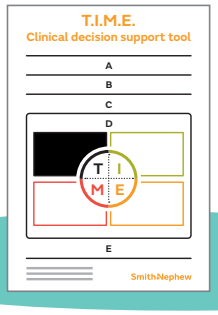
Decide the appropriate treatment

(following the T.I.M.E.[1,2] wound bed preparation principles)

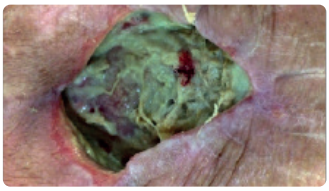


T: Tissue non-viable

1. Identify the barrier to wound healing (the problem): the presence of non-viable tissue results in delayed healing

Slough[3]

- Usually yellow or tan
- Moist, mucous-like or stringy, fibrinous



Necrotic/eschar[3]

- Black, brown, grey
- Often dry, leathery or hard crusty; may be moist, soggy

2. Select intervention: Debridement (removal of non-viable tissue)[4]

Autolytic

- **Dry wound:** Apply INTRASITE◊ Gel or INTRASITE Gel Conformable dressing. Cover with secondary dressing
- **Light/moderate exudate:** Apply dressing from ALLEVYN◊ Foam Dressing range*
- **Heavy exudate:** DURAFIBER◊ Gelling Fiber Dressing

Sharp (by qualified clinician)

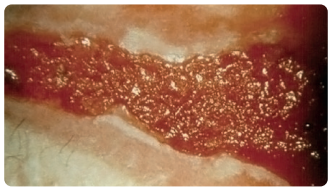
- Use of sterile instruments (scissors, forceps, scalpel) to remove loose nonviable tissue
- May be used in conjunction with enzymatic debridement applied between episodes

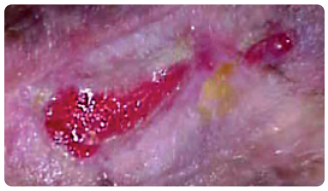
Surgical (by qualified clinician)

- VERSAJET◊ II Hydrosurgical System

NOTE: Do not debride intact eschar on the heels of ambulatory individuals or those with arterial insufficiency

3. Wound management outcome (the goal): Viable, healthy wound bed[5]





Smith+Nephew does not provide medical advice. The information presented is not, and is not intended to serve as, medical advice. For detailed device information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use. It is the responsibility of healthcare professionals to determine and utilise the appropriate products and techniques according to their own clinical judgment for each of their patients.

* Fill dead space with appropriate dressing.

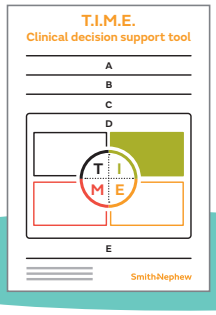
References: 1. Schultz GS, Sibbald RG, Falanga V, *et al.* Wound bed preparation: a systematic approach to wound management. *Wound Rep Reg* (2003);11:1-28. **2.** Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R. Extending the TIME concept: what have we learned in the past 10 years? Int Wound J 2012; 9 (Suppl. 2):1–19. 3. **3.** Bates-Jensen B. Assessment of the Patient with a Wound. In Doughty D & McNichol L (Eds.). *Wound, Ostomy and Continence Nurses Society Core Curriculum: Wound Management.* 2016. p. 38-68. 2. Philadelphia: Wolters Kluwer. **4.** Ramundo J. Principles and Guidelines for Wound Debridement. In Doughty D & McNichol L (Eds.). *Wound, Ostomy and Continence Nurses Society Core Curriculum:* Wound Management (p. 145-155). 2016. Philadelphia: Wolters Kluwer. **5.** World Union of Wound Healing Societies (WUWHS) (2020) *Strategies to reduce practice variation in wound assessment and management: The TIME Clinical Decision Support Tool. London: Wounds International.*

Advanced Wound Management, Smith+Nephew Medical Ltd, Croxley Park, Building 5, Hatters Lane, Watford, Hertfordshire WD18 8YE, UK.
30458 Published May 2021 ©2021 Smith+Nephew. ◊Trademark of Smith+Nephew. All Trademarks acknowledged.

Smith+Nephew

Decide the appropriate treatment

(following the T.I.M.E.[1,2] wound bed preparation principles)



I: Infection or inflammation

1. Identify the barrier to wound healing (the problem): bacterial burden and/or prolonged inflammation result in delayed healing

Clinical indications of biofilm[3]

Biofilm signs

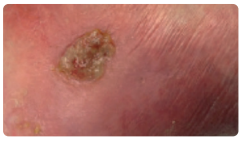
- Antibiotic/antimicrobial treatment failure
- Recurrence of delayed healing on cessation of antibiotic treatment
- Delayed healing despite optimal wound/patient management
- Low level chronic inflammation
- Low level erythema
- Poor quality granulation
- Subtle (covert) signs of infection

Local infection subtle (covert) and classic (overt) signs and symptoms (S/S)[3,4]

Covert (subtle) S/S

- Delayed wound healing
- Serous drainage with concurrent inflammation
- Hypergranulation
- Bleeding, friable granulation
- Epithelial bridging and pockets of granulation tissue
- Wound breakdown and enlargement
- New or increasing pain
- Increasing malodour

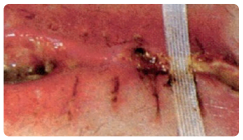
Overt (subtle) S/S

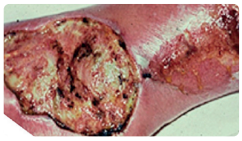


- Erythema
- Warmth
- Oedema/swelling
- Purulent discharge
- Pain
- Increasing malodour

Spreading or systemic infection Signs and symptoms[3]

S/S Spreading or systemic infection





- Spreading erythema, warmth
- May include cellulitis, crepitus
- Wound breakdown/dehiscence with or without satellite lesions
- Malaise/lethargy
- Loss of appetite
- Systemic inflammatory response
- Sepsis
- Organ dysfunction

2. Select intervention: Antimicrobial agents or antimicrobial agents plus systemic antibiotics

Covert (subtle) S/S of infection or S/S of biofilm (see list above)

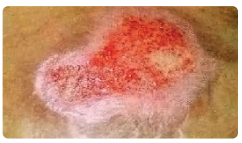
- Cleanse and debride the wound per local protocol[3,4]
- Manage suspected biofilm with IODOSORB◊ 0.9% Cadexomer Iodine Ointment or IODOFLEX◊ 0.9% Cadexomer Iodine Dressing[5-7] *
- Reassess at regular intervals as per local protocol[8]

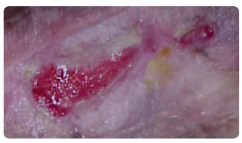
Overt (classic) signs, spreading or systemic sign of infection (see list above)

- Debride and cleanse the wound per local protocol
- Manage local bioburden and infection with ACTICOAT◊ Antimicrobial Barrier Dressing to wound bed
- Administer appropriate antibiotics per local protocol[9]
- Reassess at regular intervals as per local protocol
- For spreading or systemic infection: refer to appropriate specialist; administer appropriate antibiotics per local protocol

If no improvement after 2 weeks, reassess patient and re-evaluate wound treatment[10]
Chronic wounds with overt, spreading or systemic infection may contain biofilm[2]

3. Wound management outcome (the goal): Non-inflamed, non-inflected wound[5]





Smith+Nephew does not provide medical advice. The information presented is not, and is not intended to serve as, medical advice. For detailed device information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use. It is the responsibility of healthcare professionals to determine and utilise the appropriate products and techniques according to their own clinical judgment for each of their patients.

* Unless iodine is contraindicated.

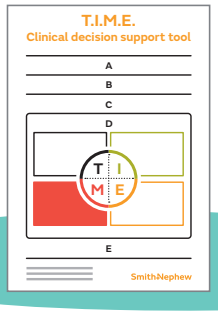
References: 1. Schultz GS, Sibbald RG, Falanga V, *et al.* Wound bed preparation: a systematic approach to wound management. *Wound Rep Reg* (2003);11:1-28. **2.** Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R. Extending the TIME concept: what have we learned in the past 10 years? Int Wound J 2012; 9 (Suppl. 2):1–19. **3.** International Wound Infection Institute (IWII) Wound infection in clinical practice. *Wounds International* 2016. **4.** Weir D, Schultz G. Assessment and Management of Wound-Related Infections. In Doughty D & McNichol L (Eds.). *Wound, Ostomy and Continence Nurses Society Core Curriculum: Wound Management* (p. 156-180). 2016. Philadelphia: Wolters-Kluwer. **5.** Roche ED, *et al.* Cadexomer iodine effectively reductes bacterial bifilm in porcine wound *ex vivo* and *in vovo. Int Wound J* 1-10 (2019). **6.** Malone M, *et al.* Effect of cadexomer iodine on the microbial load and diversity of chronic non-healing diabetic foot ulcers cimplicated by biofilm *in vivo. J Antimicrob Chemother* 72, 2093-2101 (2017). **7.** Schwarzer S, *et al.* The efficacy of topical agents used in wounds for managing chronic biofilm infections: A systematic review. *J Infect.* 80(3): 261-270. **8.** World Union of Wound Healing Societies (WUWHS) (in press) 2020. Strategies to reduce practice variation in wound assessment and management: The TIME Clinical Decision Support Tool. Meeting London: *Wounds International.* **9.** Stotts N. Bioburden infection . In Baranoski S & Ayello E (Eds) *Wound Care Essentials: Practice Principles.* (4rd Ed).2016. p 121-148. Ambler, PA: Wolters Kluwer. **10.** Ayello EA, *et al.* International consensus. Appropriate use of silver dressings in wounds. An expert working group consensus. *Wounds Int.* 1–24 (2012).

Advanced Wound Management, Smith+Nephew Medical Ltd, Croxley Park, Building 5, Hatters Lane, Watford, Hertfordshire WD18 8YE, UK.
30458 Published May 2021 ©2021 Smith+Nephew. ◊Trademark of Smith+Nephew. All Trademarks acknowledged.

Smith+Nephew

Decide the appropriate treatment

(following the T.I.M.E.[1,2] wound bed preparation principles)

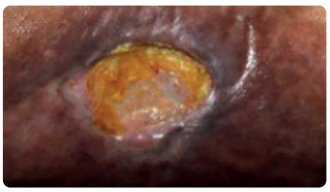


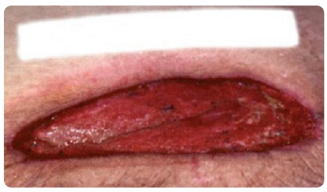
M: Moisture imbalance

1. Identify the barrier to wound healing (the problem): too little or too much exudate

Dry wound[3]

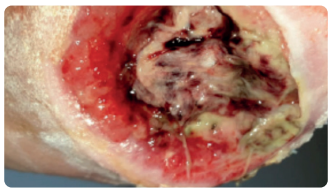
- Takes twice as long to heal (compared to a moist wound)
- Results in higher incidence of infection
- May be painful
- Increases costs





Wet wound[3]

- Chronic wound fluid is pro-inflammatory
- Too much wound exudate results in periwound maceration



2. Select intervention: Restore moisture balance

Dry wound[3]

Hydrate and protect:

- INTRASITE◊ GEL or INTRASITE COMFORMABLE Conformable Hydrogel Dressing*
- Cover with secondary dressing

Light/moderate exudate

Absorb exudate:

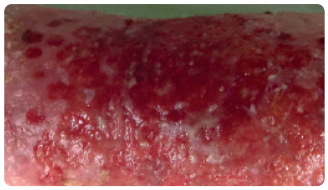
- ALLEVYN◊ GENTLE BORDER Foam Dressing, ALLEVYN GENTLE Foam Dressing, DURAFIBER◊ Absorbent Gelling Fibrous Dressing or PICO◊ Single Use Negative Pressure Wound Therapy System*

Heavy exudate

Identify, document and manage aetiology of excessive wound fluid.
Absorb excessive exudate:

- ALLEVYN LIFE Foam Dressing , ALLEVYN NON-BORDERED Foam Dressing, DURAFIBER Dressing or RENASYS◊ Negative Pressure Wound Therapy System*

3. Wound management outcome (the goal): Optimal moist balance (a moist wound)[4]



Smith+Nephew does not provide medical advice. The information presented is not, and is not intended to serve as, medical advice. For detailed device information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use. It is the responsibility of healthcare professionals to determine and utilise the appropriate products and techniques according to their own clinical judgment for each of their patients.

* Fill dead space with appropriate dressing.

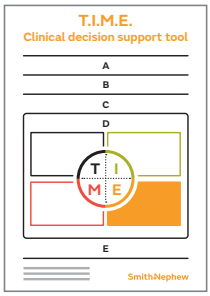
References: 1. Schultz GS, Sibbald RG, Falanga V, et al. Wound bed preparation: a systematic approach to wound management. Wound Rep Reg (2003);11:1-28. **2.** Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R. Extending the TIME concept: what have we learned in the past 10 years? Int Wound J 2012; 9 (Suppl. 2):1–19. **3.** Ermer-Seltun J, Rolstad BS. General Principles of Topical Therapy. In Doughty D & McNichol L (Eds.). Wound, Ostomy and Continence Nurses Society Core Curriculum: Wound Management (p. 107-130). 2016, Philadelphia: Wolters-Kluwer. **4.** World Union of Wound Healing Societies (WUWHS) (2020) Strategies to reduce practice variation in wound assessment and management: The TIME Clinical Decision Support Tool. London: Wounds International.

Advanced Wound Management, Smith+Nephew Medical Ltd, Croxley Park, Building 5, Hatters Lane, Watford, Hertfordshire WD18 8YE, UK.
30458 Published May 2021 ©2021 Smith+Nephew. ◊Trademark of Smith+Nephew. All Trademarks acknowledged.

Smith+Nephew

Decide the appropriate treatment

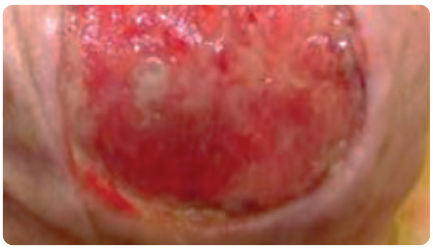
(following the T.I.M.E.[1,2] wound bed preparation principles)



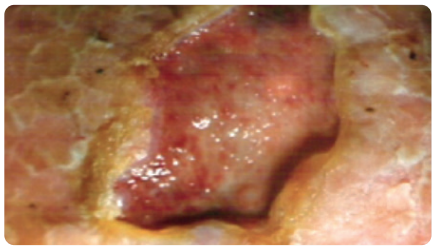
E: Edge of wound non-advancing

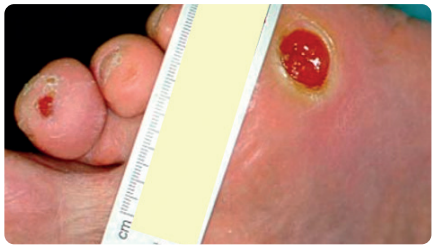
1. Identify the barrier to wound healing (the problem): non-advancing or abnormal wound edge[3]

Rolled wound edge (epibole)

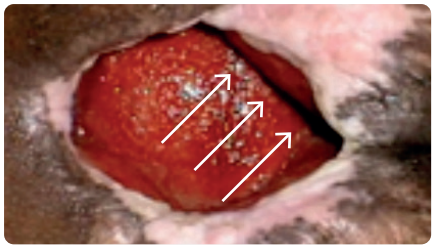


Callus / hyperkeratosis





Unattached (undermining, tunneling)



2. Select intervention: Promote epithelialization and healthy periwound skin

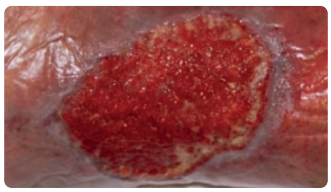
Direct intervention on wound edge (By qualified clinician)

- Sharp/surgical debridement[4]
- Chemical cauterization[4]

Other intervetnions

- PICO◊ Single Use Negative Pressure Wound Therapy System or RENASYS◊ Negative Pressure Wound Therapy System*
- PROSHIELD◊ Skin Care Range Range*

3. Wound management outcome (the goal): Advancing edge of wound[4]



Smith+Nephew does not provide medical advice. The information presented is not, and is not intended to serve as, medical advice. For detailed device information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use. It is the responsibility of healthcare professionals to determine and utilise the appropriate products and techniques according to their own clinical judgment for each of their patients.

* Follow manufacturer's instructions for use;

References: 1. Schultz GS, Sibbald RG, Falanga V, *et al.* Wound bed preparation: a systematic approach to wound management. *Wound Rep Reg* (2003);11:1-28. **2.** Leaper DJ, Schultz G, Carville K, Fletcher J, Swanson T, Drake R. Extending the TIME concept: what have we learned in the past 10 years? Int Wound J 2012; 9 (Suppl. 2):1–19. **3.** Ermer-Seltun J, Rolstad BS. General Principles of Topical Therapy. In Doughty D & McNichol L (Eds.). *Wound, Ostomy and Continence Nurses Society Core Curriculum: Wound Management* (p. 107-130). 2016, Philadelphia: Wolters-Kluwer. **4.** World Union of Wound Healing Societies (WUWHS) (2020) *Strategies to reduce practice variation in wound assessment and management: The TIME Clinical Decision Support Tool. London: Wounds International.*

Advanced Wound Management, Smith+Nephew Medical Ltd, Croxley Park, Building 5, Hatters Lane, Watford, Hertfordshire WD18 8YE, UK.
30458 Published May 2021 ©2021 Smith+Nephew. ◊Trademark of Smith+Nephew. All Trademarks acknowledged.

Smith+Nephew