Nutrition and Wound Healing

promoting healthy skin

Champions for Skin Integrity

This guidelines summary has been developed for health professionals caring for clients with impaired skin integrity or those at risk of loss of skin integrity. Assessment and management of skin integrity should be undertaken by health professionals with expertise in the area.

GUIDELINES SUMMARY

For this summary, all recommendations have had their levels of evidence classified as follows:

Level I	Evidence from a systematic review or meta-analysis of at least two level II studies
Level II	Evidence from a well designed randomised controlled trial (for interventions), or a prospective cohort study (for prognostic studies)
Level III	Evidence from non-randomised studies with some control or comparison group (pseudo-randomised controlled trial; non-randomised experimental trial, cohort study, case-control study, time series studies with a control group; historical control study, retrospective cohort study)
Level IV	Evidence from studies with no control or comparison group
EO	Consensus statements provided by a National or International Panel of experts in the area.

This is a summary of recommendations from the following sources, which should be accessed for further details as required:

1. Wounds Australia. Standards for Wound Prevention and Management. 3rd edition. Cambridge Media: Osborne Park, WA; 2016.
2. Posthauer M et al. The Role of Nutrition for Pressure Ulcer Management: National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance White Paper. Advances in Skin & Wound Care, 2015. 28:175-190.
3. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers. Haesler E (Ed.) 2019. EPUAP, NPIAP, PPPIA
4. Wilkinson EA. Oral zinc for arterial and venous leg ulcers. Cochrane Database of Systematic Reviews, 2014, 9:CD001273.
5. Barber GA et al. Effects and associations of nutrition in patients with venous leg ulcers: A systematic review. Journal of Advanced Nursing 2018, 74:774-787.

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QUT ihbi Institute of Health and Biomedical Innovation

Assessment

1. Nutritional screening should be conducted in people with, or at risk of developing, a wound in all health care settings, [1,3] (IV)
   using a validated tool, such as the Mini Nutritional Assessment (MNA) [1,2] (IV)
2. Nutritional assessment is a continual monitoring and review process which lasts as long as the wound healing process, with each condition change and/or delayed healing [2] (EO)
3. Assess quantity, quality and nutritional content of food and fluid intake [1] (EO)
4. Assess the individual's general health and ability to eat independently [1,3] (EO)
5. Document nutritional status of people with, or at risk of, developing a wound [1] (EO)

Management and Prevention

6. Refer individuals found to be at risk of malnutrition to a nutrition health professional for a comprehensive nutrition assessment [3] (EO)
7. Ensure adequate nutritional intake and hydration to address any deficits and optimise wound healing potential [1] (EO)
8. Ensure adequate hydration, micronutrient, energy and protein intake to meet the individual's needs, whether at risk of, or with a wound [3,5] (EO)

   Provide high calorie, high protein supplements for those at risk of, or with malnourishment, if nutritional needs are not met by usual diet [3] (III)

   Provide high protein, arginine, zinc and micronutrient supplements in people with a Stage III or greater pressure injury, who have, or are at risk of, malnourishment [3] (II)

   Provide extra fluids if individuals have conditions leading to dehydration (e.g. fever, vomiting, high levels of exudate) [3] (EO)
9. Oral zinc supplements do not improve healing of arterial and venous leg ulcers [4] (I)