

Wound care meta-review draws firm conclusions from Cochrane published studies

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Robust evidence exists for some wound care interventions, but there are still gaps in current knowledge requiring international consensus and further high-level clinical evidence, according to a paper published online by *BJS*, the *British Journal of Surgery*.

Researchers analysed the findings of 44 Cochrane Systematic Reviews (CSRs) published by the Cochrane [Wounds](#) and [Peripheral Vascular Disease](#) Groups up to June 2011. The reviews covered CSRs on acute wounds and chronic wounds such as venous, pressure, diabetic and arterial ulcers.

This enabled them to identify a number of findings that provide strong clinical evidence for treating specific wound issues.

"Acute and chronic wounds pose a substantial problem in different [healthcare settings](#) including emergency departments, nursing homes, home care and family doctor practices" says co-author Dr Dirk Ubbink, from the Academic Medical Centre in Amsterdam, The Netherlands.

"Because wounds have a considerable impact on patient health, death, daily functioning and quality of life, they deserve high-quality local and systemic treatment.

"Ideally wound treatment decisions should be based on the best available evidence, integrated with patients' concerns and priorities and fine-tuned by the local resources and skills. In reality, however, [treatment decisions](#)

are generally based on the personal opinions, experiences and preferences of healthcare professionals, which can vary widely. This is partly due to the overwhelming amount of literature available, which often shows conflicting results.

"Our meta-review of the CSRs aims to help clinicians make evidence-based decisions by analysing studies of both local and systemic open wound care."

The meta-review covered 13 CSRs on venous ulcers, 12 on acute wounds, seven on [pressure ulcers](#), six on [diabetic ulcers](#), five on arterial ulcers and five on miscellaneous chronic wounds.

Findings were placed into five categories, based on strong evidence of effect/no effect, limited evidence of effect/no effect and no evidence either way.

Strong findings included:

Acute wounds

- Using antibiotics to prevent infections after dog bites is ineffective unless the bites are on the hands.
- Systemic treatment with therapeutic touch does not have any additional effect on [wound healing](#) compared to placebo or non-treatment after minor surgery.
- Cleansing pin site wounds using saline, alcohol, hydrogen peroxide or antibacterial soap to prevent infections is no more effective than no cleansing.
- Topical honey reduces wound healing time when compared to film or gauze-based dressings for burns.
- Silver sulfadiazine should not be used for burns as trials show

this can delay wound healing and increase pain and infection rates.

- Drinking quality tap water is better for cleansing lacerations and acute soft tissue wounds than sterile saline solutions.

Chronic wounds

- Systemic treatment of venous ulcers with pentoxifylline increases complete wound healing and compression therapy, using high compression, multi-component systems or elastic bandages, is most effective.
- Using hyperbaric oxygen therapy decreases major amputations in diabetic ulcers and local hydrogels should be used after debridement to promote wound healing.
- Systemic prostanoids should be used to relieve rest pain and improve ulcer healing in patients with critical leg ischaemia and spinal cord stimulation improves limb salvage.
- Using high-specification foam mattresses and low air loss mattresses can prevent pressure ulcers on the ward and pressure-relieving overlays are recommended on operation tables. Using local therapeutic ultrasound is not recommended for healing pressure ulcers.

"Our meta-review drew 33 conclusions with strong evidence and 18 conclusions with fairly strong evidence from the CSRs we studied" says lead author Dr Fleur Brölmann. "Evidence was not available or insufficient in the remaining 58."

More information: Evidence-based decisions for local and systemic wound care. Brölmann et al. BJS. Published online early ahead of print publication in the September issue. (July 2012). [DOI: 10.1002/bjs.8810](https://doi.org/10.1002/bjs.8810)

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