

COCHRANE CORNER



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LOW-MOLECULAR-WEIGHT HEPARIN FOR PREVENTION OF VENOUS THROMBOEMBOLISM IN PATIENTS WITH LOWER LIMB IMMOBILISATION

Authors from **Venlo (The Netherlands)** have updated their previous review, examining the effectiveness of low-molecular-weight heparins (LMWHs) as prophylaxis for venous thromboembolic events, specifically in adult patients who have sustained a lower limb injury and have been in some form of cast or brace immobilisation.¹ There remains a varied practice in the prescription of prophylactic anticoagulation for outpatients with lower limb injuries who have been immobilised in units across the UK and worldwide. There is certainly no national consensus and guidance is often conflicting. To make matters worse, many studies are commercially funded and use surrogate outcomes such as venographic evidence of deep vein thrombosis (DVT) rather than the harder endpoints of clinical DVT or pulmonary embolism (PE). We are therefore often left with our own clinical judgement to define high-risk patients and weigh up the risks and benefits of prophylactic LMWH. This update found eight randomised control trials, including two published earlier in 2017, reporting the outcomes of a total of 3680 participants. The main finding of this review is that authors report a significantly lower incidence of DVT in patients who received daily LMWH than in those who had no prophylaxis or placebo (moderate-quality evidence), though they found no differences for pulmonary embolism rates (low-quality evidence).¹ This review seems to have identified, with moderate certainty, that LMWH does reduce the incidence of DVT in this group of patients we manage in the fracture clinic. Should this change our practice? There certainly seems to be a growing body of evidence in this area. The study authors reported adverse events such as major bleeding or thrombocytopenia as rare.¹ However, the answer to this question probably lies in further understanding the morbidity and consequences of isolated calf thromboses, and in obtaining higher-quality evidence in the future to see whether there are any real differences in pulmonary embolism rates.

PERIPHERAL NERVE BLOCKS FOR HIP FRACTURES

The last decade has seen immense improvements in hip fracture care, with the introduction of comprehensive orthogeriatric care pathways, as well as falls and bone health assessments. Despite this, hip fracture continues to be the most common serious injury to the elderly population within the UK and we face an ongoing challenge to improve outcomes.

This latest review looks at the use of regional blockade in patients with a proximal femoral fracture, both before and after surgery.² The authors found a huge 31 relevant trials, although they report only a total of 1760 participants. A number of primary and secondary outcomes were assessed but the most significant findings reported by the review authors were reduction of pain on movement 30 minutes after block placement (high-quality evidence), reduction of risk of pneumonia and reduction of time to first mobilisation (moderate-quality evidence).² This thorough study has presented its results with reasonable confidence. With no major adverse outcomes reported from the papers, and reproducible results are seen across a number of studies, it seems to support the use of regional blockade in these patients. Its practice has certainly become more common in the UK and, with a growing evidence base, may yet become a quality standard.

INJECTED CORTICOSTEROIDS FOR TREATING PLANTAR HEEL PAIN IN ADULTS

This paper from **Tamil Nadu (India)** reviewed the evidence for one of the most challenging conditions to treat, that of plantar heel pain in adults. Patients often complain bitterly of acute pain in the heel, and recognised treatments vary from a padded insole through to eccentric stretching, blind and guided injections, and even plantar fascia release. This review team concentrated purely on injections and, specifically, the authors assessed the effects of injecting corticosteroids to treat plantar heel pain in adults. Perhaps surprisingly, they identified a total of 39 small studies which compared steroid injection with one of a wide range of 18 alternatives which included orthoses, physiotherapy, radiation therapy, needle release, and other injectables such as platelet-rich plasma or botulinum toxin.³ The literature here is somewhat hampered by the sheer number of comparisons. Most studies were rated 'very low-quality evidence' by the authors, and the results were rather meaningless due to this. Eight trials compared steroid with no treatment or placebo, and 'low-quality evidence' found marginal clinical benefit at one month but not in the medium term.³ As one can deduce from the huge array of treatments that have been undertaken for plantar heel pain, we are still looking for an effective, well-evidenced therapy, and it remains a difficult problem to treat. There is no conclusive evidence one way or another as to what is the most effective treatment and, while this remains the case, clinicians should use clinical judgment in their management plans.

MANIPULATIVE INTERVENTIONS FOR REDUCING PULLED ELBOWS IN YOUNG CHILDREN

This updated review from **Rotterdam (The Netherlands)** revisits a study comparing the effects of different manipulation techniques for this very common injury in children. The authors found nine studies and the most common comparison was reduction of the subluxed radial head by hyperpronation *versus* supination flexion.⁴ In a relatively straightforward update, the authors conclude that there is low-quality evidence available that the pronation method is more effective at first attempt but no conclusive evidence supported superiority of technique for pain, distress or other ill effects.⁴

CAPNOGRAPHY VERSUS STANDARD MONITORING FOR EMERGENCY DEPARTMENT PROCEDURAL SEDATION AND ANALGESIA

Procedural sedation and analgesia is paramount for successful reductions of dislocated joints and displaced fractures in the emergency department. In modern healthcare provision, patients and doctors can expect a well-equipped resuscitation room or minor operations theatre where these procedures can take place. In this setting, carbon dioxide monitoring is increasingly being used as an adjunct to the usual monitoring of vital parameters and oxygen saturations. This review from **Canada** sought to

assess whether this additional monitoring was effective in preventing adverse cardiorespiratory events.⁵ The authors only found three trials, albeit with 1272 participants in total, and concluded that moderate-quality evidence was available to suggest that the use of additional capnography did not necessarily reduce the clinically adverse events.⁵ However, this would appear to go against a trend of increased use in day-to-day practice and generalised opinion of safer sedation with carbon dioxide monitoring. As far as monitoring goes, it does seem that there are few downsides, and if the equipment is available perhaps it should be used.

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