

Seeking effective interventions to treat complex wounds: An overview of systematic reviews

Summary

We conducted a comprehensive overview of reviews to identify optimal complex wound care interventions. Data from 99 systematic reviews were evaluated and promising interventions for specific wound types were identified. Effective treatments for complex wounds in general were difficult to establish due to the diverse wound types, treatments and outcomes assessed in the literature.

Implications

Numerous interventions can be used for patients with different types of complex wounds, yet few treatments were consistently effective across all outcomes in the literature. Clinicians and patients can use our results to select appropriate treatment(s) according to wound type. Network meta-analysis would benefit decision-makers as it permits multiple treatment comparisons and ranking of the effectiveness of all available wound care interventions.

Reference: Tricco AC, Antony J, Vafaei A, et al. Seeking effective interventions to treat complex wounds: an overview of systematic reviews. *BMC medicine*. 2015 Apr 22;13(1):1.

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What is the current situation?

- Complex wounds are those that have not progressed through the ordered process of healing to yield a functional result after a period of at least 3 months.
- The main types include those due to chronic disease (e.g., venous or arterial insufficiency, diabetic leg/foot ulcers), pressure ulcers, and infected surgical wounds.
- Numerous multi-faceted regimens are available for treating complex wounds, yet the evidence for the effectiveness of these interventions is unclear.

What is the objective?

We aimed to clarify optimal treatment strategies for complex wounds through an overview of systematic reviews.

How was the review conducted?

- We searched MEDLINE, EMBASE, and the Cochrane Database of Systematic Reviews from inception until 2012.
- Systematic reviews of adults receiving care for their complex wounds were included; relevant outcomes included healing or admission to hospital.
- Two reviewers independently screened, abstracted data, and assessed study quality using the Assessment of Multiple Systematic Reviews (AMSTAR) tool.

What did the review find?

- 99 systematic reviews were included and 44% of these were rated as being of high quality (AMSTAR score ≥ 8).
- Promising interventions for complex wounds included:
 - bandages or stockings (multi-layer, high compression) and wound cleansing for venous leg ulcers;
 - 4-layer bandages for mixed arterial/venous leg ulcers;
 - biologics, ultrasound, and hydrogel dressings for diabetic leg/foot ulcers;
 - hydrocolloid dressings, electrotherapy, air-fluidized beds, and alternate foam mattresses for pressure ulcers; and
 - silver dressings and ultrasound for unspecified mixed complex wounds