CPR and the RCP (1)
Training of doctors in NHS hospitals

ABSTRACT—Six years after the Royal College of Physicians published its report, most hospitals in the UK with acute coronary beds fail to train or test their doctors adequately in the skills of cardiopulmonary resuscitation. Doctors want more training, and consultants try to give it, but there is a lack of funds for this basic yet critical task.

The standard of cardiopulmonary resuscitation amongst hospital doctors has been criticised [1-4]. The Royal College of Physicians of London responded to these criticisms in 1987 with a working party which recommended that all doctors and qualified nurses be adequately and regularly trained in cardiopulmonary resuscitation (CPR) [5]; that each district health authority should appoint a full time resuscitation training officer; that each hospital should equip and maintain a resuscitation training room; and that a resuscitation committee should be responsible for the management of resuscitation procedures and resuscitation training.

To assess the impact of that report, we conducted a survey of one regional health authority in 1991. We found the facilities for training in that region to be poor and hospital doctors wanting more training than was offered [6].

To establish whether that experience represented that of the UK as a whole, we carried out a similar survey of hospital doctors and hospital managers in July 1992.

Method

The survey included all hospitals with acute adult coronary beds in England, Wales, Scotland and Northern Ireland. Two questionnaires in a single envelope were sent to the switchboard manager of each hospital with a request to send one of the questionnaires (A) to the manager in charge of acute services and the other (B) to the medical SHO on call that day for cardiac arrest: the hospital switchboard operators have the daily responsibility of contacting doctors to respond to cardiac arrest and were most likely to guarantee the questionnaire was received by the most appropriate doctor.

Results

Questionnaires were sent to 288 managers of acute services and 288 junior doctors in the 18 regional health authorities in England, Wales, Scotland and Northern Ireland. Answers were received from 190 managers (66%) and 189 doctors (66%).

Replies from managers’ questionnaires.

Questionnaires were addressed to the manager in charge of acute services and answered by a variety of respondents (Table 1).

Resuscitation officers

Only 42 of the 190 hospitals (22%) that replied had a full time resuscitation training officer in 1992, five years after the Royal College of Physicians' report. An additional 27 hospitals (14%) had a part time resuscitation training officer; either as a part time post alone, or jointly with another job (for example a senior sister on coronary care doing 20 hours per week of resuscitation training). The majority of hospitals (113) did not have a kind of resuscitation training officer. Lack of funding was the main reason offered by management in 43% of these hospitals. In 89% of regions most hospitals are without a resuscitation officer. In only one region did more than 50% of hospitals have a full time resuscitation training officer.

Most of the resuscitation training officers are nurses (80%); 15% are paramedics, and 5% are operating department assistants.

Resuscitation committees

The number of hospitals having a resuscitation committee was 138 (73% of replies). Hospitals with a resuscitation committee are more likely to have a resuscitation training officer; regional distribution of these hospitals can be seen in Table 4.

The composition of resuscitation committees varied but all contained medical staff, usually an anaesthetist (92%) and/or a physician/cardiologist (86%). Many resuscitation committees involved clinical nurses (65%), nursing managers, or nursing tutors (44%).
and resuscitation training officers (39%). Hospital managers (non-medical) were involved in 18% of resuscitation committees.

Replies to doctors' questionnaire

Questionnaires, sent via the hospital switchboard, were addressed to the medical SHO on the cardiac arrest team for that day. All doctors chosen to answer the questionnaire had to have worked in their hospital for at least three months, though as the questionnaires were sent in July 1992, most of them were likely to have been working in their hospital for 6 to 12 months.

CPR training

Of the 189 doctors who replied, 98 (52%) had received some training in CPR in the hospital in which they were now working. Of these doctors: 8% had been on advanced cardiopulmonary life support systems (ACLS) course, 8% had been on some other organised course (eg MRCP course), 4% had a lecture only, 9% had a lecture with demonstrations of CPR, 72% had a lecture, demonstration, and practice of CPR by the participants, and in 4% the form of training was not specified. A consultant, most commonly an anaesthetist, accident and emergency consultant, or general physician, provided most (72%) of this training. Thirty three per cent of doctors had been trained by a resuscitation training officer, and a small number by a junior doctor alone.

For most of the doctors who received no training in their hospital there was simply none available, but 19% could not attend organised training sessions where they were available due to their clinical commitments.

Only a very small number of these doctors (7%) felt that they had already had sufficient training, so had not attended organised training sessions.

When asked if there was a resuscitation training officer in their hospital, 69 doctors (37%) said there was, and the majority of them (44) had received some training from this resuscitation training officer. A

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Table 1. Respondents to managerial questionnaire

|        | n  | %  |
|--------|----|----|
| Doctors| 77 | 40 |
| Nurses | 40 | 22 |
| Managers| 38 | 20 |
| Resuscitation training officers| 24 | 13 |
| Others | 5  | 3  |
| Not known| 5  | 3  |

Mainly consultants in accident and emergency medicine, anaesthesia, cardiology and intensive care.

Table 2. Percentage of hospitals replying having neither full time nor part time resuscitation training officer

| Hospital Region                          | %   |
|------------------------------------------|-----|
| Post graduate teaching hospitals (2 hospitals only) | 100 |
| Ireland                                  | 84  |
| Scotland                                 | 79  |
| Yorkshire                                | 76  |
| Trent                                    | 69  |
| Mersey                                   | 66  |
| North West Thames                        | 66  |
| Northern                                 | 66  |
| North East Thames                        | 62  |
| South East Thames                        | 62  |
| West Midlands                            | 61  |
| South West Thames                        | 60  |
| East Anglia                              | 56  |
| Wales                                    | 54  |
| Wessex                                   | 50  |
| Oxford                                   | 50  |
| North Western                            | 46  |
| South Western                            | 22  |

Table 3. Percentage of hospitals replying who had a full time resuscitation training officer

| Hospital Region          | %   |
|--------------------------|-----|
| South Western            | 56  |
| South West Thames        | 40  |
| North East Thames        | 38  |
| South East Thames        | 38  |
| Mersey                   | 33  |
| Wales                    | 31  |
| North Western            | 27  |
| Oxford                   | 25  |
| Trent                    | 23  |
| Wessex                   | 20  |
| Yorkshire                | 19  |
| Scotland                 | 14  |
| East Anglia              | 11  |
| North West Thames        | 8   |
| Ireland                  | 8   |
| West Midlands            | 8   |
| Post graduate teaching hospitals | 0   |
| Northern region          | 0   |
number of doctors mentioned a consultant as resuscitation training officer in their hospital (these were excluded from the figures above) and the remainder of doctors did not know. Comparing these answers with those from the managers’ questionnaires, we know there was in fact a resuscitation training officer in a number of hospitals in which doctors did not know or said there was no resuscitation training officer. However, this was only a small number.

One quarter of doctors identified a resuscitation training room in their hospital.

**Testing CPR**

Only 60 doctors (32%) had been tested at their current hospital on their ability to resuscitate. The majority of doctors, even those who had had some instruction in CPR, had not been formally tested by that hospital on their ability to treat cardiac arrest adequately. Thirty per cent of doctors had never had their ability to resuscitate tested at any time, even as a student. Furthermore, only 51% of doctors who replied to the questionnaire had been tested on their ability to resuscitate at other hospitals. Several hospitals were repeatedly named by these doctors as having tested their ability to resuscitate. These hospitals can be seen in Table 5, a high proportion being London teaching hospitals.

Fifty per cent of doctors recognised their need for further training in resuscitation. Many of them had already had training but felt they needed more.

Of the total number of doctors answering the questionnaire, one half were currently studying for Membership of the Royal College of Physicians, one quarter had already passed this examination and one eighth were in a GP scheme.

**Discussion**

Cardiac arrest is one of the few occasions in medicine where the skills of the doctor who first attends will determine within minutes whether the patient lives or dies. The quality of the response is also likely to influence the quality of life that may follow. In response to public and professional concern about the ability of junior doctors to perform cardiopulmonary resuscitation, and in recognition of the importance of acquiring resuscitation skills when training to be a physician, the Royal College of Physicians of London made specific recommendations on opportunities and facilities for training [5]. In spite of these concerns, these recommendations have gone unheeded in many hospitals. The majority of hospitals in the UK still do not have a resuscitation training officer and 40% of those in post are only part time. More than a quarter of hospitals have failed to form a resuscitation committee to assess the outcome from cardiac arrest and monitor the skills and training of those responsible for this most challenging of medical emergencies.

Patients will be surprised and alarmed to know that only 52% of those primarily responsible for responding to them in hospital, should they suddenly collapse, will have received any training for this from that hospital and even fewer (32%) will have been tested on their resuscitation abilities. Moreover, of the doctors charged with reviving them, only 7% were confident that their training in resuscitation had been adequate.

Hospitals cannot assume that their junior doctors have received resuscitation training elsewhere. Thirty per cent of physicians on the cardiac arrest team had

### Table 4. Percentage of responding hospitals with a resuscitation committee

| Hospital                  | Percentage |
|---------------------------|------------|
| South West Thames         | 100        |
| Oxford                    | 100        |
| South East Thames         | 92         |
| North East Thames         | 92         |
| North Western             | 91         |
| Mersey                    | 89         |
| Trent                     | 85         |
| North West Thames         | 83         |
| South Western             | 78         |
| East Anglia               | 78         |
| Scotland                  | 71         |
| Wessex                    | 70         |
| Northern                  | 66         |
| West Midlands             | 62         |
| Wales                     | 62         |
| Yorkshire                 | 56         |
| Post Graduate Hospitals   | 50         |
| Northern Ireland          | 38         |

### Table 5. Hospitals which test ability to resuscitate

| Hospital                          | Number of times mentioned |
|-----------------------------------|---------------------------|
| Royal Free                        | 7                         |
| Guy’s                             | 6                         |
| Central Middlesex                 | 5                         |
| King’s College                    | 4                         |
| St Bartholomew’s                  | 3                         |
| Hull                              | 2                         |
| Leicester General                 | 2                         |
| St Mary’s London                  | 2                         |
| QE II Welwyn Garden City          | 2                         |
| Royal London                      | 2                         |
| Addenbrooke’s Cambridge           | 2                         |
| Derby Royal Infirmary             | 2                         |
| North Staffordshire City General  | 2                         |
never been tested on their ability to perform either basic or advanced CPR at any time in their undergraduate or postgraduate career.

There is no reason to believe that junior doctors are indifferent towards resuscitation training. Whilst this may be true of some, it is by no means true of all. Many junior doctors do want resuscitation training and the following are typical comments:

'I feel all junior doctors should have the opportunity to attend a formal CPR training programme and each hospital should have a fixed protocol.'

'It would definitely be useful to have periodic training and assessment even though I've already had good training and assessment in resuscitation.'

Many of the comments made reflect the doctors' desire not only for training, but also for periodic updates and assessment. There were no comments from doctors saying that they did not want any training.

Other comments received from consultants and senior nurses tend to illustrate their difficulties in trying to set up resuscitation training in their hospitals, eg:

'The dire need for a resuscitation training officer has been documented and accepted by the trust but finance is the main problem.'

The management of cardiac arrest in hospital remains largely in the hands of doctors-in-training. This alone remains a cause for concern but their inexperience continues to be compounded by a lack of opportunity and facilities for training. Lack of funds has been quoted as the principal reason. This must surely be unacceptable.

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