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NEGATIVE-PRESSURE WOUND THERAPY FOR OPEN TRAUMATIC WOUNDS

This review, from **Preston (UK)**, studied the trial evidence available for the use of negative-pressure wound therapy (NPWT) in open traumatic wounds.[1] Recently, we were interested to see the published results of the Wound Management of Open Lower Limb Fractures (WOLLF) trial from the UK Major Trauma Network,[2] and this current study included an additional six suitable trials for review. The authors found four studies for open fracture wounds and three studies for traumatic wounds without fracture, all comparing NPWT with standard care (seven randomized controlled trials, total 1377 participants). The authors report moderate-certainty evidence that there was no difference between wounds healed at six weeks between the two treatment arms for open fractures, and no evidence that it is a cost-effective treatment. Pooled data from the studies for wound infection was unfortunately not conclusive. For this reason, the authors remain uncertain about whether any clear differences exist between NWPT and standard care for wound infection in open fractures, although they state that there is low-certainty evidence that no clear difference exists between NWPT and standard care for wounds without fracture. There does not seem to be supporting evidence for the use of NPWT in routine practice for open traumatic wounds, and this sentiment was echoed in the WOLLF trial. Of note, this large and most recent trial did not find any statistically significant differences in the rate of deep surgical site infections.

INTERVENTIONS FOR NECROTIZING SOFT-TISSUE INFECTIONS IN ADULTS

This interventional review from **Créteil (France)** assessed the effects of various medical and surgical treatments published in the literature.[3] Given the nature of the pathology, perhaps unsurprisingly, the authors only found three trials to include with a total of 197 participants. All participants in all trials received the 'gold standard' surgical debridement of necrotic tissues, while the trial treatment arms were based on adjuvant therapies: quinolone *vs* penicillin antibiotic, CD28 antagonist receptor *vs* placebo, and intravenous immunoglobulin *vs* placebo. While the authors report low-certainty evidence across the board, no studies showed any clear difference between the treatment arms.

FALLS IN THE ELDERLY

One of the common final pathways associated with frailty is that of falling. Falls cause significant problems in patients – not just the obvious orthopaedic problems of fragility fractures, but also loss of confidence, head injury, protracted hospitalizations, increasing levels of dependence, and eventually institutionalization, which can sadly be a hallmark of advancing age. This Cochrane review from the group in **Sydney (Australia)** does a fantastic job of updating the evidence surrounding interventions for fall prevention.[4] The authors were able to include 95 randomized controlled trials involving 138164 participants. The authors include 75 trials (40374 participants) in care facilities and 24 trials (97790 participants) in hospitals. Like many reviews, and particularly those reporting on this older, frailer population, the review was hampered by poor quality and low volumes of evidence. Nevertheless, it was able to make some recommendations. The authors concluded that there is evidence to support the use of some specific fall-prevention interventions. However, although these interventions seem likely to reduce falls, the link to reducing fractures was one step too far for these reviewers, who concluded that they were "uncertain of their effects on fractures and on adverse events as the quality of the evidence for both outcomes was assessed as very low". The authors undertook a comprehensive review subdivided by care setting and also by intervention, which was divided into exercise, medication, psychological interventions, environmental modifications, social environment, and other interventions. Within care facilities, there was no evidence that exercise reduced the risk of falling. Similarly, general medication reviews appeared to make no difference. However, the prescription of vitamin D seems likely to reduce the rate of falls (moderate-quality evidence) but not the risk of falling (moderate-quality evidence). The Cochrane review concluded that the use of a falls risk-assessment tool probably makes little or no difference to the rate of falls or risk of falling (moderate-quality evidence). Yet, there was not enough evidence to conclude on the effects of guideline implementation and dementia care mapping. There is a similar picture within the hospital setting, with significant uncertainty surrounding the value of additional or medication review on either rate of falls or risk of falling (very low-quality evidence). The review was also unable to reach any level of certainty as to the benefits, or otherwise, of environmental modifications, vitamin D prescription, adjustments to the social environment, or fall-prevention care in an inpatient setting. There is some low-quality evidence that multifactorial intervention may reduce the rate of falls, although this is most likely effective only in a subacute setting. So, the outlook is somewhat bleak for our falling patients, with little evidence that

interventions in the hospital setting are at all effective, although there appears, with moderate certainty, to be some effectiveness regarding vitamin D on falling in a hospital setting.

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