



Title	Topical Negative Pressure Therapy for Wounds
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Reference	Ritchie K et al. 2010. HTA Report 12. Glasgow: NHS Quality Improvement Scotland 1-84404-912-4. www.nhshealthquality.org

Aim

To assess the clinical and cost effectiveness of treating wounds with topical negative pressure (TNP) therapy and to review other relevant aspects of using this technology.

Results and conclusions

Published evidence on the clinical and cost effectiveness of TNP therapy for wounds was generally of poor quality, and the evidence base was not considered robust. Different TNP devices are available, but the evidence identified was limited mainly to one manufacturer's device, and in many cases the manufacturer had sponsored the research.

Some evidence supports the use of TNP therapy, eg, in:

- grade III and IV pressure ulcers
- wounds caused by burns or trauma that require a skin graft
- wounds from surgical cuts for fractures deemed at high risk of healing problems
- open abdominal wounds with peritonitis
- open chest wounds.

While a lack of evidence does not prove that a therapy does not work, there is insufficient evidence to say whether TNP therapy is beneficial for: necrotizing fasciitis, burns not being grafted, pilonidal sinus, and venous leg ulcers not being grafted. Patients with experience of TNP therapy believed that it expedited wound healing and a return to some level of normality, but were embarrassed by the odor and concerned that the device limited social activities. Varying levels of pain or discomfort were reported, and the need for consistent patient information was identified.

Recommendations

Several different wound types for which TNP therapy may be beneficial were identified, but clinicians were

advised to continue to select treatment options based on individual needs and resources available. Health professionals delivering TNP therapy should participate in formal training, and the care team should consider changing dressings every 2 days to minimize odor. When discharged patients continue receiving TNP therapy at home, the hospital staff should work closely with the community care team in this transition.

Methods

Evidence identified by systematic literature searching and provided by experts was critically appraised and analyzed. A survey to determine current use and a qualitative study involved people experienced in TNP therapy to ascertain their views. The final report was peer reviewed.

Further research/reviews required

Well-designed studies, not funded by manufacturers of TNP devices, should aim to detect differences in time-to-healing for each of the common wound types targeted by TNP therapy, and should address the different devices, standard treatment, and costs.