

The Role Community-Based Health Care Providers Play in Managing Hard-to-Heal Wounds

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Background

- It is common for community-based healthcare providers (CHPs), who are often not specialists in wound care, to deliver initial and ongoing management for a wide range of wound types and diverse populations.
- Wounds in any setting can rapidly transition to a stalled, hard-to-heal wound (HTHW) that is not following a normal healing trajectory.¹
- Failure to recognize or address issues that can cause delayed healing can lead to increased costs, healthcare utilization and suffering.²

Purpose

- Present actionable evidence-based recommendations for CHPs in identifying and treating HTHWs.

Methods

- To encourage early intervention by CHPs, a panel of wound care experts met to develop simplified evidence-based recommendations for CHPs when confronted with hard-to-heal wounds.
- Participants consisted of 8 nurses, 1 physical therapist and 3 physicians from Europe, North America, Australia, and South Africa.

Results

- A HTHW is a wound that fails to progress towards healing with standard therapy in an orderly and timely manner,³ and should be referred to a qualified wound care provider for advanced assessment and diagnosis if not healed or reduced in size by 40-50% within 4 weeks.
- The CHP can identify a HTHW by common characteristics.
- HTHWs occur in patients with multiple comorbidities, and display increases in exudate, infection, devitalized tissue, maceration or pain, or no change in wound size.
- CHPs can play an important initial role by seeing the individual's HTHW risk, addressing local infection, and providing an optimal wound environment.⁴

Results (Cont'd)

- An easy-to-follow table was developed for the CHP to identify, evaluate and treat HTHWs (Table 1). The document:
 - identifies intervention expectations between the CHP and the wound care specialist based on evidence-based recommendations
 - provides a systematic approach that guides the CHP through identified processes to achieve results or suggest consultation/referral
 - incorporates a basic toolkit with items easily obtainable in common office/clinic practice settings necessary to identify, treat and reduce barriers to healing
- An algorithm using visual HTHW clinical cues (Figure 1) is also presented to augment Table 1 and address CHPs with different learning styles.

Conclusions

- CHPs can identify HTHWs and initiate good standards of care using recommendations developed by wound care experts.
- These tools encourage delivery of appropriate early interventions that can improve overall healthcare efficiency and cost.

References

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Table 1. Recommended actions and toolbox items for CHPs providing Standard of Care within TIMERS framework (Adapted from Atkin, et al⁵)

| Assess patient holistically (6) | | | | | |
|--|---|--|---|---|---|
| Assess blood supply to the HTHW | | | | | |
| Standard of Care | ✓ Palpate pulses | ✓ Capillary refill | ✓ Pallor/rubor test | ✓ Audible hand-held doppler waveform | |
| Advanced Wound Care | ✓ ABPI | ✓ TBPi | ✓ TCPO ₂ , if available | ✓ Skin thermometry | |
| Identify and Treat the underlying cause/s, barriers and risk factors of a HTHW | | | | | |
| T: Tissue | I: Infection and/or Inflammation (4) | M: Moisture | E: Edge | and Regenerati | S: Social Situation |
| Observation: • Nonviable tissue (eschar, slough), versus pink/red granulation tissue | Observation: • Signs of tissue inflammation Clinical signs and symptoms of infection/bioburden or positive wound specimen laboratory results with delayed wound healing | Observation: • Wound very wet or very dry, versus moist | Observation: • Edges may be tunneling, macerated, undermined, rolled, cliffed or callused, versus advancing | Observation: • Wound fails to progress toward healing within 4 weeks* of SOC | Observation: • Lack of understanding and adherence by the patient to the care plan • Malodorous wound • Increased and/or new/uncontrolled pain |
| Action* • Cleanse per local policy • Use antiseptic/antimicrobial agent | Action* • Debride nonviable tissue • Reduce, control or resolve bioburden (microorganisms) and/or inflammation, locally and/or systemically according to assessment, observation and investigations • Suppress inflammation | Action* • Manage moisture levels | Action* • Manage wound edges according to observation to promote advancement of wound edges | Action* • Stimulate tissue growth to close the wound | Action* • Modify patient and social-related risk factors • Reduce odor • Manage pain |
| Observation: • Periwound may be hyperkeratotic, very dry, macerated, erythemic, infected, versus healthy | | | | | Action* • Assess • Cleanse • Treat and protect periwound • Promote a healthy and intact periwound to enhance wound healing |
| *Refer to an interdisciplinary wound care team if action is beyond your scope of practice and/or if wound is not healing after implementing action | | | | | |
| Standard of Care (CHPs) | | | | | |
| • Consider an antiseptic solution cleanser with low cytotoxicity as per local policy OR • Minimally, cleanse wound and periwound with saline | • Remove unhealthy tissue mechanically with gauze or a debridement pad AND/OR • Consider autolytic debridement as per clinician skills, patient choice and circumstance | • Address excess proteases • Use protease-modulating dressing with or without topical antimicrobial if appropriate • Cleanse, soak and manage infection according to level of bioburden using infection continuum; use medicated/antimicrobial dressings as per wound type • Based on culture sensitivity, consider referral for further systemic antibiotic management | • Apply appropriate dressing/therapy based on observation and assessment of moisture level. • Engage and empower patient/family/circle of care in care • Provide active listening • Consider referral for pain management and/or special dressings to address odor | • If edges are rolled, cliffed or callused, debride as appropriate or refer to a qualified wound care provider for debridement • If tunneling or undermining noted, ensure spaces are loosely packed with dressing material and refer to qualified wound care provider • If periwound maceration, ensure dressings are applied correctly and use barrier product on periwound | • Refer to a qualified wound care provider if wound has not reduced by 40-50% by week 4 for advanced therapies • Encourage patient to communicate their ideas, concerns and expectations • Engage and empower patient/family/circle of care in care • Provide active listening • Consider referral for pain management and/or special dressings to address odor |
| • Topical antiseptic solution, such as hypochlorous acid, PHMB or other available • Sterile normal 0.9% saline | • Gauze • Debridement pad • Hydrocolloid or foam dressing for shallow wounds • Hydrogel or alginate/gelling fiber dressing with foam dressing cover for deeper wounds | • Protease-modulating dressing (collagen) • Antimicrobial dressings: • Non-medicated antimicrobial dressings, e.g., hydrogels, hydrocolloids or super-absorbent dressings as per wound type • Medicated antimicrobial dressings, e.g., concentrated surfactant gels, PHMB, or medical grade honey | • Highly draining wound: superabsorbent dressing • Medium drainage: alginate/gelling fiber dressing and/or foam dressings • Minimal drainage: hydrocolloid, foam dressing, acrylic dressing, composite dressing • Dry wound: hydrogel, hydrogel impregnated dressing | • Barrier product (liquid barrier film, including cyanoacrylates) | • Periwound moisturizer • Barrier product (liquid barrier film, including cyanoacrylates) • Antifungal component |
| Desired outcome | • Clean periwound and wound • Viable tissue | • Reduced and controlled level of bioburden • Controlled or resolved inflammation | • Moist wound healing of bioburden • Advancing edges. • Reduction in wound size. | • Proliferation of granulation and epithelization • Wound closure | • Social- and patient-related risk factors managed to optimize outcomes; to include no pain, no odor |
| Review / Refer if the desired outcomes are not achieved and/or the wound has not reduced by 40-50% by week 4. Hard-to-heal wounds should be managed by a qualified wound care provider and an interdisciplinary health care professional team. | | | | | |

*contraindicated in peripheral arterial disease and/or ABPI<0.5

SOC: standard of care; ABPI: ankle brachial pressure index; TBPi: toe pressure brachial index; CHP: community-based healthcare provider; PHMB: Polyhexanide/polyhexamethylene biguanide

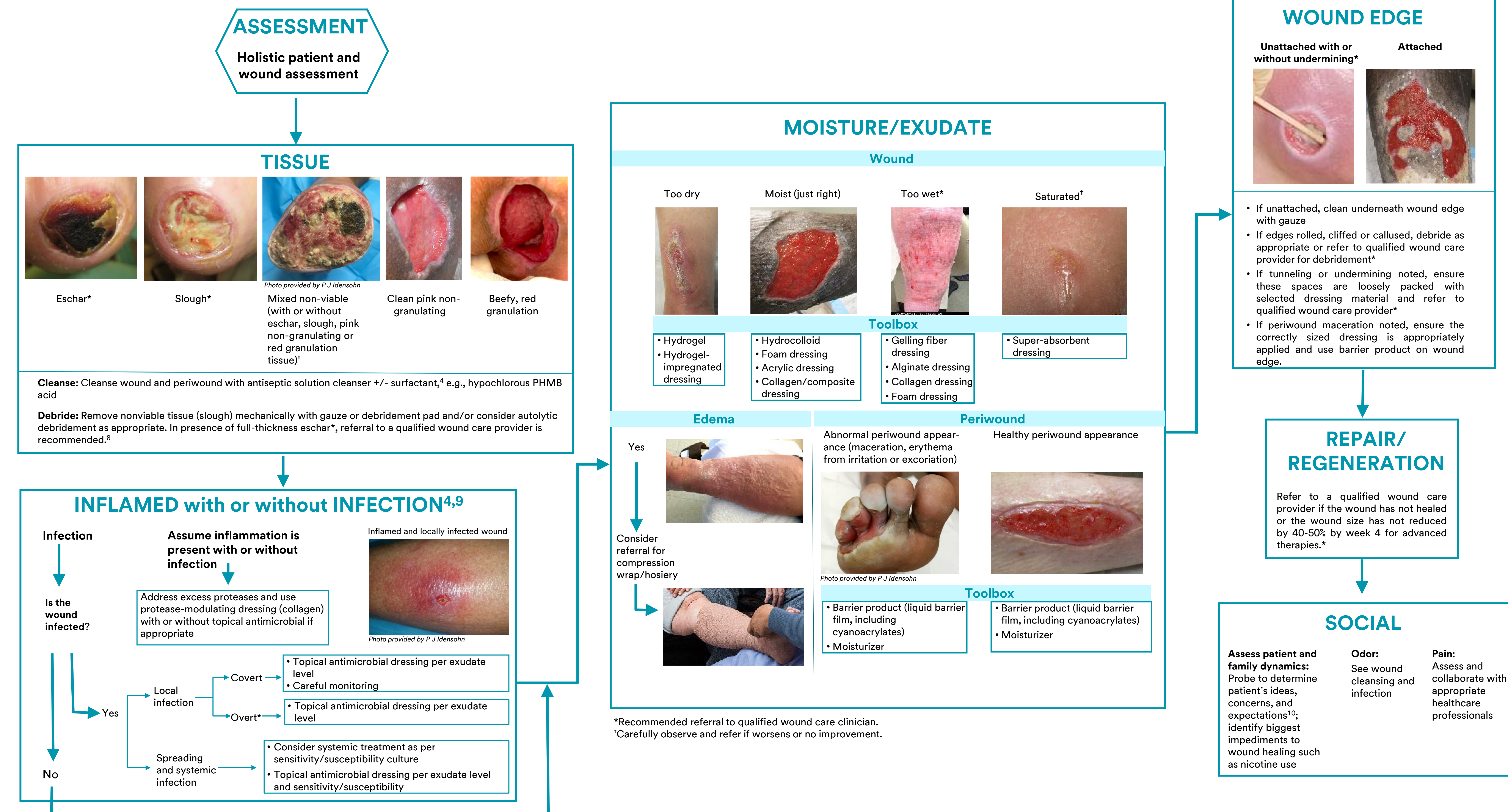


Figure 1. Algorithm using visual HTHW clinical cues
PHMB: Polyhexanide/polyhexamethylene biguanide