SO16 6YD P S Phillips medical student

Department of Anaesthesia and Intensive Care Medicine, Royal United Hospital, Bath BA1 3NG J P Nolan consultant

Correspondence to: P S Phillips seamusphillips@ hotmail.com

BMJ 2001;323:22-3

Newly qualified doctors are expected to take part in resuscitation from their first day. The General Medical Council states that preregistration house officers should have training in basic life support before they begin their first post and that they should receive advanced life support training during the first year.1 However, it places no obligation on medical schools or trusts to provide a defined standard of resuscitation training. The Royal College of Physicians has stated that advanced life support should be taught in the undergraduate course and that preregistration house officers should be "capable of instituting" advanced life support.2 A recent unpublished survey found that only four out of 16 responding medical schools fulfilled the royal college's recommendations.3 We decided to assess the situation in more depth.

Method and results

A survey was devised in consultation with BMA student representatives of all medical schools in the United Kingdom, using an internet discussion forum. This survey was completed by all representatives in consultation with their medical schools. Additional information was obtained from undergraduate deans. Basic life support training was defined as training in cardiopulmonary resuscitation using a manikin. Uncertificated advanced life support training was defined as compulsory training in the airway-breathing-circulation approach, basic training in the use of a defibrillator, and an introduction to other cardiac rhythms and the use of drugs. Uncertificated courses lasted either half a day or one day. A certificated Resuscitation Council (UK) advanced life support course is a standardised course lasting two or three days with a pass or fail decision at the end.

Completed questionnaires were received from 23 of the 27 schools surveyed. Results were sent to the deans of all 27 medical schools. Replies were received from 10 schools, including one school that had not replied to the initial survey. The other three schools failed to respond both to postal reminders sent two months after the initial survey and to the mailings sent to the deans. The results are summarised in the table.

Comments

The results show that most medical schools provide some form of compulsory advanced life support training. However, two (8%) of the medical schools do not provide any compulsory training, and it is possible that the three schools that failed to respond also provide no training. The extent of training in the remaining schools is variable. This indicates considerable room for improvement.

Doctors still seem to be expected to learn resuscitation skills in the clinical setting, where there is little opportunity to correct poor technique. Once students become preregistration house officers their time for training is limited, and they have no allocated study budget until after the preregistration year. Those who attend advanced life support courses usually do so in their own time and with their own money. As a result, most preregistration house officers receive from the trusts that employ them only non-standardised advanced life support revision courses lasting half a day.

Given this situation, and the fact that many junior doctors are not competent in carrying out effective cardiopulmonary resuscitation,^{4 5} perhaps training in advanced life support should become a standardised and mandatory component of all medical school undergraduate curriculums.

A fundamental question is what training a preregistration house officer needs to be "capable of instituting" advanced life support, as specified by the Royal College of Physicians. Three schools in our survey put their students through a formal advanced life

Number and percentage of medical schools (replies received from 24 of 27 surveyed) providing various types of life support training

Type of training provided	No (%)
Compulsory basic life support training	24 (100)
Compulsory uncertificated advanced life support training	19 (79)
Compulsory certificated two or three day advanced life support course	3 (13)
Some form of advanced life support training	22 (92)
Give crash bleeps to students*	10 (48)

^{*}Only 21 schools replied to this question.