AN EDUCATIONAL SERIES

Clinical teaching in emergency medicine: the board round at Hope Hospital emergency department

S Carley, H Morris, D Kilroy

Emerg Med J 2007;24:659–661. doi: 10.1136/emj.2005.033811

This article discusses the educational value of the “board round”, a clinical teaching forum introduced at Hope Hospital, Manchester, UK. At midday on weekdays all available consultants and middle grade doctors, and any other staff who can attend, meet to discuss a case selected from the patients currently in the department. As several experienced clinicians are available to discuss a clinical problem, the round allows a broad debate during which the merits of several management options are discussed. In addition, attending a board round addresses in part the concerns which senior clinicians may have about the balance of service delivery and protected teaching time. The paper describes several other advantages of this method of teaching, which has been adopted by other hospitals in the region.

Finding “the time to teach” has become a relentless issue in the pressured arena of the emergency department. The educational constraints of meeting service targets are well recognised.¹

Only fools learn from their own mistakes; a wise person learns from the mistakes of others.
Traditional proverb

It has been established that hospital consultants rate case discussion with colleagues as an enjoyable and stimulating aspect of their continuing professional development.² Also, there is little dispute that the use of situated case based learning is a powerful teaching tool for junior staff in the emergency department. Within the emergency department, shift patterns dictate that trainees are working with no direct clinical supervision for significant periods of time. Any initiative that brings staff together for shared learning is therefore worthy of consideration. “Teaching One To One” (TONGO) has been advocated as a means for trainees and consultants to learn from one another in the clinical environment. Our experience of TONGO has been positive and we also advocate it as a tool for clinical teaching. However, it does have real and perceived limitations. In particular, it is labour intensive and both trainees and trainers have often commented that it does not happen as often as it should.

The “board round” at Hope Hospital, Manchester, UK, was introduced in an attempt to provide a clinical teaching forum for senior and junior staff to discuss and critique the clinical care

of patients in the department at that time. We report our experiences of the “board round”.

THE BOARD ROUND

At midday on weekdays all available consultants and middle grade doctors meet at the majors end of the department. Midday was chosen as a second consultant and second middle grade doctor start at this time, as a result a minimum of four senior doctors are available. They are usually joined by other senior physicians who may be designated for administrative duties on that day. Although primarily aimed at the consultant and middle grade staff the round can include junior and senior house surgeons, nursing staff, sessional accident and emergency staff (for example, general practitioners), and representatives from inpatient hospital teams. An average of eight people attend. On rare occasions the meeting may be postponed due to the clinical pressures of the day.

All participants are encouraged to find a case from the patients in the department. On occasion, a case from a previous day is brought for discussion or further information from a previously presented patient is presented. There are no strict guidelines about what may be discussed although issues generally fall into three main areas:

- A current clinical problem about which the presenting clinician is seeking advice as to how to proceed (What do I do today?).
- An interesting or unusual case to share (You'll never guess what I saw!).
- A review of standard practice (Does everyone do this the way I do?).

The cases are supported using digitally acquired clinical images, electrocardiograms, radiological images, etc. We encourage participants to question all aspects of their clinical practice. For example, in patients with anterior shoulder dislocation the round has discussed (on separate occasions) reduction techniques, sedation techniques, immobilisation methods, sedation guidelines, discharge criteria, surgical anatomy, and the differential management of associated tuberosity fractures. The round is non-hierarchical as all participants are encouraged to share their opinions regarding patient management.

A number of outcomes can result from discussion:

- a change in clinical management
- a technique or skill may be demonstrated
- an individual may be tasked to find further information and bring this back to a subsequent round

See end of article for authors' affiliations

Correspondence to:
S Carley, Department of
Emergency Medicine,
Manchester Royal
Infirmary, Oxford Road,
Manchester M13 9WL, UK;
simon.carley@cmmc.nhs.uk

Accepted for publication
3 January 2006

Table 1 Seven days of board rounds

Day	No. of people	Clinical case	Point of discussion	Outcome
1	3 cons	Massive mixed OD in severely disabled elderly man; persistent hypotension and acidosis unresponsive to therapy	Potential benefits of ICU care; withdrawal of treatment in fatal OD; significance of paracetamol levels >800 mg/dl. Acidosis in paracetamol OD	Discussion of points; further analysis of acid base status and toxicology led to non-ICU management
	4 middle	25 year old man with persistent chronic wrist pain	X ray findings	Appearances of Kienbock's disease of the lunate; prognosis and potential surgical management discussed
2	1 nurse clinician 3 cons	Patient with anterior MI; had fallen and sustained head injury when initially collapsed	Does the head injury mean that thrombolysis (or other anti-clotting agents) is contraindicated?	Risk-benefits discussed; agreed that CT necessary before thrombolysis; noted that angioplasty has similar risks to thrombolysis
3	3 middle 2 cons	Man in 50s recalled for abnormal chest x ray finding; patient was upset and abusive to staff when initially phoned and in department	How to handle difficult patients; causes of raised hemidiaphragm	Discussion led by middle grade and GP regarding interpersonal communication skills and techniques for de-escalation; causes discussed; peritoneal reflections of the liver revised
4	4 middle 1 SHO 1 sessional GP 5 cons	Elderly collapsed patient; GCS 15 at scene, 7 on arrival; known COPD; ABGs show CO ₂ of 105 mm Hg (14 kPa). High bicarbonates	Use of O ₂ in COPD patients; management of CO ₂ narcosis	Hospital guidelines for COPD reviewed; patient placed on BiPAP following discussion; procedure and initial settings for BiPAP reviewed
	2 middle	Lady in 60s presented with GCS 7?; fitted; biochemistry abnormal with Na 97, K 1.7, U 1.1	Causes, management of hyponatraemia; use of high strength saline; pontine myelinosis	Osmolarity gap requested; urine and plasma osmolality requested – which excluded SIADH; final diagnosis of polydipsia; unanswered question – mechanism of myelinosis – is it change in osmolality or change from high osmolality that causes the problem
5	1 nurse 2 cons	COPD case with pneumothorax	Can you differentiate bullae from pneumothorax on chest x ray? Small or large drain for this patient?	Difficult to differentiate but indicators discussed; larger drain inserted (size 20) in case suction needed
6	3 middle 2 cons	Female patient in 20s with known perianal Crohn's; previous abscesses and fistulae; presented with pain and induration around anus; no abscess as yet	Inpatient IV therapy or home on oral antibiotics?	Admitted for IV antibiotics; USS of perineum suggested to look for deep collection
7	2 middle	Female in 60s with new onset SVT and moderately severe COPD	Vagal manoeuvres; concerns regarding the use of adenosine in COPD	Vagal manoeuvres unsuccessful; adenosine successfully used to terminate SVT
	3 cons	Patient with bursitis. Plain x ray report suggested need for USS	Whether if Radiology suggested it needed to be done	USS not done as clinically not indicated
	4 middle	Known alcoholic with several previous attendances with fits; presented with headache post fit. Normal neurological examination	Whether CT indicated; last CT was done 2 years previously	CT showed tumour of frontal lobe; need to keep open mind with regular patients reiterated
	1 nurse clinician	Teenager with paracetamol OD presenting at 8 hours post ingestion. Parvolex started but then levels below treatment line	Does Parvolex need to be continued once started even if levels below treatment line?	Parvolex stopped as no longer indicated

BiPAP, bilevel positive airway pressure; cons, consultant; CT, computed tomography; COPD, chronic obstructive pulmonary disease; GCS, Glasgow Coma Scale; ICU, intensive care unit; IV, intravenous; MI, myocardial infarction; OD, overdose; SIADH, syndrome of inappropriate antidiuretic hormone secretion; SVT, supraventricular tachycardia; USS, ultrasound.

- a best evidence topic (BET) question may arise
- a written policy may be formulated (for example, management of patients who self-discharge following self-harm).

Table 1 shows a week's worth of activity at the board round. The diversity of cases and outcomes is clearly demonstrated. The round usually takes 20 minutes and is strictly limited to 30 minutes. Following initial trials the board round has now been successfully implemented at other hospitals in northwest UK.

DISCUSSION

We believe that the board round has been an extremely effective method of teaching for several reasons. Firstly, it occurs during normal working hours and generally deals with current patients in the department. It is therefore perceived as

an integral part of the working day rather than as an optional extra. Changes in treatment are demonstrable in real time on real clinical problems. This reinforces any new information learned and encourages all doctors to actively participate. Taking part in a board round addresses in part the concerns which senior clinicians may have about the balance of service delivery and protected teaching time³ by combining the two, since the decisions made during the round may enhance the care of a patient in "real time". Secondly, several experienced clinicians tackle the clinical problem. This allows a broad debate to occur during which the merits of several management options are discussed. Finally, the participation of non-shop floor consultants allows them to be involved in clinical problems on a daily basis thereby maintaining their exposure to a wide range of problems.

Teaching in this way requires everyone to be open about their clinical decisions and to accept critique and challenge to their traditional practices. At times this can be difficult, particularly if the critique comes from a junior colleague. It is incumbent on the senior doctors to facilitate and encourage juniors to question their own practice as by doing this they demonstrate the need for lifelong learning. Developing the skills required to lead the board round and draw out the key learning points forms a key element of training as a clinical educator,⁴ since it combines aspects of small-group discussion, lecture delivery, and critique within a short period of time. The discussions allow different physicians to handle issues if there is clinical uncertainty, doubt, or error. It is an ideal opportunity for seniors to explicitly demonstrate their own practice and therefore to act as role models to other members of the clinical team.

By involving all available grades of staff in the shared discussion of a clinical problem, the board round fulfils the basic function of letting everyone “get together” with other colleagues, if only for a brief time. The way in which this facilitates learning is in itself invaluable. Having the opportunity to practise the skills of a focused presentation to colleagues is a key skill in professional development.⁵

Use of the board round could form a stimulating and rewarding part of the daily work in many emergency departments: it can be run with as few or as many staff as are available on a given day.

The educational principles upon which it is based are long-standing and have stood the test of time—indeed, the wheel of reform is slowly bringing us back to the central role of “traditional” patient centered education once again.⁶

Authors' affiliations

S Carley, Department of Emergency Medicine, Manchester Royal Infirmary, Manchester, UK

H Morris, Department of Emergency Medicine and Critical Care Medicine, Hope Hospital, Manchester, UK

D Kilroy, Department of Emergency Medicine, Stepping Hill Hospital, Stockport, UK

REFERENCES

- 1 **Prideaux D**, Alexander H, Bowers A, *et al.* Clinical teaching: maintaining an educational role for doctors in the new health care environment. *Med Educ* 2000;**34**:820–6.
- 2 **Fletcher P**. Continuing medical education in a district general hospital. *Med Educ* 2001;**35**:967–72.
- 3 **Seabrook MA**. Medical teachers' concerns about the clinical teaching context. *Med Educ* 2003;**37**:213–22.
- 4 **Hesketh EA**, Bagnall G, Buckley EG, *et al.* A framework for developing excellence as a clinical educator. *Med Educ* 2001;**35**:555–64.
- 5 **Manzar S**. Introducing peer evaluation during tutorial presentation. *Med Educ* 2004;**38**:1188–9.
- 6 **Glick TH**, Moore GT. Time to learn: the outlook for renewal of patient-centred education in the digital age. *Med Educ* 2001;**35**:505–9.