LETTERS

Is morphine indicated in acute pulmonary oedema?

Recent referrals to our intensive care unit have led us to question the indication for morphine in acute pulmonary oedema. Acute pulmonary oedema is a common, life-threatening emergency. Appropriate prompt therapy can provide rapid improvements in symptoms by reducing preload and afterload, or increasing myocardial contractility. Oxygen, loop diuretics, and nitrates are well-established therapeutic options. Most textbooks of acute medicine also recommend that intravenous morphine (or dihydrocodeinone in the UK) is given to "cause systemic vasodilatation and sedate the patient", despite the absence of evidence supporting its efficacy. Treatment with morphine may be associated with respiratory depression in an already hypoxic patient, potentially exacerbating cardiac insufficiency. Respiratory failure secondary to opiates in pulmonary oedema has previously been reported elsewhere.

In vivo experiments have confirmed that intravenous morphine results in significant peripheral vasodilatation and reduction in systemic vascular resistance. Further studies reveal that these effects are mediated via histamine receptors rather than opiate receptors and directly correlate with the rise in plasma histamine concentrations associated with morphine administration.

In view of the potential iatrogenic morbidity and non-specific pharmacological action of morphine in acute pulmonary oedema, we question the recommendation of its use. There are more potent vasodilators available without the side-effects of respiratory depression. We suggest that it is only used in acute pulmonary oedema, with caution, when analgesia is required in association with acute myocardial infarction. The use of titrated intravenous diuretics and nitrates to promote vasodilatation is preferable.

Matthew Hall, Richard Griffiths, Bal Appadoo
Peterborough District Hospitals, Cambs, UK

Correspondence to: Matthew Hall; drmwarthall@hotmail.com
doi: 10.1136/emj.2003.011460

References

Emergency rooms differ in the detail

I read with interest the article by Schull.1 I have recently moved to Trinidad and find that the problems in A&E are the same as the UK: overcrowding, waiting times, lack of facilities of trained staff. Each of these problems differ in detail.

Overcrowding and waiting times are less severe in Trinidad than the UK. In my department (a paediatric facility seeing 40,000 patients per year) our average time to see a doctor is less than half an hour. Is this a reflection of good practice? In most departments in Trinidad, staffing is at a junior level. Doctors in the Emergency Room provide limited care for patients before referral. This leads to shorter waiting times, but patients suffer through multiple referrals before receiving definitive care. This is more in the adult departments, where the average waiting time is less than that quoted, with the admission rate being higher (40% for adult departments compared to 10% for the children's hospital). Quicker care is not necessarily better care.

The availability and use of inpatient facilities has an impact on throughput. In most departments in Trinidad, overcrowding on the wards is a part of life. Space is 'made' on wards by accommodating patients two to a bed, or making room for trolleys. The only area in which this policy is not feasible is ICU. The availability of ICU beds is much less than in developing countries and threshold for admission much higher.

Finally, staffing is a problem. Juniors with no specific interest in Emergency Medicine staff most departments. An audit of our paediatric emergency room suggests that senior staff can reduce both the admission rate and waiting time, but patients stay longer while receiving more comprehensive care.

In summary, the problems of all Emergency Rooms are similar, but vary in detail. Achieving better waiting times in the Emergency Room may be at the expense of the quality of care in the entire system, if managed in isolation.

Sammy
Department of Clinical Surgical Science, University of the West Indies, Trinidad and Tobago;
psam@tstt.net.tt

References
3 Yell PM, Blockers. Medicine 1999;27(4):27

Survey of blood gas interpretation

Hospital clinicians frequently request arterial blood gas (ABG) analysis to aid in the diagnosis and management of patients. We carried out a one-day survey to see how well ABG's were interpreted. We asked 66 participants to complete a written questionnaire during their normal working duties. No one declined to take part. Respondents were asked to give the normal ranges for ABG parameters. Five different ABG results were presented and respondents asked to describe (free text) the findings and to give any number
It seemed at first sight to be a very useful collection of data but on closer examination it was most disappointing. The laboratory and other normal values are not quoted in SI units. The American values for things like blood glucose will be of little value to those working in the UK and much of the rest of the world.

Much of the detail is specific to the hospital concerned giving details of the colour of top for the blood sample required for each parameter. The section on blood transfusion has an administration check list, which has details that are specific to the procedures of the hospital concerned and are not generic.

There is a whole section on mnemonics and other aide memoirs. A few of these could be helpful, in the majority I would find easier to remember the lists rather than the mnemonic.

There are old favourites like C3,4,5, keeps the diaphragm alive and PEA ITTT VOD being the differential cause of pulseless electrical activity, namely; Potassium, Embolus, Acido-sis, Ischaemia, Temperature, Tamponade, Tension pneumothorax, Volume Oxygen, Drugs which I personally find most unhelpful.

My overall impression was sadly, that there are other similar products on the market which are more user friendly, and which have more material relevant to the field without confusion with American normal values.

K Hines
Eastwood Medical Centre, London;
ken.hines@gp-86641.nhs.uk

Forensic Medicine: clinical and pathological aspects


do:10.1136/emj.2003.007492

Critical care transport field guide


This small pocket book measures only 15 cm by 7.5 cm and is intended as a pocket reference book. It is designed to assist the reader in recalling knowledge acquired or confirmed from other sources.

I am afraid I found it quite confusing. The pages are printed in both landscape and portrait format which means having to constantly re-orientate the book. It is divided into 25 sections, covering everything from intra aortic balloon pumps, drug incompatibilities, and burns management.

BOOK REVIEWS

Critical care transport field guide


This small pocket book measures only 15 cm by 7.5 cm and is intended as a pocket reference book. It is designed to assist the reader in recalling knowledge acquired or confirmed from other sources.

I am afraid I found it quite confusing. The pages are printed in both landscape and portrait format which means having to constantly re-orientate the book. It is divided into 25 sections, covering everything from intra aortic balloon pumps, drug incompatibilities, and burns management.

ECGs for the emergency physician


do:10.1136/emj.2003.007492

"Can you just check this ECG?" is one of the most frequently asked questions in the Emergency Department. ECGs for the Emergency Physician will help you become an expert at answering ECG queries: a core skill for ED physicians. Mattu and Brady have put together 200 ECGs that illustrate virtual all electrocardiographic diagnoses. This is achieved in a self-assessment format that is instructive and interesting. The first hundred ECGs are "easier" and are useful revision for SHOs preparing for the MFAEM exam, or SpR looking to improve their ECG diagnostic skills. The second hundred are certainly more "challenging" as the authors suggest. I recommend these as continuing education for Emergency Medicine specialists: no matter how well honed your skills, there is something here that will make you stop, think and learn.

An A4-sized book, having two ECGs per page allows good reproduction of the data, and the answers are remote from the cases, so that a quick look is deliberately made more difficult. The answers are correspondingly clear, and informative. The only impression that the authors regularly examine ECGs in their EDs. Of comparable texts, this book is the most relevant to ED physicians. Basic knowledge is assumed though: this is not a text for medical students. I look forward to learning if BMJ books plan ABGs for Emergency Physician or CXRs for the Emergency Physician, to complete the core data interpretation skills needed by ED physicians.

It is hard to find fault with this book, except to say that to read the lot in one go you will have dreaming of PR segment abnormalities and Brugada syndromes.

After you have read this book, I suspect the next person to ask you to "Just check this ECG" will be overwhelmed by your knowledge!

A Fletcher
Northern General Hospital, Sheffield;
alan.fletcher@supanet.com

CORRECTION

The journal has been notified of an error in the paper entitled Simple monographs to calculate sample size in diagnostic studies (Emerg Med J 2005;22:180–1). The error occurs on the example line on the specificity nomogram (fig 1 part B). A correct version of this figure is available at http://emjonline.com/supplemental. It should be noted that the error only affects the example and not the underlying nomogram itself.

J Wyatts
A&E consultant and Honorary Fellow in Forensic Medicine;
jonathan.wyatt@cht.comwall.nhs.uk