Calcium for hyperkalaemia in digoxin toxicity

In their article on the management of hyperkalaemia Dr Ahee and Dr Crowe recommend, “hyperkalaemic patients taking digoxin should be given calcium as a slow infusion over 20 to 30 minutes”. I would caution against this advice. Hyperkalaemia is usual in acute digoxin toxicity, and not uncommon in chronic digoxin poisoning. Additionally, because it undergoes significant renal clearance, digoxin toxicity is probable in a patient with acute renal failure. Therefore, patients taking digoxin who present with ECG changes and hyperkalaemia should be considered digi-toxic.

It is widely held (though at times hotly debated") that calcium administered in the setting of digoxin toxicity will probably induce arrhythmia or cardiac arrest. Immediate reversal of digoxin toxicity with digoxin antibody (Fab) fragments will rapidly reduce potential in the setting of hyperkalaemia to that of calcium on the trans-membrane effect.

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What about patient satisfaction following acute ankle sprains?

Investigation of the effectiveness of double Tubigrip for acute grade 1 and 2 ankle sprains through a randomised controlled trial is commendable. However, I feel compelled to comment on aspects of this study. It is interesting that 85 (17.5%) of the 485 patients approached to take part in this study expressed a treatment preference and therefore were not randomised. Given that only 197 patients completed the study, the 85 expressing a treatment preference is equivalent to a third arm of the study. The implication of their reluctance is that patients attending the accident and emergency (A&E) department after ankle injuries expect and want treatment. This confirms what is a commonly held belief in the A&E department—that a double Tubigrip, or any other treatment option is supportive to the patient. While this support may not be of a physical nature, it probably leads to improved patient satisfaction. To that end, I would suggest that the addition of a “patient preference” limb to the study would be as important as the existing two limbs.

It is equally interesting that the authors did not measure patient satisfaction as an outcome in this study. One important facet of any clinical trial is that it is acceptable to patients—and the application or not of a double Tubigrip after ankle sprain is no exception. Although the authors found the application of a double Tubigrip did not shorten recovery time or number of days off work, it would be helpful to identify whether patient preference and satisfaction would have affected outcome, both in terms of actual recovery time, but also during the recovery period itself.

While in agreement that patient education might reduce reliance on this type of treatment, in the context of a busy A&E department, this may not be practical, and the current approach probably provides efficient patient satisfaction.

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References

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Log on to our web site (www.emjonline.com), find the paper that interests you, and send your response via email by clicking on the “eLetters” option in the box at the top right hand corner. Providing it isn’t libellous or obscene, it will be posted within seven days. You can retrieve it by clicking on “read eLetters” on our homepage. The editors will decide as before whether to also publish it in a future paper issue.
Two cases of near asphyxiation in children, using non-releasing plastic garden ties

We read with interest the emergency casebook featuring two cases of near asphyxiation. It is our practice to admit all cases of near strangulation who present early with signs of symptoms in keeping with the history for a period of observation. We adopt this policy on the basis that it is possible to miss occult, significant upper airway pathology in victims of near strangulation and airway obstruction can present as late as 36 hours after such an event. In addition it is possible to overlook visual impairment in such patients as subtle changes in visual acuity may not initially be apparent. Cases of near asphyxiation in children are not widely reported in the literature and therefore it is difficult to have an evidence based admission/discharge policy. Are we being over cautious?

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References


Authors’ reply

We agree entirely, the experience with asphyxiation in children is limited and therefore there is no evidence base as to what is the most appropriate admission/discharge policy. At the Birmingham Children’s Hospital we are most appropriate admission/discharge policy. There is no evidence base as to what is the phyxiation in children is limited and therefore we agree entirely, the experience with as–

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References


Journal clubs in clinical medicine

Journal clubs in clinical medicine have long been recognised as a useful tool for keeping up to date with new developments. More recently they have been used as a tool for the teaching of critical appraisal, which for emergency medicine trainees in the UK is an important part of their fellowship examination. Since the inception of our journal club we have noticed a subtle change in both the quality and quantity of papers in the journals that we chose to review. This made it more difficult to combine both the educational value of critical appraisal and keeping up to date with the relevant advances in our specialty so that we can apply this to our practice of evidence based medicine.

To address this we undertook to review our choice of journals to try to increase our yield of relevant articles. After finding a complete journal list from Medline a consensus opinion was reached on the basis of relevance to practice, past experience of quality of papers, and personal choice. The number of times per year that the journals, or groups of journals, are reviewed depends on the number of issues per year and the likelihood of finding papers relevant to emergency medicine in them.

The complete list of journals and their review rates is shown in table 1. We believe that all departments with a journal club should regularly revise their selection of journals in order to increase the value of this important educational process.

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Correspondence to: Professor K. Mackway-Jones
The PAT is designed specifically for use by A&E practitioners, to detect hazardous as well as dependent drinkers. Detection is not indiscriminate but guided by “The Top Ten” presenting conditions, whereby screening is targeted and most effective. Furthermore, question 3 of the PAT—“do you feel your current attendance at A&E is related to alcohol?”—helps reinforce the idea that their presenting problem may be alcohol related, even if the patient were to refuse help on this occasion.

As the number of A&E departments that work with alcohol health workers increases it is hoped that the worth of the PAT will be further recognised.

**References**


**A misdiagnosed fracture of the calcaneum**

I am writing in response to the interesting case report of “A misdiagnosed fracture of the calcaneum.” The author, having accepted the original diagnosis of partial Achilles tendon rupture was incorrect, suggested on expanding the criteria for radiological assessment in doubtful clinical cases. It was obvious from the history that the injury was sustained as a result of minimal trauma, in a patient with significant risk factors for osteoporosis. Coupled with an examination finding of a palpable gap in the Achilles tendon/calcaneal complex, the incorrect diagnosis was made solely on a negative Simmonds test. With these clinical findings and the published lateral radiograph of the calcaneum, I do not accept the original opinion of a negative Simmonds test. Simmonds’ or similarly Thompson’s test, has been shown to be a reliable sign for complete Achilles disruption, with a diagnosis of partial rupture being a rare occurrence.

The lesson to be learnt from this case is not how to increase our diagnostic accuracy with the CAGE or any test, but the importance of taking a good history. The last thing we need is to have a very low pick up rate, which was one of the reasons behind the development of the PAT. Our recent study, using the PAT, had an overall detection rate of 6.8% rising to 9.8% in the third month after intensive audit and feedback.

Four features could explain the discrepancy:

1. In the PAT study only 61.1% of patients had presenting complaints mandating the test. The detection rate for this group (in month 3) was 14.3%.
2. In this group, 62 patients of (286) were missed—that is, did not have the test applied.
3. The Hadida et al study identified a number of missers by “staff assessment”.
4. The basis of this assessment is unclear. Two questions are paramount: (a) Was an alcohol history taken? (b) Did the patient agree with the doctor/nurse’s assessment?

Studies suggest the CAGE detects dependent rather than hazardous drinkers, a point rightly discussed by Hadida et al, and emphasised elsewhere. Compared with dependent drinkers, hazardous drinkers (earlier on in their drinking history) are more likely to respond to brief interventions.

**Table 1 Frequency of journal review**

<table>
<thead>
<tr>
<th>Journal</th>
<th>Reviews per year</th>
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<tbody>
<tr>
<td>Academic Emergency Medicine</td>
<td>4</td>
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<tr>
<td>Annals of Emergency Medicine</td>
<td>4</td>
</tr>
<tr>
<td>British Medical Journal</td>
<td>4</td>
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<tr>
<td>Lancet</td>
<td>4</td>
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<tr>
<td>Medical journals (Archives of Internal Medicine, Annals of Internal Medicine, Clinical Medicine, Chest, Cardiology, Circulation, etc)</td>
<td>4</td>
</tr>
<tr>
<td>New England Journal of Medicine</td>
<td>4</td>
</tr>
<tr>
<td>Paediatric Journals (Archives of Disease in Childhood, Pediatric Emergency Care, etc)</td>
<td>4</td>
</tr>
<tr>
<td>American Journal of Emergency Medicine</td>
<td>2</td>
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<tr>
<td>Emergency Medicine Journal</td>
<td>2</td>
</tr>
<tr>
<td>JAMA</td>
<td>1</td>
</tr>
<tr>
<td>Intensive care journals (Anaesthesia and Intensive Care, Critical Care Medicine, Intensive Care Medicine, etc)</td>
<td>2</td>
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<tr>
<td>Journal of Trauma</td>
<td>2</td>
</tr>
<tr>
<td>Resuscitation</td>
<td>1</td>
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<tr>
<td>Anaesthetic journals (Anaesthesia, Anaesthesia and Intensive Care, British Journal of Anaesthesia, etc)</td>
<td>1</td>
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<tr>
<td>Burns</td>
<td>1</td>
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<tr>
<td>European Journal of Emergency Medicine</td>
<td>1</td>
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<tr>
<td>Injury</td>
<td>1</td>
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<tr>
<td>Injury Prevention</td>
<td>1</td>
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<tr>
<td>Nursing journals (Accident and Emergency Nursing, Emergency Nurse, Journal of Emergency Nursing, etc)</td>
<td>1</td>
</tr>
<tr>
<td>Sports journals (American Journal of Sports Medicine, British Journal of Sports Medicine, etc)</td>
<td>1</td>
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**References**


**Authors’ reply**

We thank Huntley and colleagues for their comments on our paper. They make the point that the Paddington Alcohol Test is a better instrument for screening for alcohol problems in the emergency department than the CAGE. We would not take issue with this.

The main aim of our study was not to investigate the sensitivity and specificity
different screening tests, but rather to show the feasibility of screening high proportions of patients as a first step towards intervention. We successfully screened 413 of 429 patients (96%), a much higher proportion than other studies. As Huntley et al point out, this may reflect the fact that we effectively had an extra member of staff to run the screening. In addition we chose to recruit a representative flow sample of patients rather than consecutive attenders.

A further aim of our study was to ascertain whether different screening instruments identified different groups of patients. Our results suggested that they did, and we suspect that this would have been the case regardless of the precise screening instrument used in the study. The main point is that patients presenting to the emergency department with alcohol problems are a complex and heterogeneous group. Blanket approaches to treatment are unlikely to work and we need to target specific interventions to those patients who might most benefit.

As regards assessment tools, a brief alcohol history was taken by the researcher interviewing the patient. The staff assessment consisted simply of the interviewer asking the member of emergency department staff who had seen the patient whether they thought the patient was alcohol related. The patient agreed with the staff assessment in just over one third of cases (29 of 76). There was a higher level of agreement between the patient and the CAGE assessment, with agreement in two thirds of cases (49 of 75). There was a higher level of agreement between the patient and the CAGE assessment, with agreement in two thirds of cases (49 of 75). We would strongly support the use of such tools as the PAT and the CAGE to screen for alcohol problems in the emergency department. However, for this to be a useful process all emergency department attenders need to be screened. Screening programmes that miss significant numbers of patients are unlikely to be worthwhile.

**BOOK REVIEWS**

**Advanced paediatric life support, 3rd edn**


The Advanced Paediatric Life Support manual was born in the early 1990s. As with all newborns, it was difficult to tell how it would develop. However, its parents hoped that it would develop into a practically widely used entity. As a candidate on the first Manchester APLS course in 1992, the manual existed as a series of handouts from various paediatric specialists. Many met the aims of being practical, while others were too inclusive. The Manchester APLS manual first spoke to the world in 1993. Its highly practical approach proved to be extremely popular. Therefore, building on the feedback from the Advanced Paediatric Life Support Courses the manual began to walk with the publication of its second edition in 1997.

The manual is now ready to start school and interact with other organisations. The 3rd edition has affiliation with the European Resuscitation Council, the Resuscitation Council of South Africa and Australian Advanced Paediatric Life Support Course. This latest edition has undergone some refinement. The initial two parts of the manual have had only minimal revision bringing them into line with current resuscitation practice and add further practical advice such as the use of semi-automatic defibrillators in children. The main revision has been in the seriously ill child section. Chapter headings have been changed to reflect the presenting problem of children. Layout and presentation of this section has changed dramatically.

The final sections on trauma and practical procedures have had only minimal alterations. It is noteworthy that with the affiliation to Australia, an additional appendix has been added dealing with australasia.

In general terms this continues to be an excellent practical manual for resuscitation of children in the first hour. I have frequently been faced with junior doctors in the resuscitation room of our local hospital with the APLS manual open correcting my actions!

There are some disappointments with the new text. As with a child starting school, there is an inordinate amount of spelling and grammatical errors contained within the new sections. While these seldom directly affect the understanding of the manual, they are extremely irritating. I have mixed feelings about the revision to the serious illness section. While there is much more information contained within the chapters compared with the 2nd edition, the revisions have made the chapters less easy to read and more like a standard textbook. There is also an excessive amount of repetition in each of the chapters.

However, there are minor quibbles in a text which has become the gold standard for paediatric resuscitation in the UK. The strength of the APLS manual has been that it is available to buy without actually undertaking the course. It is also continually updated by feedback from individuals undertaking these courses. The manual will continue to grow and reflect changing patterns of care in paediatric emergencies. Long may it continue.

**Save lives, save limbs**


“Save lives save limbs” by Hans Husum and his colleagues is a book that is attractive, full of information, and, although at times it reads like a heart tugging novel, it retains a high educational value. In a concise and well illustrated manner the book describes the total care of the victims of anti-personnel weapons. It should appeal to everyone interested in this trauma and is, in my opinion, written by those who find themselves working outside the luxurious resources of Western hospitals. The authors have substantial experience of working in adversity and they try to offer a solution to the inadequate resources usually found where most of these injuries occur.

It begins with a well illustrated description of the types of mines and the injuries they cause. The description of the minefields—a vital but common form of lethal trash.

ATLS techniques are described in detail and there is an excellent theme of damage control in trauma care. Technical details are supported by the simple relate that trauma patients can learn the basic techniques of life and limb preservation and once learnt it is our duty to pass on the knowledge. The simple statements and clear illustrations, often in cartoon form, prove that the authors themselves support this ideal and urge the concept of the “Village University”.

There is an academic quality to this book as well as practical advice on initial care, surgical techniques, anaesthesia, and nutrition. The physiological importance of fear is emphasised with an example of how to calm a patient while organising their removal from a minefield—a vital but common form of prehospital care in the real world. Every subject is illustrated by, inspiring, examples of ordinary people—some qualified in medicine or nursing and others not—who have saved life and limbs by using their skills.

Trauma specialists are no use if they are three days travel away from the casualty. The possession of higher surgical qualifications at a distance count for nothing compared with limited but immediately. An impressive proof of this fact is the use of limited laparotomy when isolated from a major hospital. The book describes how to stop bleeding and leave the complex visceral repair to the “experts” after transfer. There is an excellent example of an Afghan nurse successfully undertaking imperative “damage control” laparotomy for intra-abdominal bleeding; movement of the casualty to a hospital days away is possible because of the likelihood of aerial fighter attack during daylight hours! Quite possibly this type of treatment would lead to a reduction in the incidence of the increasingly recognised “abdominal compartment syndrome”.

Very few engaged in trauma care would fail to gain some new knowledge or insight from this excellent, “one sitting” read. Despite its simple format the book is an excellent text for UK trainees and demonstrates universally applicable methods while using common sense to underline theory.

The book confirms that “knowledge is power” especially when it is shared. It is
obviously aimed at developing countries but I would recommend that this book find a place in all NHS hospital libraries. Perhaps when junior doctors in the United Kingdom are feeling overworked and consultants believe that they are underpaid it would lead them to ponder on their good fortune.  

J P Beavis

Key topics in accident and emergency medicine, 2nd edn


This is the second edition of a book that will be already familiar to many trainees and consultants in emergency medicine. Speaking from personal experience this excellent text book indexed related topics are given at the end of each chapter including web site addresses and many in A&E will be relatively unfamiliar to emergency practitioners. It does all this in 132 A5 size pages of reasonably large type therefore it is not a long read. It contains all the European Resuscitation Council Algorithms relevant to Pre-hospital ALS course. It covers all the aspects of resuscitation in relevant detail and also covers anaphylaxis. Therefore this book could easily be used as a manual for a prehospital ALS course. My only criticism would be the method of LMA insertion described in the book. This is not the method recommended by the manufacturers.

This book is worth keeping in mind for all those who teach cardiac resuscitation in prehospital care.

J Colville Laird

Eye know how


Ophthalmology is a tricky area for many staff in accident and emergency (A&E). There are few true ophthalmic emergencies but many semi-urgent conditions that could benefit from early diagnosis and treatment. Unfortunately, ophthalmology is increasingly being squeezed from the undergraduate curriculum and many in A&E will be relatively unfamiliar with this important topic.

“Eye know how” is certainly a catchy title for a book aimed at the non-ophthalmologist dealing with ocular problems. It claims to concentrate on the common complaints seen in primary care and A&E. The structure of the book has something to commend it as the authors have adopted a presentation led approach to oculic problems with decision trees to aid diagnoses. Unfortunately, these, as with the rest of the books content, appear to be based on the authors current practice and opinions rather than any published evidence. There are significant sections of the Advanced Life Support Course Manual that are not relevant to GPs and therefore there probably is a need for a book about resuscitation in primary care. I could now spend the next two or three pages giving you reasons why The Resuscitation Council should think about an ALS Course—specifically for out of hospital practitioners. I will resist the temptation—it may however be worth thinking about.

Resuscitation in primary care


I have a thing about “whinging” GPs (despite the fact that my three children believe that it is me). I get really irritated by the person who stands up at a clinical meeting and tells his hospital colleagues “that’s all right for you in your ivory tower but out there in the real world”. So when I saw this book I thought is this another attempt by primary care to demon-}
How does this book fare? The clinical data are good, but the style (and North American slant in particular) detracts from its appeal on this side of the pond. Other than that, Oscar Wilde says it all!

T F Beattie

Injury control: a guide to research and program evaluation


This book aims to catalogue the research designs available for all those involved in injury control and research. It is aimed particularly at those who wish to improve their understanding, review injury research or conduct research in the field, so essentially it is a reference text. It is a hard backed book, 280 pages long, written by a group of epidemiologists and trauma surgeons from Harbourview Medical Center in Seattle.

To a large extent this book is successful in its aim. It has 20 chapters and begins with a historical review of what injury research has achieved to date. The future challenges of improved management for traumatic brain injury, multi-organ failure prevention and the measurement of disability are laid before us.

The second half of the book generally cuts to the chase and details the different types of studies available to those conducting research. There are useful contributions from either side of the Atlantic. Ian Stiell’s section on developing decision rules is particularly inspiring.

Despite its omissions this book is a useful reference text for those undertaking research in injury and those wishing to broaden their knowledge and understanding with some focused reading. Injury control needs a clinician's as well as an epidemiological perspective.

F Lecky

999 EMS Research Forum Board

The 999 EMS Research Forum Board is accepting abstracts for presentation at AMBEX 2002. Papers are invited on all areas of prehospital emergency healthcare. Papers for consideration should be submitted by 6 May 2002.

To obtain an official submission form email Anne Surman at a.g.surman@swan.ac.uk or write to Anne at the Clinical School, University of Wales Swansea, Singleton Park, Swansea SA2 8PP.

Submissions

Authors of the most original and interesting scientifically based work in the prehospital arena will be invited to present their study in either an oral or poster presentation during sessions at AMBEX 2002.

All work must be original and must not have appeared in a national journal or have been presented at a national meeting prior to the submission deadline.

All abstracts accepted by peer review will be published in the Emergency Medical Journal.

Awards

Cash awards will be given for:
- research most likely to impact on patient care
- most original research
- best poster

CORRECTION

An editorial error occurred in this article by Tewary and Cawte (January 2002; 19:81). The illustration was used by permission from Disney Enterprises, Inc. We apologise that this statement was omitted from the article.