

## LETTERS TO THE EDITOR

### Pre-deployment medical documentation for Non-MultiNational Forces on Operation Telic

Sir,

In a small Role 1 Basrah City location (Provisional Joint Co-ordination Centre; PJCC) during Op Telic 9, one sixth (12/72) of the population-at-risk were non-MultiNational Forces (MNF) - six were members of the International Police Association (IPA) and six were interpreters. None of the non-MNF personnel were in possession of any medical documentation relating to pre-deployment screening, possible employment restrictions, or current medications being taken, despite the high prevalence of chronic conditions and usage of regular medications. Given the longevity of the operations in which we are currently involved, and the greater emphasis on Security Sector Reform tasks [1], it is likely that there will be an increasing reliance on MOD contractors and liaison with non-MNF personnel including the IPA employed by the Foreign and Commonwealth Office.

It may therefore be prudent for there to be engagement between Defence Medical Services and the large contractors such as KBR and Turners to suggest a deployable Medical document similar to the F/Med 965. The issue of an Operational Medical record would necessitate contact with Occupational Health or a Primary Care Provider prior to deployment. Although these assertions are based on small numbers it would be of interest to determine the scale of this problem as a whole.

#### References

1. Bricknell MCM, Thompson DF. Roles for international medical services in stability operations (Security Sector reform). *J R Army Med Corps* 2007; **153**(2): 95-8.

Capt T Wood

RMO, 2nd Bn The Light Infantry  
Colinton Barracks, Edinburgh EH13 0PP

Now Core Trainee in Surgery

### Hydroxyethyl starches should not be used in critically ill patients

Sir,

We read with interest the review of the use of hydroxyethyl starch (HES) in the resuscitation of trauma patients [1]. The authors state that there is no evidence suggesting that any colloid is beneficial in the initial resuscitation of the traumatically injured patient, but that there may be a beneficial role of HES in the period following this.

The author suggests that the use of HES may be beneficial in critically ill patients with severe sepsis or following trauma. The recent VISEP trial [2] provides compelling evidence against the use of HES in volume resuscitation of patients with severe sepsis, unequivocally concluding that 10% HES 200/0.5 is harmful to this patient group.

This trial randomised patients with severe sepsis to receive either HES or lactated Ringer's (LR) solution. The trial was suspended after the group randomised to HES were observed to have a higher incidence of acute renal failure and a trend toward increased mortality than the group who received LR. The increase in renal failure occurred even at recommended doses, with an increase in 90 day mortality seen when higher doses of HES were administered. Adverse effects on clotting and transfusion requirements were also found.

As Doran stated, previous studies have demonstrated an association between HES and an increase in the incidence of acute renal failure, however these studies were limited in power.

While it cannot be stated with certainty that the adverse effects of HES in severe sepsis will also occur in trauma patients, the similar pathophysiological changes in both conditions make it likely. We suggest extreme caution should be exercised before HES is used in critically ill trauma patients. The results of this study also cast doubt on the use of HES in surgical patients, especially following major surgery that requires prolonged sedation and ITU admission post-operatively.

The precise influence of molecular weight and molar substitution of HES solutions is yet to be fully elucidated, although it is generally considered the lower the better. The VISEP trial used a HES 200/0.5, described by the trial authors as a "modern solution designed to have fewer side effects" [1] which has a lower molar substitution than that used in previous studies also demonstrating adverse outcomes [3]. Further research comparing solutions of varying molecular weight and molar substitution are required before absolute conclusions can be drawn about the side-effects of particular HES formulations *in vivo*, however the VISEP trial answers one of the questions posed by Doran, demonstrating that HES solutions should be avoided in critically ill patients.

#### References

1. Doran, C. Hydroxyethyl starch for the resuscitation of trauma patients *JR Army Med Corps* 2007; **153**: 154-159.
2. Brunkhorst, F.M., Engel, C. et al. Intensive insulin therapy and pentastarch resuscitation in severe sepsis. *N Eng J Med* 2008; **358**: 125-139.
3. Schortgen F, Lacherade JC, Bruneel F, et al. Effects of hydroxyethylstarch and gelatin on renal function in severe sepsis: a multicentre randomised study. *Lancet* 2001; **357**: 911-916.

Maj A McD Johnston MRCPI RAMC SpR In Respiratory and Intensive Care Medicine

Lt Laura Clarke MBChB RAMC Academic Foundation Doctor

Department of Military Medicine, Royal Centre for Defence Medicine, Institute of Research & Development  
Birmingham Research Park, Birmingham B15 2SQ  
United Kingdom  
amcdj@doctors.org.uk

### Combat Casualty Care

Sir,

May I offer my congratulations to the editors on the December 2007 Combat Casualty Care Special Issue of the journal. If I have a criticism however it is that my own cadre of General Practices seems little involved.

McLeod et al [1] report that the median time from injury to arrival of MERT/MERT-E at the scene is 80 minutes and it is during this time the soldiers "buddies" the medics and quite probably a primary care doctor on the ground are doing their bit. They are the ones applying pressure, QuickClot and tourniquets and quite possible preventing the catastrophic haemorrhage.

While we should aim for perfection I must also take slight issue with Brodie et al's [2] line questioning "should it have been applied during care under fire" referring to application of a tourniquet applied to the upper arm "for an extensive soft tissue forearm ballistic wound with radial artery injury". Let us not second guess the boys (and girls) on the ground. Fire fights may go on for some considerable time and certainly even the best

resourced training ground would have trouble recreating the conditions and stress those involved find themselves in. Complications are regrettable, important, and should be reviewed, but reviewed in context. Better an ulna nerve palsy than a dead patient or even a dead medic as he/she attempts a more "correct" approach and increases their exposure to the risks in which they find themselves.

Finally I welcome Russell et al's work on the Emergency Department Register [3]. At the risk of literally putting myself back in the firing line we need a similar approach in Primary Care. To my knowledge little is being published on the attendances in the primary care facilities whether they are adjacent to the military hospitals or in the field. Understandably it is the battle injuries which are getting the attention however anecdotally, (as I see no evidence) primary care continues to manage the majority of patients, and, again anecdotally, is much more a force sustaining tool than the hospitals as it is expected the majority of patients seen will return to duty. The statistics are undoubtedly important and over due as, just as Russell reports in identifying the needs for slit lamps in the Field Hospital, it is only by analysing the actual workload that we can more appropriately direct training and resources.

### References

1. J McLeod, TJ Hodgetts, P Mahoney: Combat "Category A" calls: evaluating the pre-hospital timelines in a military trauma system. *J R Army Med Corps* 2007; **153**: 266 – 254
2. S Brodie, TJ Hodgetts, J Ollerton, J McLeod, P Lambert, P Mahoney: Tourniquet use in combat trauma: UK military experience. *J R Army Med Corps* 2007; **153**: 310 – 313
3. R Russell, TJ Hodgetts, J Ollerton et al: The Operational Emergency Department Attendance Register (OpEDAR): a new epidemiological tool. *J R Army Med Corps* 2007; **153**: 244 – 250

**Col JR Timothy**  
**British Forces Germany Health Service, Regional**  
**Management Team, MRS Hohne, BFPO 30**

## Head and Neck Trauma Research

**Sir,**

The Professor of Military Surgery has recently set up a Head and Neck Surgery Research Group to investigate the management and pattern of injuries to the head and neck region during our current armed conflicts. The proportion of head and neck wounds in comparison to other body areas continues to increase, primarily due to improvements in body armor [1] and an increase in blast injuries [2].

Current topics of investigation include staged reconstruction versus immediate fixation in the management of high-velocity missile injuries, and a complete analysis of the pattern of all head and neck injuries sustained in war fighting since 2003. Maxillofacial Surgeons deploying to Afghanistan are now involved in a quarter of all operations performed in the field hospital in Kandahar. 80% of the remaining Maxillofacial injuries sustained in Iraq and Afghanistan require evacuation to a facility with specialist head and neck surgery capabilities.

We would like to encourage all authors in this field to submit work to the group via the Head and Neck Clinical Research Fellow at [johno\\_breeze@hotmail.co.uk](mailto:johno_breeze@hotmail.co.uk)

### References

1. Chalioulias K, Sim KT, Scott R. Retinal sequelae of primary ocular blast injuries. *J R Army Med Corps* 2007; **153**(2): 124-5
2. Rustemeyer J, Kranz V, Bremerich A. Injuries in combat from 1982-2005 with particular reference to those to the head and neck: A review. *Br J Oral Maxillofac Surg* 2007; **45**(7): 556-60.

**Major J Breeze**