

outcomes of interest were measured. Benefits are assessed as slightly outweighing harms given that PNC-administered anesthetic improves the outcome of post-operative pain and was not associated with serious adverse effects. Patient values were deemed similar as the patient focus group report good quality pain control of importance. Thus, the Work Group decided upon a *Weak for* recommendation.

Recommendation

5. Post-transtibial amputation, we suggest application of a rigid or semi-rigid residual limb dressing to promote healing and early prosthesis use as soon as feasible.

(Weak for | Not reviewed, Amended)

Discussion

The Work Group did not identify any new evidence on post-surgical dressing options for transtibial or transfemoral amputation that met inclusion criteria.

“Residual limb dressing” is often used to describe dressings that are placed over a local surgical incision, such as sterile gauze. Potential goals of post-operative residual limb management include: to promote healing, promote early prosthesis fitting, promote earlier or improved return to function, or control residual limb or PLP. Ideally, a post-operative residual limb dressing should protect the surgical incision and residual limb from trauma, control edema, prevent knee flexion contracture (if applicable), and shape the limb for prosthesis fitting.⁽⁷⁸⁾ There are three categories of post-amputation residual limb dressings^(78,79): soft dressings, semi-rigid dressings, and rigid dressings. Terminology varies and categories are not mutually exclusive. For example, in the SR by Kwah et al.⁽⁷⁹⁾, semi-rigid dressing is a term sometimes grouped under rigid dressings. Some rigid dressing interventions included the use of a soft, elastic dressing underneath the rigid layer.^(80,81)

Soft Dressing

Soft residual limb dressings can be categorized as *non-elastic soft dressings* (e.g., gauze wrapping and/or non-elastic residual limb sock) or *elastic soft dressings* (e.g., elastic bandage or elastic residual limb shrinker sock). Soft dressings are relatively easy to apply and remove, easy to store and order from the manufacturer (therefore easy to replace should soiling occur) and make it easy for clinicians to inspect and address the incision. Elastic bandages, if incorrectly applied, could cause excess pressure at the proximal limb or other location, which could lead to tissue damage and compromised distal blood flow, impaired healing and a suboptimal limb shape.^(78,80) Possible disadvantages include dressings falling off if loose, suboptimal protection of the residual limb from trauma, and increased the likelihood of knee flexion contracture.

Semi-Rigid Dressing

A variety of dressings could be considered as “semi-rigid”. Some studies use the term to specifically describe dressings that “consist of a bandage imbedded with Unna paste (zinc oxide, calamine, gelatin, and glycerine) which forms a semi-rigid inextensible dressing”.⁽⁸²⁾ Other