Smith + Nephew Sponsored Learning:

A Route to More Effective Chronic Wound Management

Presenters: Caroline Dowsett, PhD MSc BSc (Hons) Dip N DN RGN; Kevin Woo, PhD RN NSWOC WOCC(C) FAPWCA

Caroline Dowsett works as a clinical nurse specialist in tissue viability for East London Foundation Trust where she is also the clinical lead for the leg ulcer service. Caroline also works globally as an independent nurse consultant in wound care. She has worked in the field of wound care for over 25 years.

Kevin Woo is an associate professor at Queen's University, School of Nursing, School of Rehabilitation therapy in Kingston, Ontario. He is the Regional Director – North American and Chair of the Research Committee for the International Skin Tear Advisory Panel (ISTAP). He is the web editor for the Advances in Skin and Wound Care website.

Hard-to-heal Wounds[1,2]

Hard-to-heal wounds are extremely common in our health-care systems. Often, these wounds are not recognized early enough, leading to reduced patient quality of life, increased clinical workloads and higher costs. Some of the most challenging components of chronic wound management are prevention and management of infection, biofilms and progression of the wound to a healing trajectory. Despite best practice principles, including addressing the cause, performing tissue debridement, managing infection and moisture balance, the edge of wound may not advance. A more proactive approach to early assessment and intervention can improve patient outcomes and is much more cost effective.

Infection[3]

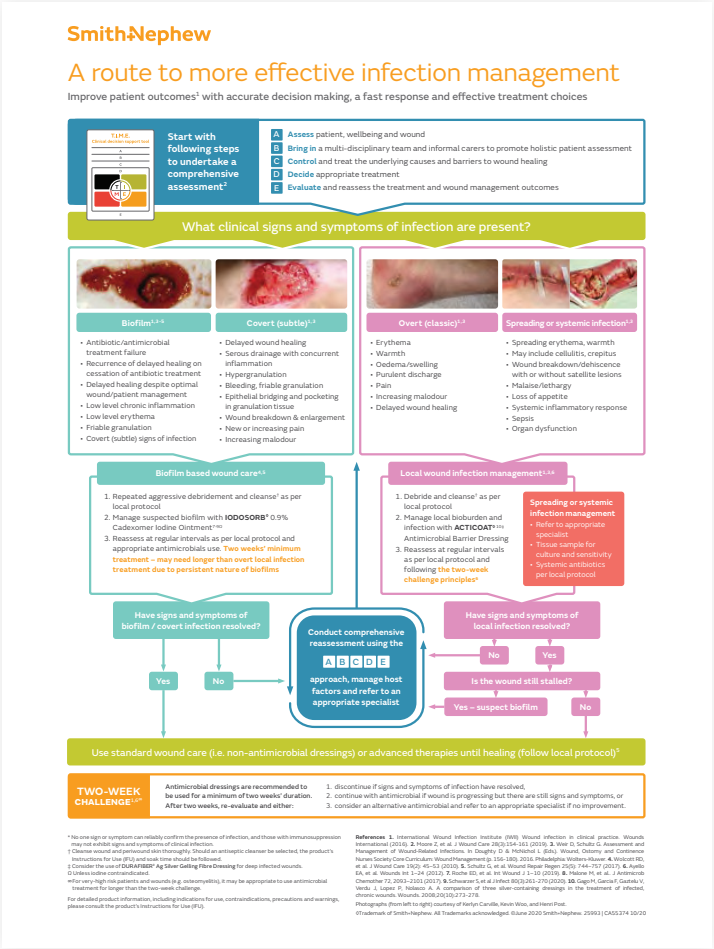
Chronic wounds are susceptible to infections for several reasons:

- Chronic wounds provide an ideal environment for bacteria and fungi to grow.
- Delayed wound closure increases the risk of continued exposure to infection-causing pathogens, leading to complications such as increased risk of fecal contamination in pressure injuries.

Chronic Wound Pathways

It has been shown that implementation of an evidence-informed treatment pathway leads to improved health outcomes. In 2020, Dowsett et al. developed The Infection Management (IM) Pathway, a route to more effective infection management, which is one of the first tools that combines the diagnosis and treatment of local infection and biofilm and offers a consistent approach to care (Figure 1).[1,2]

Figure 1: The Infection Management Pathway



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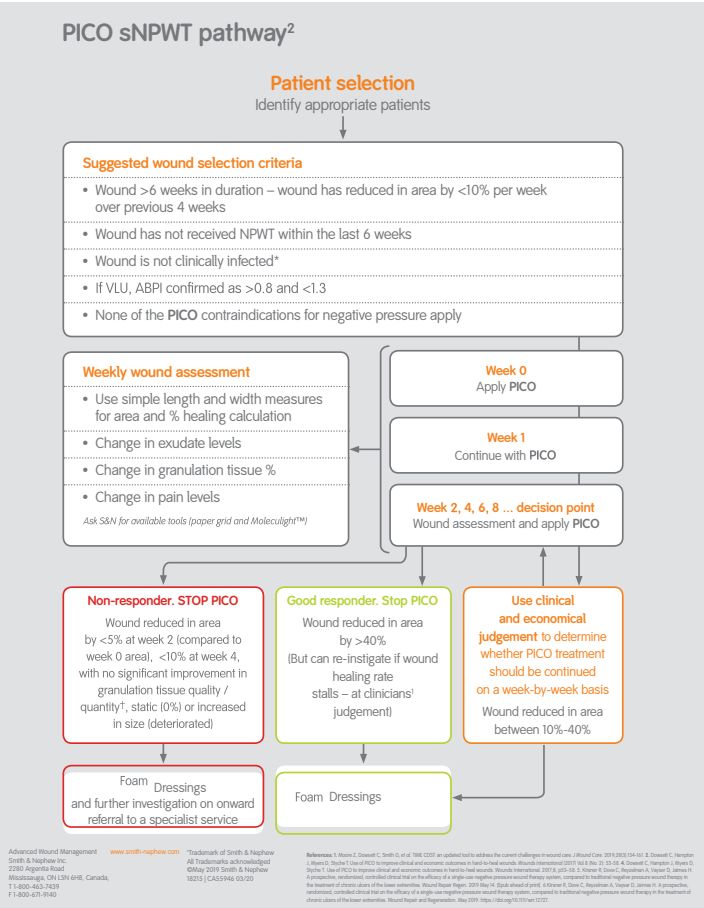
The IM Pathway is designed to:

- Promote comprehensive patient and wound assessment, including for signs or symptoms of local infection or suspected biofilm
- Guide management of patients with infected wounds or wounds with biofilm
- Simplify clinical decision making and facilitate best practice among all health-care providers, including non-wound care specialists
- Increase continuity and consistency in care
- Encourage and support antimicrobial stewardship practices

In 2017, Dowsett et al.[2] developed and implemented a pathway for use of single use disposable negative pressure wound therapy (sNPWT) to "kick start" hard-to-heal wounds (Figure 2). PICO sNPWT significantly improved the healing trajectory of hard-to-heal wounds compared with standard care, resulting in cost savings and reduced nursing time. McClusky et al., replicated this study with similar outcomes.[4] Further, both studies confirmed that the earlier PICO sNPWT is initiated (< 3 months) the greater the probability of wound healing.

Figure 2: The PICO sNPWT pathway



Traditional NPWT Compared to sNPWT[5]
In a multi-centre randomized, controlled study, use of PICO sNPWT helped to significantly reduce wound area, depth and volume compared with tNPWT in patients with lower-extremity wounds and twice as many wounds treated with PICO healed compared to tNPWT.

The PICO pathway is designed to:

- Support clinical decision-making in the management of hard-to-heal wounds
- Improve healing outcomes
- Encourage clinicians to think about taking a different approach to hard-to-heal wounds
- Focus on progressing a stalled wound to healing as opposed to simply managing wounds of longer duration
- Pinpoint at what stage clinicians need to make a decision about whether or not to continue therapy
- Emphasize the importance of early intervention

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