

Standing the test of T.I.M.E.: the basics of wound bed preparation



The T.I.M.E. concept¹

- T.I.M.E. was conceived in 2003 by a group of wound management experts including Schultz, Sibbald and Falanga, who proposed that wound bed preparation (WBP) provided a rational and systematic approach to the management of non-healing wounds (Figure 1)¹

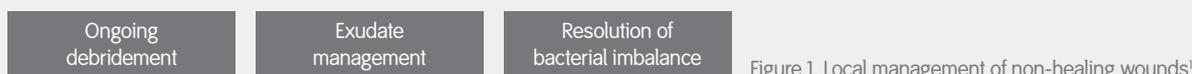


Figure 1. Local management of non-healing wounds¹

- The concept of WBP identifies several barriers that obstruct wound healing and recognises that these need to be removed before wound healing can take place¹
- T.I.M.E. outlines the key principles of wound bed preparation in a practical reference guide that links clinical observations to recommended interventions, their potential effects and the target outcome¹



Adoption and adaptation of T.I.M.E.^{2,3}

- In 2005, the T.I.M.E. concept was updated by Schultz et al., to reflect increased understanding of migration of the epidermal edge (Figure 2) and was adapted to incorporate a wound assessment tool²

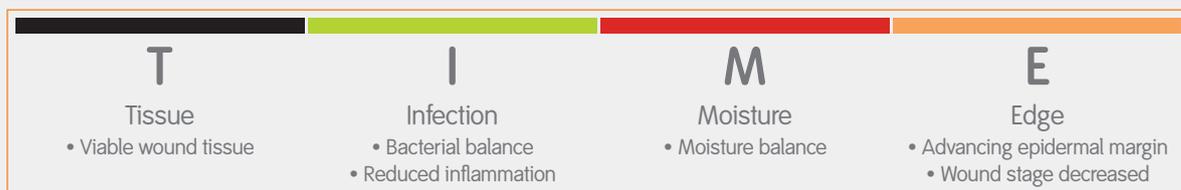


Figure 2. Mature T.I.M.E. paradigm for chronic wound management with clinical outcome²

- Gathering evidence to support the wound bed preparation approach for chronic wounds was also identified as a priority to justify the additional resources required to improve patient outcomes using T.I.M.E.²
- In the same year, a patient-centred care approach was introduced by Dowsett and Newton, to complement the T.I.M.E. approach to effective wound bed preparation and facilitate treatment success (Figure 3)³



Figure 3. Wound bed preparation care flowchart incorporating T.I.M.E. Adapted from Dowsett C, et al. 2005³

Evidence in focus (continued)



Evolution of T.I.M.E.⁴

- Since its introduction, several advances in our understanding of chronic wounds have been incorporated into T.I.M.E. and adopted as best clinical practice, these include:⁴
 - Recognising the need for repetitive maintenance debridement and wound cleansing (using negative pressure wound therapy and hydrosurgery)
 - Acceptance of bacterial continuum and biofilm concepts, plus awareness of the need to address increasing antibiotic resistance with wider use of topical antiseptics
 - Understanding the importance of moisture balance regulation and protecting peri-wound skin using advanced dressings
 - Development of novel treatment modalities to improve epithelial advancement, which is a clear sign of wound healing



The future of T.I.M.E.

According to Leaper et al., the T.I.M.E. concept remains relevant for guiding clinical practice in chronic wound management to achieve successful treatment outcomes and continues to evolve to reflect advances in the field of wound therapy⁴

References:

1. Schultz GS, Sibbald RG, Falanga V, et al. Wound bed preparation: a systematic approach to wound management. *Wound Repair Regen.* 2003;11(Suppl 1):S1-28; 2. Schultz G, Mozingo D, Romanelli M, Claxton K. Wound healing and T.I.M.E.; new concepts and scientific applications. *Wound Repair Regen.* 2005;13(Suppl 4):S1-11; 3. Dowsett C, Newton H. Wound bed preparation: T.I.M.E. in practice. *Wounds UK.* 2005;1(3):58-70; 4. Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R. Extending the T.I.M.E. concept: what have we learned in the past 10 years? *Int Wound J.* 2012;9 (Suppl 2):1-19.

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