
**Pete Driscoll, Jim Wardrope,** *Joint Editors*

## MUSCULOSKELETAL MEDICINE

Musculoskeletal problems are an increasing healthcare issue. They have a vast impact on work capacity and general health. We hope that this edition stimulates thought and debate on this topic. Although musculoskeletal medicine may not be as ''sexy as SARS'', these injuries will have an impact on the health of almost everyone at some time in their life, and for most emergency physicians 10 times a shift. Ankle injuries alone account for over 5000 consultations per day in the UK. Paradoxically even though they arrive in large numbers, research into musculoskeletal medicine is difficult. Part of the reason is that there is huge variability in defining the extent of the injury, in the patient, and in treatment.

An ''ankle sprain'' is a good example of this variability. The exact definition of the injury is often imprecise, covering a spectrum of damage from a minor self limiting tear of a few fibres to a complete rupture of all three parts of the lateral ligament complex. We should always try to gauge the magnitude of the injury but this is difficult using clinical methods alone.

The next variable is the patient. Motivation, exercise, and self treatment are essential in the rehabilitation after soft tissue injury. ''Half the cure is wanting to be cured''. Increasingly though patients want to ''be treated'' and it takes time and patience to explain the key importance of self exercise to improve neuromuscular function but emphasising ''good muscles and good reflexes'' is a start.

Then there is treatment. This is an area of conflict because there is often low level evidence available. When it is possible, good quality randomised trials support an early return to activity and rehabilitation in minor soft tissue injury.

## HOW DO YOU TREAT AN ANKLE SPRAIN?

Cooke *et al* surveyed UK emergency medicine consultants on their routine of management of ankle sprains. They found good agreement in the need for active mobilisation, non-weight bearing exercise, and physiotherapy in selected cases. There was more variation in some aspects of treatment, especially of more severe injuries. The authors are going on to carry out a large randomised trial and we await the outcome with interest.

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## ADVICE FOR ''WHIPLASH'' INJURY

Neck sprains or ''whiplash associated disorders'' (WAD) are another everyday problem in emergency medicine. The evidence base for the management of this condition is growing. Patient advice leaflets are commonly used. McClune and his coauthors found that many of these were not evidence based and in two thirds of departments the leaflets carried the contact details for solicitors. It would be interesting to measure if this had any effect on outcome. The authors have used an evidence based approach to design a patient advice booklet and measured its impact on emergency medicine patients, workers, and patients with neck pain attending a specialist clinic. They found that the booklet was acceptable and useful to emergency medicine patients.

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## ARE YOU PREPARED FOR THE NEXT DISASTER?

Dr Madzimbamuto gives an honest account of the healthcare response to a soccer stadium disaster in Zimbabwe. He and his audit team identified a number of areas where the care might have been better. However, they should take comfort from the literature on the management of mass casualty incidents. Even in resource rich countries, procedures do not always go to plan. How would you cope with a large influx of patients without warning, many of whom are critically injured? To make things even more interesting assume ongoing industrial action means you cannot do any lab tests or radiographs on patients admitted needing intensive care. This hospital has learnt important lessons from their experience and tightened training and procedures. However, in disaster management there will continue to be problems; communications will be poor, vital personnel will be missing, and planned procedures will only partially work. This paper should be read carefully by all engaged in major incident planning. Have you covered the learning points in your plan?

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## MEASURING RESPIRATORY RATE

Measuring respiratory rate is something we do not do well. In the resuscitation room as a minimum we will have continuous objective measurement of pulse, oxygen saturation, cardiac rhythm, and regular checks of blood pressure and coma score. Respiratory rate, if measured at all, tends to be a single observation during the initial observations. Yet respiratory rate is an important vital sign. Patients with abnormal respiratory rates have increased mortality. Would it be good if we had a continuous read out of respiratory rate? The paper by Leonard and colleagues can only be regarded as very early work but they indicate that analysis of the waveform from a normal pulse oximeter signal can reliably measure respiratory rate. This idea obviously needs detailed further work. There are a great many steps between the idea and every day clinical use. However, the authors are to be congratulated on testing new ways of thinking about the waves we see every day on patient monitors.

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## NIV-CPAP OR BiPAP

Respiratory physiology has always been awash with acronyms and now respiratory treatments are following the trend. Continuous positive airway pressure (CPAP) is becoming part of the standard treatment for acute cardiogenic pulmonary oedema. Newer methods of delivering non-invasive ventilation (NIV) such as bi-level positive airway pressure (BiPAP) are being advocated. The paper by Cross *et al* examines the use of both these modalities in emergency medicine patients. The bottom line is that CPAP probably is as effective and simpler and cheaper in an emergency department setting.

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