Pan-Pacific Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers

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The Dietitians Association of Australia (DAA) is the national association of the dietetic profession with over 6000 members, and branches in each state and territory. DAA is a leader in nutrition and advocates for food and nutrition for healthier people and healthier nations. DAA appreciates the opportunity to provide feedback on the Pan-Pacific Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers Developed by Wounds Australia, the New Zealand Wound Care Society, Hong Kong Enterostomal Therapist Association and the Wound Healing Society of Singapore.

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DAA interest in this consultation

DAA is the peak professional body for dietitians in Australia. DAA acknowledges the burden that Venous Leg Ulcers place on both the patient and health care system. DAA is interested in guidelines to support best practice care in Venous Leg Ulcer management.

The Accredited Practising Dietitian (APD) program is the foundation for self-regulation of the profession, and a public assurance of safety and quality. APDs play a key role in Venous Leg Ulcer management as they have the training, skills and knowledge to provide evidence based interventions using Medical Nutrition Therapy. APDs work with other health professionals to provide nutrition advice to those with Venous Leg Ulcers. DAA recognise the essential nature of a multidisciplinary team, including an APD, in achieving better health outcomes for people with Venous Leg Ulcers.

Key Messages and Recommendations

DAA support the three recommendations within the Nutrition and Hydration Unit. DAA agree that patients with a Venous Leg Ulcer should undergo nutrition screening and assessment. Patients should be optimising their nutritional (both macro and micro nutrient) intake to promote wound healing and only be recommended for supplementation if correction of an identified deficiency is required.

DAA recommend additional information on overweight and obesity be included within the Nutrition and Hydration Chapter to ensure the unit is comprehensive for practitioners looking at nutrition guidelines for Venous Leg Ulcers.

DAA recommend that throughout the document the term 'Accredited Practising Dietitian' (APD) be used when a nutrition professional is referred to. Furthermore, the title should be capitalised throughout the document and spelt as above.

APDs are the experts in food and nutrition and provide Medical Nutrition Therapy for a variety of conditions. APDs should be involved in multiple stages of care for those with a Venous Leg Ulcer. DAA recommend that APDs provide healthy lifestyle advice and weight management interventions as part of the prevention strategies (Chapter 5). APDs should also provide nutrition and healthy lifestyle advice as part of the education for patients and carers in Chapter 13.

DAA support that a nutrition screen and assessment provided by an APD be included in Chapter 6 as part of the comprehensive assessment.

DAA support that the impact of body weight should be considered for those with a Venous Leg Ulcer. Appropriate evidenced-based weight management interventions provided by an APD should be encouraged.

Additional comments are included within the discussion below.

Discussion

Accredited Practising Dietitian

DAA recommend the wording in section 6.2 say APD rather than 'registered dietician' as this is not correct Australian terminology.

Chapter 13- DAA support that individuals with a Venous Leg Ulcer are provided with education on nutrition. This education should be delivered by an APD.

Chapter 8 Nutrition and Hydration

Line number	Comments
5	Typo- 'leg' is missing the letter 'g'
15	The impact of malnutrition on tissue regeneration and inflammatory response required for wound healing and overall immune function should be highlighted. The impact of malnutrition on recovery as well as a risk factor for Venous Leg Ulcers should be included.
16	Recommend changing to- "Identifying individuals who have, or are at risk of malnutrition, **including obesity**, is important…"
Lines11-18	This paragraph should outline the importance of individualised nutritional management for patients with a Venous Leg Ulcer.
Line 26	Recommend changing 'interdisciplinary' to 'multidisciplinary'.
Table 8a	The MNA-SF under nutrition assessment in the acute care setting should be MNA. Both the MUST or MST tool may not identify overweight or obese patients with nil recent weight loss, who have poor quality diets adequate in energy and protein but suboptimal in micronutrients for wound healing. Other tools that should be listed as part of the assessment include: • BMI • Pathology Testing, particularly to assess for micronutrient deficiencies.

Line 36	Recommend changing 'optimal nutrition' to 'adequate intake'.
Line 37	Recommend adding 'obesity is often a result of excessive energy intake and is associated with delayed venous leg ulcer healing[1,2,3] so care should be taken not to exceed requirements in this group'.
Line 44	An additional Practice Point should be added to state that APDs should provide the Medical Nutrition Therapy for those with a Venous Leg Ulcer.
Line 45	This point should specify that ideally nutritional requirements should be met by an adequate dietary intake, however when this is not possible supplementation should be provided. Recommend adding 'via oral nutrition support or specific nutrient supplementation where required and appropriate'.
Line 47	There are other factors beyond stress that will also impact on nutrition requirements such as phsyical activity levels and pre-existing obesity.
Line 48	Recommend that this line should state that whilst there isn't research specific to Venous Leg Ulcer's, there is for pressure ulcers and diabetic foot ulcers. The comparative levels of stress that these conditions place on the person's nutritional requirements could be discussed and this practice point could then include additional references[4,5]. Ideally this point would include details of what is an adequate amount of protein for a healthy individual, the increased amount required for Venous Leg Ulcers and the even greater increase in protein requirements for exuding Venous Leg Ulcer's.
Line 50	Reference 6 should refer to Australian nutrient reference values.
Line 51	It is recommended that the Practice Point on Hydration be expanded to include a list of conditions that could impact on the ability for one to achieve adequate hydration. Furthermore, methods to monitor hydration should be included. Inclusion of a recommended mL/kg/per day would be useful for those referring to the guidelines.
Line 54	Recommend adding additional practice points- • Individuals who are obese are more likely to have delayed wound healing[1,2,3], thus ensuring energy intake is not excessive for requirements is recommended. There appears to be no research regarding the effect of weight reduction in obese individuals with venous leg ulcers. However, gastric bypass surgery induced weight loss corrected venous stasis disease in 64 morbidly obese patients in a US study[6]. Patients that regained significant weight post-surgery had higher rates of venous ulcer recurrence[6].

Line 56	Recommend adding a statement outlining that the consumption of adequate macro and micronutrients will assist with wound healing. There are studies to support that those with a Venous Leg Ulcer often have poorer diets, and it is therefore essential they consume a nutritionally adequate diet to promote wound healing.
Line 60	The reasons for why there is limited evidence on this topic should be mentioned.
Section 8.3	There are a number of other micronutrients that may play a role in wound healing. One additional study and reference[7] is included below- An Italian study compared the effect of 1.2mg folic acid in 54 Venous Leg Ulcer patients with hyperhomocysteinaemia compared to 33 Venous Leg Ulcer patients with normal serum homocysteine who received no folic acid[7]. Folic acid treatment decreased homocysteine levels in those with both moderate and intermediate hyperhomocysteinaemia ($p<0.01$) and a higher healing rate was seen in these patients receiving folic acid ($p<0.05$). 62% of Venous Leg Ulcer patients were identified to have hyperhomocysteinaemia. It is noted that this study did not compare the effects of folic acid supplementation in the same population, thus conclusions drawn from the findings of this study are limited.
Line 109	Recommend clarifying whether a significant difference exists or not. This line states that the difference was not significant however it has a P value of 0.006, which is significant.

Chapter 11 Pharmacological Treatment

Line 28- This statement should highlight that vitamin and mineral supplements are only included with pharmacological management plans if a deficiency has been identified. This will ensure consistency with Chapter 8.

Chapter 14 Healthcare Delivery System

The importance of working in a multidisciplinary team to improve clinical outcomes and reduce cost should be highlighted in this chapter. Leg Ulcers were included within a systematic review which highlighted the importance of working as a team[8].

Chapter 15 *Special Populations*

The above comments regarding obesity and delayed wound healing as well as the effect of weight loss surgery and venous stasis disease should be incorporated in the section following line 112. It is recommended that the information regarding

obesity be included in both units as practitioners using the guidelines for nutrition may refer directly to the Nutrition and Hydration unit.

References

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4. Clarke M, Scholes JM, Benati G et al. Pressure ulcers and nutrition: a new European guideline. *J Wound Care* 2004; 13: 267-72
5. Bergstrom N, Bennett MA, Carlson CE et al. Treatment of Pressure Ulcers: Clinical Practice Guidelines, No. 15. Rockville, MD: US Department of Health and Human Services.
6. Sugerman HJ, Sugerman EL, Wolfe L, Kellum JM, Schweitzer MA, DeMaria EJ. Risks and Benefits of Gastric Bypass in Morbidly Obese Patients With Severe Venous Stasis Disease. *Ann Surg* 2001; 234(1): 41-6.
7. de Franciscis S, De Sarro G, Longo P et al. Hyperhomocysteinaemia and chronic venous ulcers. *Int Wound J* 2015;12(1):22-6.
8. Moore, Z Butcher, G, Corbett, LQ, et al. AAWC, AWMA, EWMA Position paper: Managing Wounds as a Team. *J Wound Care* 2014; 23 (5 Suppl.):S1-S38.