Teaching medical students

INTRODUCTION

After 9 years of teaching accident and emergency (A&E) medicine to medical students, I am convinced that we are not capitalizing on the potential benefits that could be accrued from the rise in status of our speciality by increased and improved undergraduate teaching.

I shall discuss our weaknesses and strengths, and follow these with a few proposals.

WEAKNESSES

Unpredictable workload

In general, we do not know the number and type of cases that will come through our doors at any given time, so there are frequent interruptions during bedside or small group teaching. I have tried to overcome the problem by:

Bedside teaching. Unlike other specialities, it is impossible to plan the teaching session. It would be nice to be able to have a brief look at a patient to confirm the history and clinical findings, and perhaps find other conditions in the same patient. Most days, the major influx of patients does not occur till 11.00 am, so it is possible to warn students on the previous evening that one of the common conditions listed in their handouts would be taught the next morning. When a suitable case presents, the charge nurse is informed, so that he/she understands that a cubicle will be occupied for half an hour. We start with one student taking the history, another the physical examination and so on, and use a problem-solving approach. We insist that they derive from the history and examination the problem as seen (i) by the patient, (ii) by the clinician and (iii) by the relatives. After that, we reassure the patient and conduct the discussion of differential diagnosis, investigations and therapy away from him. After establishing the diagnosis and course of action, students see how the doctor explains these to the patient. They confirm that the application of new learning supports understanding of concepts and principles, as well as remembering factual information (Schulman & Keisher, 1966; West, 1966).

Small group teaching: (1) Tutorials. Although A&E physicians can develop the conventional skills required in small group teaching (Cox & Ewan, 1982), they have to be prepared to be interrupted and taken away from the tutorial; therefore, they need a very much more facilitative type of leadership role. I solve this by getting students to help me
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prepare a map by writing the main topic in the centre, and suggesting clusters of themes and sub-topics, which are associated with the central topic (Heron, 1976). The map is then used as a framework for the tutorial and permits me to leave the room for up to 10 min to sort out a problem, leaving the students to continue with the tutorial.

(2) ‘Peer tuition’ or the tutorial paper. When we see an interesting case or X-ray, one of the students is asked to prepare the topic for a week and present the paper to be discussed by the group. Initially, this did not work well until we persuaded the others to also read the topic. We are now toying with the idea of doing a syndicate presentation, where the topic is divided into sections and each section is prepared and presented by one of the students.

Difficulty in maintaining drive

In our new speciality, colleagues feel embattled when they have to fight their corner, as there is often no one to share the clinical, administrative, research and teaching workload. When they have been neglectful of teaching students, they may delegate to intermediate staff, but they must set certain limits beyond which the teaching should not suffer.

Feedback

Students were asked to fill in an assessment form to obtain feedback (Roturn & Glasman, 1977). The forms were encouraging, but we are still unsure of how we fit into the curriculum (although students say there is very little overlap) and only vaguely aware of how colleagues and the medical school view our contribution.

Input into formal lectures, curricula and examinations

There was an unusual bonus when the affiliation of my hospital changed, causing me to make the effort of attempting to understand the working of the new medical school. The school has been helpful and cooperative in that I have been included in the list of formal lecturers and multiple choice questions relating to A&E medicine have been passed on for inclusion in computer banks. However, A&E medicine will only have a major impact when it gets academic posts established at all medical schools.

STRENGTHS

There are many teaching strengths which we can capitalize upon:

Plenty of clinical material

Assessment forms indicate that this was most appreciated by students. We like to remind them that, nationally, more patients are seen in A&E departments than in out-patient’s departments. I tell my staff that, if students appear uninterested, it has to be our fault.
Active involvement

Learning is increased when students are actively involved, rather than as passive onlookers (Hilgard & Bower, 1966; Rogers, 1969). They can undertake practical work like suturing, plastering, venepuncture and so forth, but must not be used as dogsbodies. Some of us run a post-basic nursing course and have excellent ground rules for training a nurse for her extended role; the same trainers and supervisors teach these practical tasks to medical undergraduates.

Students have always commented what a joy it is to be able to see a patient de novo and go through a decision-making process. They confirm that principles they discover themselves, are retained longer and used more effectively (Sahakian, 1976).

Number and variety of staff

There is a useful informality when senior house officers (SHOs) teach, because half of them have been to the same medical school, are doing their first post-registration job and can teach the differences between what was taught in medical school and the reality of medical practice. If teaching is to be a 24-h process, then SHOs must be involved. This can be balanced by formal type teaching by intermediate and senior staff. Our medical students do night duty on a one-in-four shift, because the spectrum of cases at night differs from those seen in office hours. They are attached to an ambulance crew for at least one night in their 4 weeks’ firm.

New speciality

All batches do a project relating to A&E work, which may be clinical, epidemiological or operational. It teaches them how to work as a group and investigate a problem. If a project has been well done, they are encouraged to continue and present it as a ‘Path. Project’. At St Mary’s Hospital Medical School ‘Path. Projects’ are done by all students before their final examination. Our last batch has suggested ongoing prospective trials passed on from one batch to the next.

Established teaching

Students come along to the tutorials and lectures for the SHOs and nurses. They seem to enjoy the variety of teaching methods and the different levels of teaching. They help with the radiological units in the Department and appreciate being taught radiodiagnostic skills by a clinician. It is gratifying to see them become quite good at pattern recognition and analytical radio-diagnosis after just 4 weeks.

PROPOSALS FOR CHANGE

B.A.T.A.E.M.

If A&E medicine is to make any significant headway, it needs an organization of teachers of emergency medicine along the lines of S.T.E.M. in the United States. It has
been proposed that we call it B.A.T.A.E.M. (British Association of Teachers of Accident and Emergency Medicine). We could learn from each other and derive mutual support. Such a group would help obtain greater influence on curriculum committees and eventually lobby at University level after fielding candidates for election.

**Academic posts**

The time has surely come to establish professorial posts which are well supported by senior lecturers and lecturers.

**Minimum length of accident and emergency firm**

Many students have said how much they appreciated learning the skill of rapid assessment and have often suggested taking 2 weeks from a junior firm to make the A&E attachment a minimum of 6 weeks.

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**REFERENCES**


Rogers C. (1969) *Freedom to Learn*. Chas, E. Merrill, Columbus.


