

Supplemental Table 4. CHARACTERISTICS OF SELECTED BEST-PRACTICE GUIDELINES

Author/ Organization and Year	Target Population, Scope/Purpose, and Country of Origin	Evidence Collection, Quality, Strength Rating, and Recommendations	Main Findings of Relevance
Lower Leg Ulcer			
Neumann et al, ¹⁹ 2016	Dermatologists or other medical specialists A guideline for everyday diagnostics and treatment of VLU by dermatologists and other medical specialists Europe	Systematic search of publications in Medline, CINAHL and Cochrane from 1995 to 2012. Also based on an earlier VLU guideline form 2006 No. of included studies not reported. Evidence graded using an ABCD grading scale	32 recommendations; 14 are applicable to the research question. Generally, very good overview of VLUs. Single mention of nonhealing ulcers that respond well to deep debridement of ulcer to beyond the level off fibrosis Recommendation 4: ABPI should always be determined before pressure therapy is given Recommendation 10: It is recommended that patients with a leg ulcer should be subjected to an additional investigation to rule out concomitant arterial occlusive disease by measuring systolic ABPI. Further arterial investigation may be undertaken on indication. Recommendation 12: Taking multiple biopsies should be considered if an ulcer does not respond or responds inadequately and has an atypical appearance. Recommendation 14: Compression therapy is the treatment of first choice in an uncomplicated venous leg ulcer. Recommendation 15: Properly applied high-interface pressure amplitude compression bandages are to be used in uncomplicated VLUs. Recommendation 16: Reduction of edema may be achieved cheaply and generally quickly when short stretch bandages are correctly applied. Recommendation 17: The level of cleansing and exudate are the most important parameters for further VLU treatment. Recommendation 18: The following aspects are important when cleansing an ulcer: Begin with a surgical necrotomy if possible. Collagenase is the only agent for enzymatic treatment. Use no topical antiseptics. Cleanse wounds with tap water. Recommendation 19: The working group advises modern wound dressings for achieving a moist wound environment also because the dressings do not need frequent changing. The choice of a particular product depends mainly on the level of exudate. Recommendation 20: Silver sulfadiazine/paraffin is the only eligible antimicrobial agent for topical use. Recommendation 28: Pain should be adequately treated. Recommendation 29: Compression therapy with medical elastic compression hosiery should be prescribed to prevent recurrence after a VLU has healed. Recommendation 31: Adequate patient care in the treatment of VLUs also includes nutrition optimization. Recommendation 32: Providing information and advice concerning lifestyle is indispensable in: Avoiding immobility Encouraging the use of the calf muscle pump (walking, adequate footwear) Avoiding (developing) overweight Encouraging adequate nutrition Discouraging smoking Long bed rest is not a treatment option for VLUs

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Author/ Organization and Year	Target Population, Scope/Purpose, and Country of Origin	Evidence Collection, Quality, Strength Rating, and Recommendations	Main Findings of Relevance
Diabetic Foot Ulcer			
Isei et al, ³¹ 2016	Medical professionals To prepare guidelines for the management of diabetic ulcer/gangrene with the emphasis on the diagnosis and treatment of skin symptoms. Japan	Medline, PubMed, Japan Centra Revou Medicina Web, Cochrane database systematic reviews from January 1980 to December 2008. Priority placed on RCTs, systematic reviews, cohort and case control studies Evidence level classified on a I to VI scale. Recommendations classified according to levels 1 and 2 and an ABCD scale used to further grade strength of evidence of the recommendations	<ol style="list-style-type: none"> 1. Comprehensive assessment to exclude PAD, assess neuropathy and grade ulcer. Offloading to treat the cause 2. Surgical debridement is recommended to remove necrotic tissue; use caution in the presence of PAD. Maintenance debridement recommended. 3. Early detection of infection to prevent further complications. Use of topical antimicrobials recommended. 4. The use of antibacterial agents cannot be recommended because of a lack of sufficient evidence 5. For osteomyelitis antibiotics should be administered for at least 2 weeks after removal of infected bones. If infected bones cannot be sufficiently removed, the administration of antibacterial drugs at least 6 weeks. 6. Bathing may spread infection or fungal presence to other areas on the foot. 7. Assess efficacy of treatment modality weekly and adjust accordingly 8. Glycemic control and attention to nutrition is recommended 9. HBOT is recommended as an option for the treatment of DFUs. 10. Regular foot examinations and treatment of tinea pedis is recommended. 11. Health dialogue and promotion of self-care can reduce risk of amputation.
Lavery et al, ³² 2016	Clinicians The objectives of the WHS DFU guidelines are to systematically evaluate the medical literature to assist clinicians in making health care decisions, identify areas that need additional research, and to clarify controversial diagnosis and treatment strategies. United States	PubMed, Embase, and Cochrane Library databases. 205 studies included Evidence graded using a different approach to evidence citations and past approaches to evidence-based guidelines relied on publications regarding clinical human studies	<ol style="list-style-type: none"> 1. Treat the cause. Clinically significant arterial disease should be ruled out; patients with ischemia should be considered for a revascularization procedure. 2. Assess neuropathy 3. Examination of the whole patient is important to evaluate and correct causes of tissue damage. 4. Determine arterial blood supply 5. Optimizing glucose control improves wound healing. 6. Off-loading the area of high pressure has been the mainstay to heal DFUs and prevent recurrence of foot ulcerations. 7. Debridement: remove all necrotic or devitalized tissue 8. Infection: reduce the bacterial bioburden in the wound to reduce the risk of clinical infection and improve wound healing. Osteomyelitis is most effectively treated by debridement of the infected bone. With daily assessment of temperature changes, patients could identify early warning signs of tissue inflammation and reduce their activity to avoid ulceration. Wounds should be cleaned initially and at each dressing change using a neutral, nonirritating, nontoxic solution. 9. Moisture: Apply moist wound healing principals. 10. Edge advancement: Patients who fail to show a reduction in ulcer size by 50% or more after 4 weeks of therapy should be re-evaluated and other treatments considered. 11. Patient-centered concerns: select a dressing that is cost effective; consider provider time, ease of use, and healing rate, as well as the unit cost of the dressing. 12. Adjuvant agents: selectively use adjuvants (negative-pressure wound therapy, HBOT) after evaluating a patient and their ulcer characteristics and when there is a lack of healing progress in response to more traditional therapies 13. Health dialogue: self-care such as good foot care, proper bathing, and nail care should be included as part of a comprehensive education program.

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Author/ Organization and Year	Target Population, Scope/Purpose, and Country of Origin	Evidence Collection, Quality, Strength Rating, and Recommendations	Main Findings of Relevance
Huang et al, ³³ 2015	Clinicians, patients and policy-makers A clinical practice guideline for the use of HBOT in the treatment of DFUs United States	Medline, Embase, Cochrane Published systematic reviews, RCTs, and observational studies up to April 2015. Included studies: Evidence grading using the methodology of the GRADE Working Group 6	Aggressively address revascularization of the ischemic foot, debrided devitalized tissue, managed deformities by offloading the neuropathic foot, and anti-infective therapies before or concurrently with adjunctive HBOT. In patients with Wagner Grade 3 or higher DFUs who have just had a surgical debridement of an infected foot, add acute postoperative HBOT to the standard of care to reduce the risk of major amputation and incomplete healing.
Crawford et al, ³⁴ 2013	Physicians, nurses, therapists, and other health care professionals who work with adults who have or are at risk for lower-extremity neuropathic disease To develop an evidence-based clinical practice guideline for management of wounds in patients with lower extremity neuropathic disease. United States	Medline, Cochrane systematic reviews Published work between 2003 and 2012 Priority placed on RCTs, systematic reviews, meta-analyses and retrospective studies No. of studies included: not reported Evidence grading using a standard process	<ol style="list-style-type: none"> 1. Comprehensive assessment to exclude PAD, assess neuropathy, and grade ulcer. Offloading to treat the cause. Comprehensive foot assessment. 2. Surgical debridement is recommended as the initial debridement to remove necrotic tissue; take caution in the presence of PAD. Maintenance debridement recommended. 3. Early detection of infection to prevent further complications. Use of topical antimicrobials recommended. For osteomyelitis antibiotics should be administered for at least 2– weeks after removal of infected bones. If infected bones cannot be sufficiently removed, the administration of antibacterial drugs at least over 6 weeks. Bathing may spread fungus and bacterial infection to other parts of the foot. 4. Assess efficacy of treatment modality weekly and adjust accordingly 5. Glycemic control and attention to nutrition is recommended 6. Adjunctive therapy: HBOT is recommended as an option for the treatment of DFUs, especially nonhealing wounds. 7. Regular foot examinations and treatment of tinea pedis is recommended. 8. Health dialogue and promotion of self-care can reduce risk of amputation. 9. Assess foot wear.

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Author/ Organization and Year	Target Population, Scope/Purpose, and Country of Origin	Evidence Collection, Quality, Strength Rating, and Recommendations	Main Findings of Relevance
Pressure Ulcer			
Fujiwara et al, ³⁸ 2018	Medical professionals To update evidence-based guidelines for multi-professional practitioner for diagnosis and treatment of PUs Japan	Searched Medline, PubMed, Japanese Medical Abstracts Society and Cochrane Database of Systematic Reviews from January 1980 to December 2013, as well as personal references of committee members. Included systematic reviews, RCTs, cohort studies and case-control studies Evidence level classified on a I to VI scale. Recommendations classified according to levels 1 and 2 and an ABCD scale used to further grade strength of evidence of the recommendations	Prevention Change the body position regularly within 2 h and use a pressure relieving mattress to prevent pressure damage from hypoxia 1A Check body pressure areas in wheelchair-bound individuals such as those with paraplegia and patients with SCI 2C Additional nutrition support is recommended for the prevention and management of pressure ulcers 1A Pain Select a pressure-relieving mattress and specific wound dressings to relieve pain 2C Prescribe nonsteroidal anti-inflammatory drugs and/or psychotropic drugs to manage the patient 's pain 2C Manage infection if present Debridement Perform a complete or partial surgical removal of undermined skin supported by cauterization to control bleeding 1C Surgical debridement of nonviable tissue is proposed if patient's condition can tolerate it. Recommended wound care products for removal of devitalized tissue include cadexomer iodine (1A), dextranomer (1B), and iodoform (1C). Recommended products for removal of dead tissue in wound with low exudate levels include hydrogel dressings (1B) and silver sulfadiazine (1D). Note : the use of wet-to-dry dressings is not recommended Infection Bathing of patients with pressure ulcers is recommended (1C) Do a comprehensive assessment of patient and the wound bed and periwound area to diagnose infection Hematological and blood chemistry tests 1D Recommended products to decrease bioload of wound bed include cadexomer iodine (1A), silver sulfadiazine (1A), povidone-iodine sugar (1A) and gel (1A), iodine ointment (1D), and iodoform (1D). Note: the application of ointment containing an antibiotic is not recommended (2A).

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Author/ Organization and Year	Target Population, Scope/Purpose, and Country of Origin	Evidence Collection, Quality, Strength Rating, and Recommendations	Main Findings of Relevance
			<p>Recommended dressings for a localized infection include hydrofiber with silver (1A), polyurethane foam containing silver (1A), and alginate with silver (1A)</p> <p>Administration of systemic antibiotics is recommended with signs of inflammation in the periwound area or with pyrexia, and increased white blood cell count or worsening of the inflammatory reaction, but also with positive bacterial cultures from wound bed (1D)</p> <p>Moisture control</p> <p>Recommended products for management of high exudate levels include cadexomer iodine (1A), dextranomer (1A), povidone iodine sugar (1A), and iodine ointment (1D)</p> <p>Recommended dressings to absorb excess exudate include alginate (1A), polyurethane foam (1C), chitin (1C), hydrofiber (with silver) (1C), hydropolymer (1C), and polyurethane foam/soft silicone (1D).</p> <p>Use hydrogels when exudate is low and wound bed contains eschar (1B)</p> <p>Use povidone iodine sugar for wounds with high exudate levels and undermined edges (1B)</p> <p>Wounds with very high exudate levels or massive edema could benefit from bucladesine sodium, aluminum chlorohydroxy allantoinate, and povidone iodine sugar.</p> <p>Wounds with normal to low exudate levels (only superficial wounds) could benefit from trafermin (1A), tretinoin or tocopherol (1A), prostaglandin (1A), lysozyme chloride (1B), white petrolatum (1D), zinc oxide (1D), and dimethyl isopropyl azulene (1D)</p> <p>Manufactured or handmade negative-pressure wound therapy can be used under careful observation, after debridement to treat stages III and IV pressure ulcers. (1C)</p> <p>Infrared-visual therapy (1A), low-power laser therapy (1B), Hydrotherapy (1A) and HBOT are recommended (1C)</p> <p>Surgical management</p> <p>Surgical and/or enzymatic debridement and treatment of infection several weeks before surgical management of Stage III and IV pressure ulcers are strongly recommended. (1C)</p> <p>Do a comprehensive assessment of the whole patient and determine the reasons for reconstructive invasive surgery. (1C)</p> <p>Evaluate nutrition status, cardiopulmonary function, urinary and/or fecal incontinence, home environment after discharge</p> <p>Dermatoplasty or a flap operation is successful for early management of pressure ulcers that potentially will not heal or take a long time to heal. Fasciocutaneous flap surgery ensures long term better results compared to musculocutaneous flap surgery.</p> <p>Other local treatment could include hydrotherapy (1A), infrared therapy (1A), lower power laser therapy (1B), HBOT (1C), ultraviolet therapy, and electric stimulation therapy (2A)</p>

Abbreviations: ABPI, ankle-brachial pressure index; CINAHL, Cumulative Index of Nursing and Health Literature; DFU, diabetic foot ulcer; HBOT, hyperbaric oxygen therapy; RCT, randomized controlled trial; VLU, venous leg ulcer.