

## WOUND MANAGEMENT FULL CLINICAL GUIDELINE

Reference no.: CG-T/2014/069

### 1. Introduction

In 2017/2018 it was estimated that the NHS managed wound care for 3.8 million patients, at a cost of 8.3 billion per year. This increased 71% since previous data was collected in 2012/13<sup>14</sup>. This data was derived from a cohort of 3000 random patients taken from the THIN database. Though this gives us limited information regarding acute cost of wound care it is pertinent in that it highlights the ongoing cost of wound care for community patients.

### 2. Aim and Purpose

These guidelines are designed to support the standardisation of assessment, management and evaluation of wound care whilst promoting best clinical practice and outcomes for patients presenting with wounds within the Trust. They apply to all healthcare clinicians working within the Trust who provide wound care to patients with acute or chronic wounds. This is a general guide to be followed in conjunction with the clinician's clinical judgment for each individual case.

Each clinician should be able to:

- Begin the assessment process and complete the appropriate documentation.
- Initiate appropriate treatment or management and topical antimicrobial depending on signs and symptoms of the wound.
- Rationalise and ensure the appropriate use of dressing resources.
- Make timely referrals to the appropriate specialists when required.
- Implement appropriate interventions / precautions to always ensure the safety of the patient.

### 3. Definitions, Keywords

**Healing time** - The exact time in which a wound is expected to heal cannot be defined as this is dependent on many factors; this includes size, depth, general health, and well-being of the individual patient.<sup>17</sup>

**Wound** - A break in the skin surface which initiates a process of repair.<sup>1</sup>

**Simple / acute / uncomplicated wounds** - Includes wounds that progress through the normal phases of the repair / healing process in a timely period.<sup>17</sup>

**Chronic wounds** - Wounds that are non-healing or delayed in healing are classified as chronic once they are present for four weeks or longer.<sup>2, 3, 17</sup>

**Leg Ulcer** - A wound below the knee, that has not healed within two weeks. If persistent for two weeks or more it is considered a chronic leg ulcer. In 80% of cases this is exacerbated by underlying venous disease, whilst 15% could be attributed to Arterial disease and 5% were due to other causes such as Diabetes and Rheumatoid arthritis<sup>20, 21</sup>.

**Complicated/complex wounds**- Wounds that are complicated by an underlying disease process i.e. poor circulation, diabetes or auto-immune diseases. The amount of tissue loss, exposure of underlying structures (bone, tendon and muscle, infection), overall poor health and side effects of medications will also contribute to complications and delays to healing<sup>2,18</sup>

**Infection** - The quantitative definition of wound infection asserts that microbial loads of  $>10^5$  colony forming units (CFU) per gram usually results in an infection. This however does not take into consideration the virulence of particular microbes<sup>21</sup>, or wounds healing by secondary intention. It can, however, be considered that wound infection occurs when tissue damage caused by multiplying microorganisms impedes progress and causes local, or systemic immune responses<sup>23, 24</sup>.

**Colonisation** - Limited proliferation of microorganisms that do not invoke a host reaction<sup>23, 24</sup>

**MRSA** – Methicillin Resistant Staphylococcus Aureus

**NPWT** – Negative Pressure Wound Therapy.

#### 4. Clinical guidelines for wound management

##### 4.1 Principles of wound healing

The maintenance of a moist wound healing environment is advocated in the vast majority of cases.<sup>15, 17</sup> The exceptions being in the case of an ischaemic wound which would need to be kept dry and

managed conservatively until the vascular status can be restored or a dry gangrenous wound where auto-amputation is the objective.

Treatment and management regimes should address the issues identified in the holistic assessment process.<sup>17</sup> Management of systemic factors is often more important than local wound care. The use of any dressing in wound care is of little value, unless all factors that may affect wound healing have been identified and addressed.<sup>15, 17</sup>

Wound healing is a dynamic process; on-going evaluation is required to detect changes in a timely manner to implement appropriate interventions.<sup>17</sup>

## 4.2 Patient Involvement

The treatment goals should be agreed with the patient following assessment.<sup>17</sup> Staff will provide patients and/or carers with verbal, and where appropriate, written information regarding their wound management plan and progress at initial and subsequent wound assessments.

## 4.3 Wound Types

### Pressure Ulcers:

If a pressure ulcer has been identified, it should be classified using the EPUAP Classification<sup>12</sup>, and reported on Datix. Refer to the Pressure ulcer policy and guidelines for further details of prevention and management: [opac-retrieve-file.pl \(koha-ptfs.co.uk\)](#)

RDH and LRCH have a pressure ulcer debridement pathway for all large complex category 3 and category 4 pressures (Appendix I). However, the first referral should be to the Tissue Viability team for a holistic assessment and long-term management plan.

Patients that require surgical debridement and are located on Burton sites should be referred for review by the on-site surgical team.

Patients presenting with other wound types such as necrotising fasciitis (likely presenting as a rapidly spreading deep purple rash) should be reviewed **urgently** by the on call surgical team for debridement.

### **Chronic leg ulcers:**

Patients admitted with chronic leg ulcers should have their current wound management plan explored to ensure continuity of care. This may involve contacting people previously involved with their care. This will establish if there have been any specific issues relating to wound healing which need to be monitored or addressed.

Where a diagnosis has not been confirmed appropriate clinical investigations should be arranged to confirm the aetiology of the wound. Refer to the Leg Ulcer Pathway (Appendix II) in the Wound Management Care Pathway for appropriate referrals as these should be made to determine appropriate care/ treatment.

If a patient is admitted with compression bandaging and the reason for their admission is unrelated to this and there is no suspicion of infection, the compression bandages can be left intact for up to 24 hours (if limb(s) offloaded) and the district nurse contacted for relevant history. Please also see Leg ulcer guidelines: [https://derby.koha-ptfs.co.uk/cgi-bin/koha/opac-detail.pl?biblionumber=1059&query\\_desc=kw%2Cwrdl%3A%20leg%20ulcer](https://derby.koha-ptfs.co.uk/cgi-bin/koha/opac-detail.pl?biblionumber=1059&query_desc=kw%2Cwrdl%3A%20leg%20ulcer)

### **Closed surgical incisions:**

All post operative, closed incisions should have a care plan. Please see the care of a patient with a surgical wound care plan found on Net-i, under Tissue Viability care plans.

### **Necrotising fasciitis:**

Necrotising fasciitis is an infection occurring in the subcutaneous soft -tissue; this can progress rapidly and is life-threatening<sup>22</sup>.

Initial management is undertaken by the surgical team, adhering to the necrotising soft tissue infection microbiology guidelines. With the nature of this infectious disease necessitating, in general, extensive debridement, early consultation with both plastic surgery (regarding reconstruction) and tissue viability are recommended.

See Appendix III for Necrotising Fasciitis Associated Wound Management

All patients treated with prontosan soaked kerlix should have the appropriate care plan in place. This is available on NETi tissue viability page and can also be seen in Appendix IV

### **Large open wounds, including dehisced surgical wounds:**

Large open wounds may be as a result of extensive debridement or wound dehiscence.

Wounds that have been surgically debrided may be left open due to infection or having insufficient tissue to allow closure.

Wound dehiscence is a partial or total separation of wound edges that have been previously approximated using sutures, clips or adhesive.

Large open wounds are often complex, and as such should be referred to the Tissue Viability team electronically via Extramed on Derby sites and Meditech on Burton sites.

The Tissue Viability nurse will assess suitability for Negative Pressure Wound Therapy (NPWT), following the appropriate guidelines : [opac-retrieve-file.pl \(koha-ptfs.co.uk\)](http://opac-retrieve-file.pl(koha-ptfs.co.uk))

If NPWT is thought to be unsafe or not practical the Tissue Viability Nurse may choose to follow the care plan for Prontosan/Kerlix roll. The Tissue Viability nurse would commence treatment and review regularly with clinical staff completing the dressings in between. Please see Appendix V or Neti.

### **Management of open and closed haematoma's:**

In high-risk patients, a haematoma is a severe, acute wound which needs prompt action to stop the bleeding, reduce the extent of tissue loss and reduce the risk of systemic infection and sepsis.

Haematoma's can present as a bruise but also as painful, spongy, rubbery, lump-like lesions; which can be small or large; deep within the tissues or just under the surface of the skin. Without effective management a haematoma can progress to partial or full thickness skin loss and may require long term wound management. For management guidance see Appendix V.

### **Management of Skin Tears:**

Skin tears are painful acute wounds defined as “a traumatic injury occurring principally on the extremities of older adults as a result of shearing or friction forces, which separate the epidermis from the dermis

(partial-thickness wound) or which separate both the epidermis and dermis from underlying structures (full-thickness wound)”<sup>19</sup> Please see Appendix VI for skin tear classifications.

### **Fungating/Bleeding wound:**

Fungating wounds are a result of advanced cancer infiltrating the skin. They can include the skin, underlying tissues, and blood or lymph vessels. They can be painful, produce high levels of exudate, and be malodorous. Please see Appendix VII for wound management of fungating wounds

Fungating wounds may also bleed extensively, please see Appendix VIII for the use of tranexamic acid in the treatment of bleeding, fungating wounds.

## **4.4 Best practice in optimizing wound care.**

### **Standards for Documentation of Assessment:**

Staff should undertake and document a full social and medical history as well as a wound assessment within **12 hours** of admission or identification of a new wound unless sepsis is suspected in which case ALL dressing should be removed immediately on admission.

The Wound Management Care Pathway (**WPH 1697** Derby sites only) and the Wound Assessment form on Meditech v6 (Burton sites), should be used to document wound characteristics, care objectives, management, and preventative interventions to help address symptoms or adverse factors which may delay healing of the wound.

A Wound Management Care Pathway documentation should include:

- Type of wound and aetiology of wound
- Location of wound
- Size of wound
- Appearance of wound bed; presence of slough, necrosis, granular tissue, hematomas or exposed tendons or bone
- Description and volume of exudate

- Presence of infection, pain, malodour, or foreign body.
  - State of surrounding skin and alterations in sensation.
  - The individual and their carer, if they permit, will be informed of the outcomes of the assessment, and will be supported in the decision making for potential management options.
- 
- Ensure that pain is assessed and that interventions to help monitor and control pain effectively are in place, referring to pain team if necessary.<sup>17</sup>

Smith and Nephew have developed a useful clinical decision support tool using the acronym T.I.M.E. This tool can be used as a structure for examining areas to focus on when managing chronic wounds. Please see Appendix IX or visit: [T.I.M.E. Clinical Decision Support Tool | Smith+Nephew USA \(smith-nephew.com\)](#)

### **Aseptic Non-Touch Technique / ANTT:<sup>9</sup>**

ANTT principles are to be maintained when dressing all wounds, to reduce the risks of direct infection or cross contamination as per infection control standard.

When dealing with more than one site, separate sterile gloves should be worn for each wound and separate dressing packs if the wounds are not in proximity.

Avoid working over a likely source of contamination i.e., a stoma site.

Some wounds may require two staff members to ensure that dressings can be applied without risk of cross contamination. Staff should aim to dress such wounds when additional help is available.

ALL wounds should be kept covered with a dressing or sterile dressing towel to prevent cross contamination if left exposed for a period of time.

Avoid removing multiple dressings for a Ward Round, if this is necessary, wounds should not be left exposed for long periods of time due to the risk of infection.

### **Wound Cleansing:**

The primary objective of wound cleansing is to remove foreign materials, debris and reduce bioburden.<sup>1</sup>

Wounds that have healthy granulating or epithelialising tissue do **not routinely** require cleansing as the wound's exudate facilitates this.<sup>1</sup>

Wounds should not be cleansed with products that potentially leave fibers in the wound e.g.,

cotton wool / cotton wool containing products.

Where necessary, chronic ulcers such as leg ulcers may be washed in tap water using a shower or washed in a bucket lined with a plastic liner.<sup>8</sup>

UHDB recommends the use of sterile saline for wounds that have been present for less than four weeks and those that require irrigation.

### **Photographing wounds:**

It is best practice to photograph all hospital acquired pressure ulcers category 3 and above and ideally this should be done on admission or when the ulcer is first identified and prior to discharge. Community acquired pressure damage can be considered for medical photography particularly if the damage is significant or if there are safeguarding concerns. Category 2 ulcers should be photographed if over diffuse areas or are difficult to describe due to anatomical site.

Appropriate consent should be gained according to the intended use of the images, e.g., records, teaching, publication.

Patient consent should be gained by the requesting consultant, doctor, or nurse prior to the photography session. An official consent form must be completed containing the patient/guardian signature as well as that of the requesting clinician.

If a patient is unable to sign but photographs are judged to be in the patient's best interest e.g., safeguarding issues, then the clinician can sign the card to this effect.

Photographs should only be viewed if it is relevant to the patient's care or treatment.

Please refer to Clinical photography consent and confidentiality policy:

[Photographic & Video Recording Consent and Confidentiality Policy \(koha-ptfs.co.uk\)](http://koha-ptfs.co.uk)



## Evaluations of Wound Management:

Staff should document objective evaluations of the wounds progress at each dressing change and recognise and report if changes are better or worse. These changes should be recorded in the Wound Management Care Pathway or on the Wound Assessment form on V6.

If the wound is not making expected progress, staff should reassess and amend care where appropriate, or if they are unable to determine the cause of failure to make expected progress, refer to TV Champion or appropriate multidisciplinary specialist to assess and advise.

## Function of Dressings:

Knowledge of how dressings work, and their limitations is fundamental to appropriate selection and usage to provide the optimum wound healing environment.<sup>15,17</sup> The Trust's Dressings Formulary has been developed in collaboration with the East Midlands Tissue Viability Group using an agreed Wound Management Product Evaluation Standard Operating Procedure.<https://neti.uhdb.nhs.uk/az-nc-corp-nursing-tv-wound-care-formulary>

## 4.5 Management of Infected Wounds

All wounds should be assessed at each review, for signs of infection. Any signs of infection should be acted on swiftly, and an appropriate management plan sought. To recognise infection, the clinician should look for:

- Purulent discharge.
- Erythema (Redness).
- Swelling.
- Increased malodour.
- New or increased pain.

Other covert signs may include:

- Friable tissue (granular tissue that is delicate and bleeds easily when touched).
- Epithelial bridging/pockets.
- Increased pain / altered sensation.
- Delayed healing.
- Wound breakdown.

If infection is suspected, please follow the Flowchart in appendix X.

Additional guidance for infected leg ulcers can be found in Appendix XI

Extra vigilance is required to monitor wound progress as some patients will not exhibit the classic signs of infection. High risk patients include:

- Neutropenic patients
- Diabetic patients
- Patients with multiple co-morbidities
- Patients with unmanageable incontinence
- Patients receiving chemotherapy, radiotherapy.
- Patients with dirty wounds, example bites, RTA's traumatic wounds/skin flaps, bowel surgery
- Patients with compromised circulation
- Patients with metal prosthesis

If sepsis is suspected, all wound dressings should be taken down and all wounds reviewed. This includes compression bandaging and NPWT. If NPWT is removed at a time when suitable staff are not available to redress, the alternative dressings section in the NPWT care plan should be adhered to.

### **Wound Swabbing:**

Wounds are not to be routinely swabbed unless the patient has a previous history of MRSA, or a wound infection is suspected.

Routine swabbing of wounds is not recommended.<sup>15</sup> Approximately 10,000 / 60% of wound swabs undertaken in our Trust are NEGATIVE (includes: colonised / skin flora) at a cost of over £100,000/year.

Patients presenting with deteriorating wounds that do not progress as expected despite perfect conditions should be swabbed for MC&S<sup>24</sup>

When obtaining a wound swab, ensure sample is taken from the wound bed or under any loose debris and rotated in a zig-zag motion, covering the entire wound surface.

A swab for Microscopy, Culture and Sensitivity (MC&S) should be obtained prior to starting antibiotics for treatment of clinically infected wounds.<sup>10</sup> **However, If sepsis is suspected then antibiotic therapy should not be delayed.**

If the patient has had MRSA previously, wounds must be swabbed on admission and dressed with an anti-microbial, dependent on aetiology. After seven days of decolonisation treatment the wound should be re-swabbed. If positive, continue with decolonisation treatment. When the patient becomes negative for MRSA, three consecutive negative swabs, 7 days apart are required before the patient is considered MRSA free.

Refer to Infection Control protocol for further information on obtaining a wound swab.

### **Silver Antimicrobial Dressings:**

Best practice standards indicate that **antimicrobial products should only be used if clinical signs and symptoms of wound infection are present.**<sup>16</sup>

- If indicated, please liaise with TVN for further advice and to obtain the appropriate dressing.
- The Tissue Viability team keep a limited stock of antimicrobial dressings and may supply wards on an individual patient basis until adequate supplies can be obtained from pharmacy or NHS supply chain.
- Antimicrobial dressings should be discontinued if the infection has not responded or resolved within two weeks and other treatment options should be considered.

## **4.6. Referral of patients for Tissue Viability assessment**

### **Initial wound management**

Nursing staff from clinical areas should make the initial assessment and initiate care as directed in the

wound management care pathway.

Staff should evaluate the progress of the wound and its management, using the [downloadable wound management care pathway document \(opens in new window\)](#) > (paper version, Derby sites, electronic version, Burton sites).

Where wounds fail to make progress or deterioration is noted, nursing staff should seek advice from the clinical area's Tissue Viability champion.

The Tissue Viability champion should then assess the wound and, if appropriate, suggest alternative management if current dressing regime fails to meet wound care objectives.

### **Tissue Viability Assessment**

A referral to a Tissue Viability specialist nurse should be made where wounds continue to deteriorate or fail to heal.

Referrals may also be made where the nature of the wound.

- is complex, as described in the above definition.
- is of an extensive size or in difficult to dress areas.
- needs specialist management such as maggot or topical negative pressure therapy.

### **Process**

Patients will be referred via:

- Extramed (In-patients, Derby sites) Lorenzo (Out-patients, Derby Sites)
- Meditech v6 (Burton sites)

The clinical staff will implement the wound management pathway (paper version, Derby sites, electronic version, Burton sites).

The Tissue Viability nurse will prioritise patients with complex wounds and may give telephone advice for patients with simple wounds.

Outpatient services (RDH) can now refer patients using Lorenzo, but please only refer patients to us this way if they have a clinic appointment booked as an outpatient. We do not have our own clinic and will be unable to follow patients up in the community who are being discharged from a ward area with a wound. Wards should refer patients to a community service (DN or Practice Nurse) in this case.

Tissue Viability nurses will seek clarification from clinical staff and give telephone advice for patients with simple wounds, whilst prioritising reviews of patients with complex wounds.

Appendix XII also gives guidance on which teams to refer to for specific wound types.

#### **4.7. Information and resources to support discharge.**

Referrals on discharge should be made to district nurse/practice nurse/nursing home staff, providing relevant information to ensure continuity of care. A copy of the Wound Management Care Pathway can be sent with patients who have complex wounds.

A supply of dressings to allow two dressing changes and appropriate pressure reducing / relieving equipment should be arranged to support discharge if required.

#### **4.8. Monitoring Compliance and Effectiveness**

The Tissue Viability Team will monitor the appropriateness of referrals from clinical areas and target directorates with a high number of inappropriate referrals with additional education.

Wound management, including outcomes will be monitored through audit; variations to practice will be monitored and reported to the individual clinical area.

Complaints will be investigated by managers any identification of poor practice will be reported as a Serious Incident.

Wound management training is currently “essential to role” on the learning passport. The Tissue Viability nurses will support staff nurses and Link Nurses within the clinical area; as well as, monitoring wound care standards and staff education.

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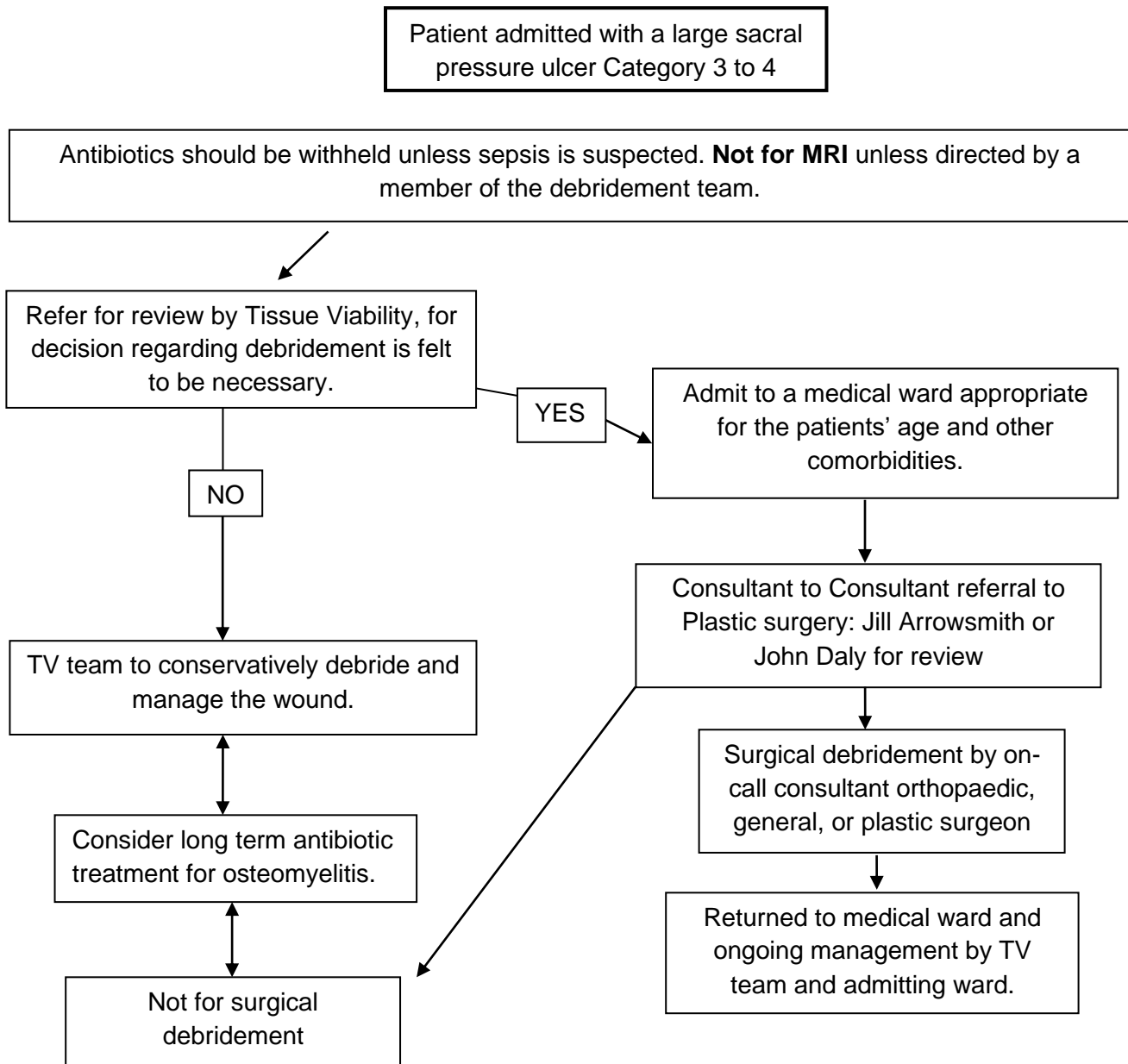
## 6. Documentation Controls

|   |                          |             |   |   |       |
|---|--------------------------|-------------|---|---|-------|
| <b>Reference Number</b><br>CG-T/2023/069  | <b>Version:</b><br>3.0.0 |             | <b>Status</b><br>Final  |   | Final |
| <b>Version / Amendment History</b>  | <b>Version</b>           | <b>Date</b> | <b>Author</b>   | <b>Reason</b>   |       |
|   | 3                        | April 2023  | The TV team   | Update plus addition of flowcharts for Fungating wounds, use of tranexamic acid, Necrotising fasciitis, infection |       |
|   |                          |             |   |   |       |
| <b>Intended Recipients:</b> All clinical staff caring for patients with wounds.   |                          |             |   |   |       |
| <b>Training and Dissemination:</b> Essential to role training. Dissemination through TV champions clinically. Promotion by the TV team  |                          |             |   |   |       |
| <b>Development of Guideline:</b><br><b>Job Title:</b> Tissue Viability  |                          |             |   |   |       |
| <b>Consultation with:</b> Medical photography, Surgery and plastics, Palliative care, Derbyshire Community Health Services, Diabetic foot team, TV team, Infection control, microbiology. East Midlands TV group  |                          |             |   |   |       |
| <b>Linked Documents:</b><br>Wound Care Formulary 2022<br>Pressure Ulcer Prevention Policy 2023<br>Pressure Ulcer Guidelines 2023<br>Leg Ulcers – Clinical Guidelines 2017<br>Tissue Viability Web Site (NET-i)<br>Infection Control: Trust Policy and Procedure.<br>ANTT training leaflet<br>Specialist care plans (Net-i 2020) |                          |             |   |   |       |
| <b>Keywords:</b>  |                          |             |   |   |       |
| <b>Business Unit Sign Off</b>   |                          |             | <b>Group: Tissue Viability Meeting</b><br><b>Date: 7<sup>th</sup> July 2023</b> |   |       |
| <b>Divisional Sign Off</b>  |                          |             | <b>Group: Trustwide Guidelines Group</b><br><b>Date: September 2026</b>         |   |       |
| <b>Date of Upload</b>   |                          |             | 29/9/2023   |   |       |
| <b>Review Date</b>  |                          |             | June 2025   |   |       |
| <b>Contact for Review</b>   |                          |             | Karren Gourley Tissue Viability lead nurse                                      |   |       |



APPENDIX I

## Pressure Ulcer Debridement Pathway



**Complex but otherwise fit patients with a long-life expectancy will need a multidisciplinary meeting to determine the best options for the patients and whether that involves this Trust or possible referral on to other specialist services elsewhere.**

APPENDIX II

## CARE PATHWAY FOR PATIENTS WITH LEG ULCERS

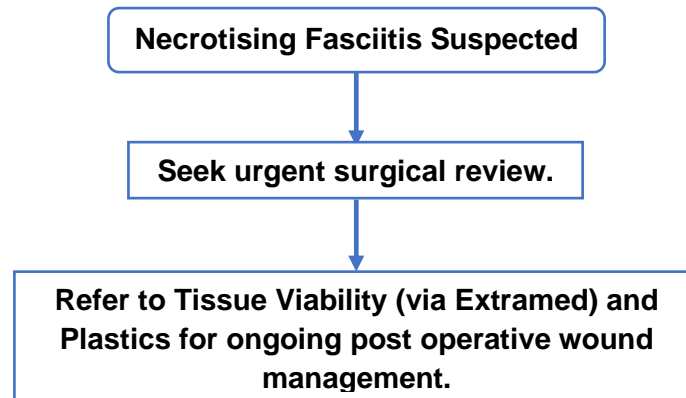
If the patient is admitted with chronic leg ulcers, they may have a plan of care established by the district nurses and this should be continued where possible. If not, follow the guidance below and ensure the patient is referred to the Vascular Nurse Specialists for assessment and appropriate investigations (please obtain medical photography in preparation for VNS referral).

*If leg ulcers are infected, please follow the infected leg ulcer guidelines (on the next page).*

| Risk Issue                                       | Care Interventions   | Date/Time | Initials |
|--|--|-----------|----------|
| <b>Skin Rehydration or Protection</b>            | - Cleanse and moisturise skin with bland emollient e.g., 50:50, Diprobase or Epiderm.  |           |          |
|  | - Check heels, ankles and shins for bandage or pressure damage and report any changes to nurse in charge.  |           |          |
| <b>Wound Assessment</b>                          | - Document wound assessment details on the wound assessment and progress section of this pathway. Do not grade leg ulcers – they will be either superficial or full thickness skin loss.<br>- Where appropriate, obtain medical photography in preparation for the vascular nurse specialist referral. |           |          |
|  | - Prescribe on-going dressing management on the prescription chart and apply the dressings   |           |          |
| <b>Safe Bandaging Technique</b>                  | - Ensure bandages applied using a 50% spiral overlap; start at the base of the toes and end just below the knee. Use a wool bandage e.g., Form flex, followed by a crepe bandage e.g., K-lite or Hospicrepe.   |           |          |
| <b>Evaluate Wound Progress to Assess Changes</b> | - Reassess and document wound evaluations on the progress chart.   |           |          |
| <b>Minimise Complications</b>                    | - Dress the wound with Atrauman; an absorbent pad and toe to knee bandages if there is a delay in establishing the community plan / dressing's advice from the tissue viability nurse.   |           |          |
|  | - Monitor for signs of infection – refer to medical staff if any deterioration is noted.   |           |          |
|  | - Infection suspected and infected leg ulcer guidelines initiated.   |           |          |
|  | - If wounds fail to make realistic expected progress refer to the leg ulcer guidelines and appropriate discipline/specialist.  |           |          |
|  | - Where possible patients should be kept mobile but encouraged to rest for periods of time with legs elevated. Ensure heels are off loaded to help avoid pressure damage.  |           |          |




APPENDIX III

## Necrotising Fasciitis Associated Wound Management



Consider obtaining medical Photography.

### Wound Care

| Cleanse   | Primary dressing  | Secondary dressing  | Secure with   |
|---|---|---|---|
| Prontosan Soak<br> | Prontosan soaked<br>Kerlix dressing.<br> | Super absorbant<br> | Clear film or type 2<br>bandage with padded<br>primary bandaging or<br>cotton tubular<br>bandage dependent<br>on location |

**Protect peri-wound skin with barrier film.**

**APPENDIX IV**



**University Hospitals of  
Derby and Burton**  
 NHS Foundation Trust

Ward \_\_\_\_\_

Cons \_\_\_\_\_

Please affix patient's  
addressograph sticker

**CARE OF A PATIENT WITH A WOUND REQUIRING PRONTOSAN & KERLIX ROLL PACKING**

| Potential Problem Identified                      | Planned Care  | Date / Signature |              |
|---|---|------------------|--------------|
|   |   | Commenced        | Discontinued |
| .....<br><u>has a wound that requires packing</u> | <ul style="list-style-type: none"> <li>• Redress wound using ANTT</li> </ul>  |                  |              |
|   | <ul style="list-style-type: none"> <li>• Identify and document if patient requires analgesia prior to dressing change or Entonox</li> </ul>   |                  |              |
|   | <ul style="list-style-type: none"> <li>• Cleanse wound with Prontosan irrigation solution</li> </ul>  |                  |              |
|   | <ul style="list-style-type: none"> <li>• Soak the Kerlix roll in / with the Prontosan solution and squeeze the excess liquid out, so that each roll is damp</li> </ul>  |                  |              |
|   | <ul style="list-style-type: none"> <li>• Unroll the Kerlix whilst loosely packing it into the wound; up to the wound edges / margins</li> </ul>   |                  |              |
|   | <ul style="list-style-type: none"> <li>• Document the number of Kerlix rolls used on each occasion that the dressing / dressings are changed</li> </ul>   |                  |              |
|   | <ul style="list-style-type: none"> <li>• Cover with a superabsorbent outer dressing and secure in place using film dressing / appropriate tape/ pad and pants</li> </ul>  |                  |              |
|   | <ul style="list-style-type: none"> <li>• Contact the Consultant if wound deteriorating and the Tissue Viability Team if there are any concerns relating to the wound dressing.</li> </ul>   |                  |              |
|   | <ul style="list-style-type: none"> <li>• Ensure a referral is made to the District / Practice nurse on discharge for ongoing dressing care, (ensure 2 days' supply of dressings are given to the patient on discharge)</li> </ul> |                  |              |

APPENDIX V

## Pathway for the Management of open and closed Haematoma's at UHDB

**In high-risk patients, a haematoma is a severe, acute wound which needs prompt action to stop the bleeding, reduce the extent of tissue loss and reduce the risk of systemic infection and sepsis.**

Haematoma's can present as a bruise but also as painful, spongy, rubbery, lump like lesions; which can be small or large; deep within the tissues or just under the surface of the skin.

**For all haematomas complete the following**

**Check bloods** INR, HB, Platelets, CRP, WCC

**Check medication**, if possible, stop anti-coag's discuss with anti-coag team if unable to stop without risk

**Establish Cause of the haematoma** blunt force trauma, spontaneous rupture of vessel etc.



New, closed haematoma  
< 12hrs old

- Mark the area with a marker pen and escalate to surgical team if the volume increases by > 2cm in 1 hr.
- Monitor Blood pressure, pulse, and respiratory rate for signs of hypovolaemia.
- Elevate limb.
- Observe perfusion of extremities, escalate URGENTLY if compromised.
- Guard against further trauma.
- Escalate to the medical team if bleeding continues.

Once clotting established

- Protect the site.
- Refer to Tissue Viability for dressings and/or conservative debridement if appropriate.
- Refer to appropriate speciality i.e., Orthopaedics, Plastics or Vascular.



Established haematoma, with a solidified clot or eschar.

- Guard against further trauma
- Monitor for signs of infection.
- Begin debridement process, using hydrogels.
- Refer to Tissue Viability for further conservative debridement and referral to appropriate speciality i.e., Orthopaedics, Plastics or Vascular.



Large open haematoma's

- Monitor Blood pressure, pulse and resps for signs of hypovolaemia.
- Elevate limb.
- Observe perfusion of extremities escalate URGENTLY if compromised.
- Guard against further trauma.
- Refer to Tissue Viability for dressings advice and/or conservative debridement and advice on referral to appropriate speciality i.e., Orthopaedics, Plastics or Vascular.

For all cases arrange Medical Photography and ensure a District Nursing referral is made for dressings or monitoring.  
 Haematomas have the potential to progress to long term tissue loss.

APPENDIX VI

**Classification of Skin Tears / Avulsion injuries & Nursing Management**

(STAR Skin Tear Classification System 2010 and ISTAP Skin tear classification (LeBlanc et al, 2018))

| Type 1<br>Skin tear without loss of tissue. the epidermal flap covers the dermis, or within 1mm of the margin |   | Type 2<br>Skin tears with partial tissue loss  |   | Type 3<br>Complete tissue loss<br>Exposure of underlying structures                                     |
|---|---|--|---|---|
| 1a. linear type   | 1b. flap type   | 2a. 25% or less tissue loss  | 2b. more than 25% loss of epidermal flap  |   |
| 1a Skin can be realigned without stretching to its normal position and is its normal skin colour              | 1b Skin easily realigned to its normal position but the skin is pale, dusky or darkened | 2a Skin tear where the tissue cannot be realigned but the flap is viable (not discoloured) | 2b Skin tear where the edges can't be realigned and the flap is not viable (pale, dusky or discoloured) | 3 Skin tears with complete loss of the flap (epidermal / dermal tissue). Due to the trauma or infection |
|                              |        |          |                      |                      |

In all cases establish haemostasis as priority. Assess wound and record in the Wound Management Care Pathway. Establish the cause and implement interventions.

- Gently realigned edges of flap to surrounding skin without tension
- Apply a non-adherent wound contact dressing, and leave intact for 5-7 days. Protect with a silicone foam adhesive or pad and bandage if the surrounding skin is fragile
- Change more frequently if exudate levels high, removing the dressing in
- Monitor for signs of infection

- Do NOT attempt to realign the flap to surrounding skin, gently spread it out using moistened gloved finger.
  - Apply non-adherent primary dressing e.g.: **Atrauman** or **Atrauman silicone/ Siltex**
  - Cover with absorbent non adhesive dressing pad. Secure with a tubular bandage or wool and bandage
  - Leave primary dressing intact for 3-5 days Change outer dressing as exudates indicates.
  - Elevate limb to reduce swelling
  - Monitor for signs of infection
- If flap becomes devitalised, it will need removal by the medical team or TVN's and re classification as stage 3.

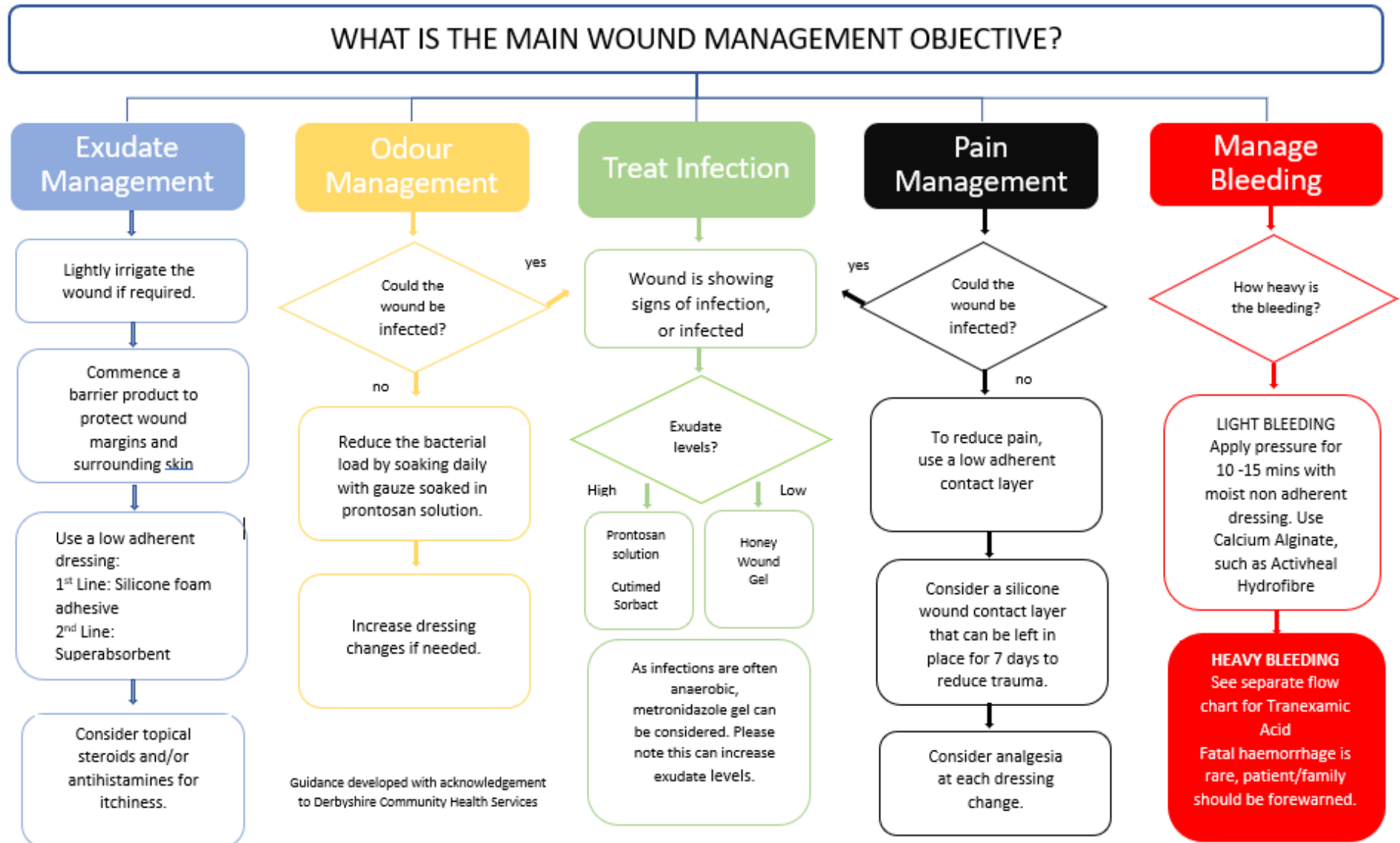
- Treat conservatively as for class 1a, 2a, 2b injuries if damage superficial
- May require more absorbent dressings e.g. Alginates with Non adherent secondary dressing
- Refer to Tissue Viability if devitalised tissue becomes a problem
- Monitor for signs of infection.

**IF THE PATIENT IS PYREXIAL OR THERE IS INCREASED CELLULITIS, PAIN OR OFFENSIVE EXUDATE**

- Swab and give antibiotics as indicated from culture
- Refer to Tissue Viability for further advice re dressings / removal of superficial devitalised tissue.

**All Extensive or deep tissue loss on the hand should be referred to the hand surgery team. Other area of extensive or deep tissue loss which exposes underlying structures should be referred for a Plastic's opinion for possible skin graft and Tissue Viability for management advice.**

# FUNGATING/MALIGNANT WOUND FLOW CHART



## TRANEXAMIC ACID USE IN THE TREATMENT OF MALIGNANT/FUNGATING WOUNDS

### ONLY FOR USE IN THE EVENT OF A MAJOR BLEED FROM A MALIGNANT/FUNGATING WOUND

(If bleed other than from malignant wound is suspected, please refer to Massive Haemorrhage clinical guidelines)

**Please ensure discussion has taken place with Consultant and Palliative Care Team**

Fatal haemorrhage is rare, however, patients, family and carers should be forewarned and sedation medication should be prescribed in case necessary

### IF SEVERE END OF LIFE BLEEDING IS SUSPECTED

- Malignant growth may erode a major blood vessel and serious haemorrhage may occur, if the wound is heavily bleeding and not responding then cauterisation or ligation may need to be considered
- Patient choice should be taken into consideration along with DNR paperwork

- **Stay calm and summon assistance / Notify medical team.**
- **Stay with the patient.**
- **If possible, nurse in the recovery position to ensure airways are clear.**
- **Stem/Disguise the bleeding with dark towels.**
- **Tranexamic acid 500mg/5ml ampoule for injection (10%) should be soaked into gauze and applied with pressure for 10 minutes.**
- **End of life medication to be given as per patient End of Life plan**



If Tranexamic Acid is unavailable, use **Adrenaline 1:1000** soaked into gauze the same way.

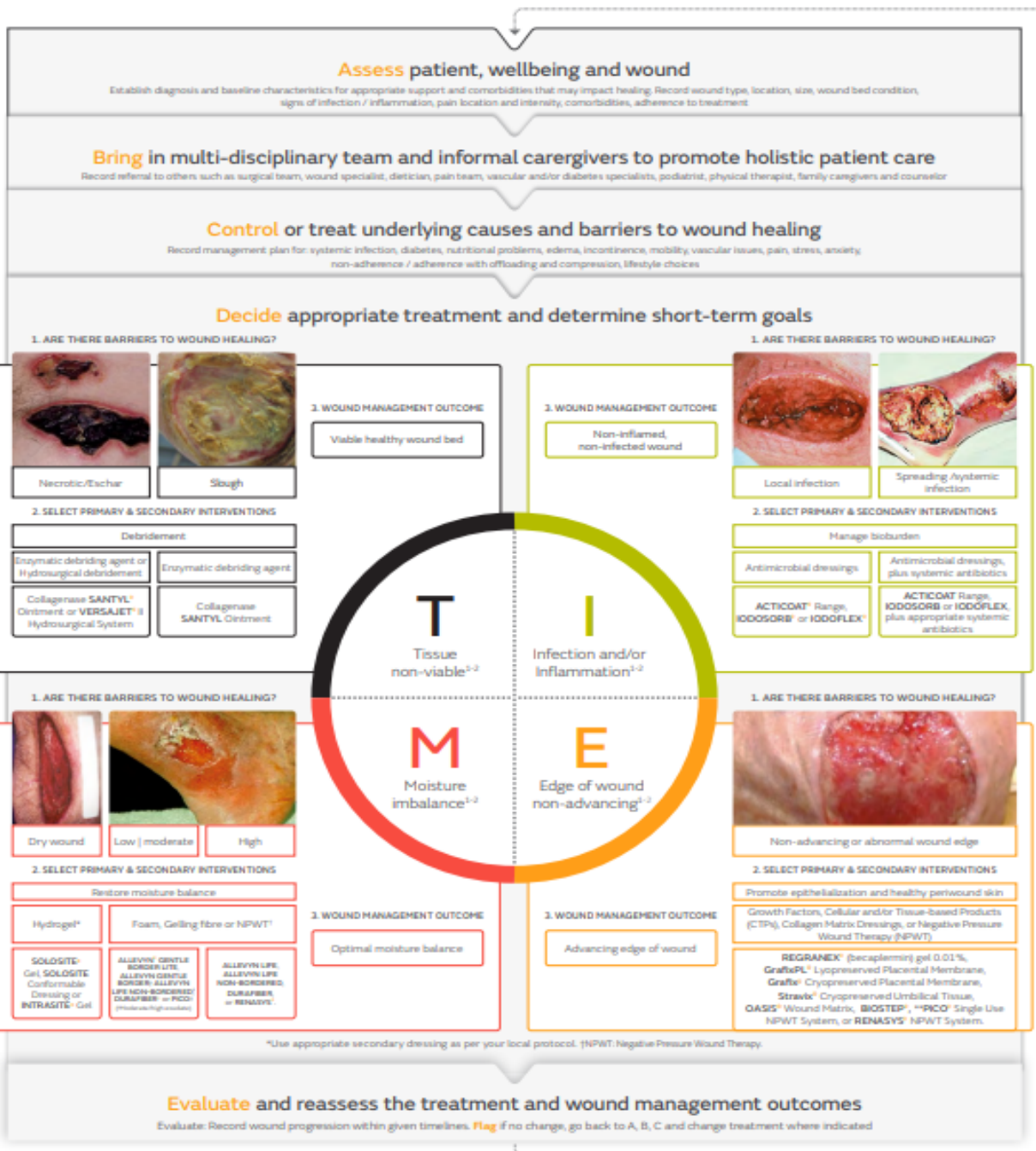
Please note Adrenaline can cause tissue ischaemia.



APPENDIX IX

SmithNephew

# T.I.M.E. Wound Management Pathway



Developed with the support of Queen's and HEE in 2020.<sup>1</sup>

Equal mix of suitable for wounds suitable for NPWT. ALLEVIN Range includes ALLEVIN LIFE, ALLEVIN GENTLE BONDOR and ALLEVIN GENTLE BONDOR LITE. \*See label for Smith-Nephew manufacturing Code Sheet.

**References:** 1. Schultz DS, Sibbul DC, Krasner K, et al. Wound bed preparation: a systematic approach to wound management. *Wound Care* 2005; 11(1): 28. 2. Lavery GJ, Schultz G, Cantile A, Fletcher J, Swannell H, Quirk B. Extending the TIME concept what have we learned in the past 10 years? *Wound J* 2012; 9 (Suppl 2): 1-19. 3. Smith G, Dixon-Smith H, Taylor B. Wound research: use of wound dressings before and after a hospital educational programme. *Journal of Clinical Care* 2002; vol 76 (suppl 4). 4. Hayes C, Dixon-Smith G, Smith G, et al. 1996-2007: accepted tool to address the current challenges in wound care. *Journal of Clinical Care* vol 78, no 5, March 2013; 153-161.

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**Important safety information**

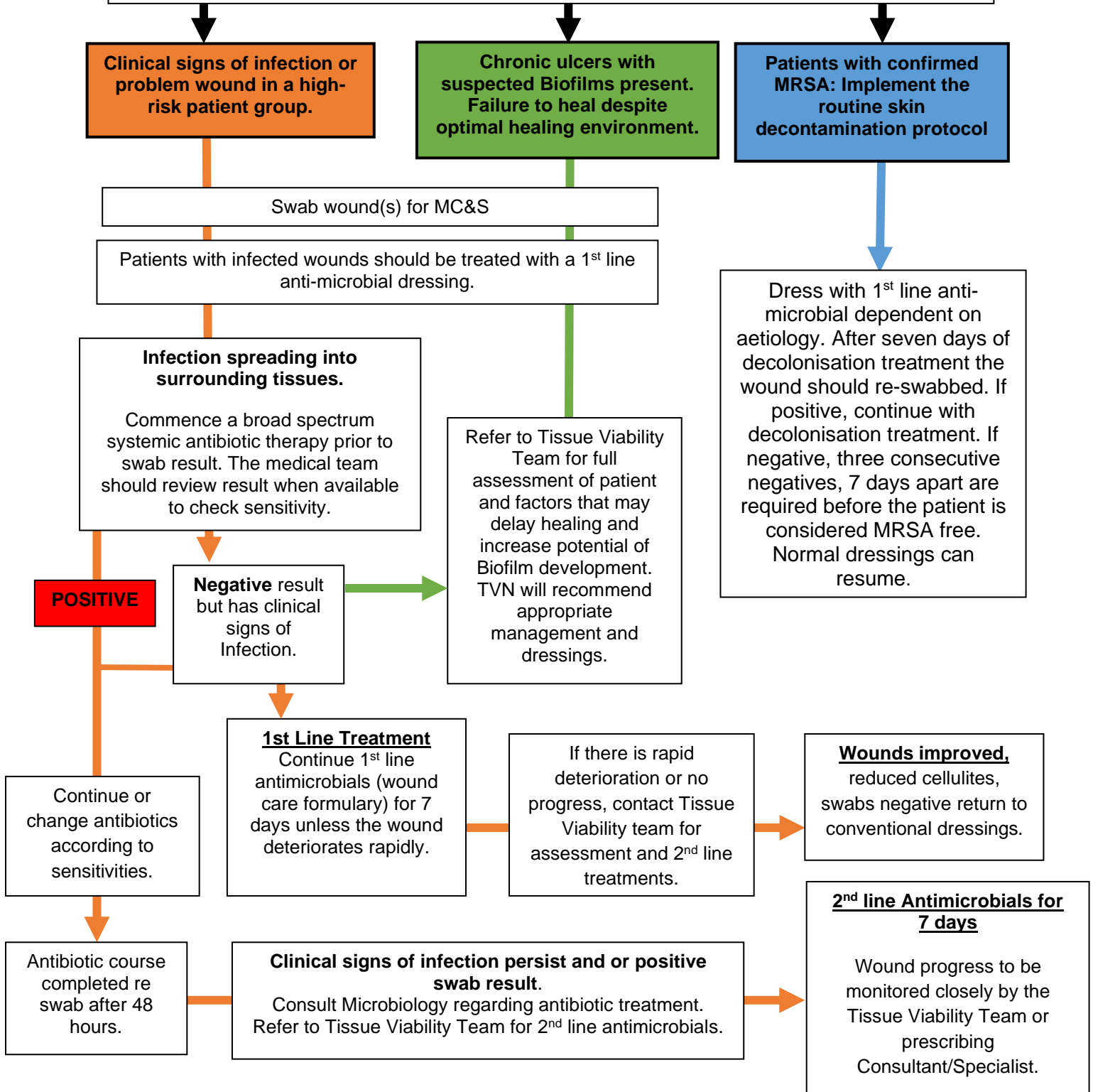
**Indications:** ACTICOAT (range) (ACTICOAT) is indicated for the treatment of acute or chronic wounds that cannot be closed by primary closure, medical or surgical means. ACTICOAT is a non-adhesive, non-occlusive, non-sterile, non-antimicrobial dressing that is used to protect the wound bed and to manage exudate. ACTICOAT is not intended for use on wounds that are infected or suspected to be infected. ACTICOAT is not intended for use on wounds that are not suitable for primary closure, medical or surgical means. ACTICOAT is not intended for use on wounds that are not suitable for primary closure, medical or surgical means. ACTICOAT is not intended for use on wounds that are not suitable for primary closure, medical or surgical means.

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This is an important safety information. For more information, please see the full approved product labeling, here: [www.smith-nephew.com](https://www.smith-nephew.com)

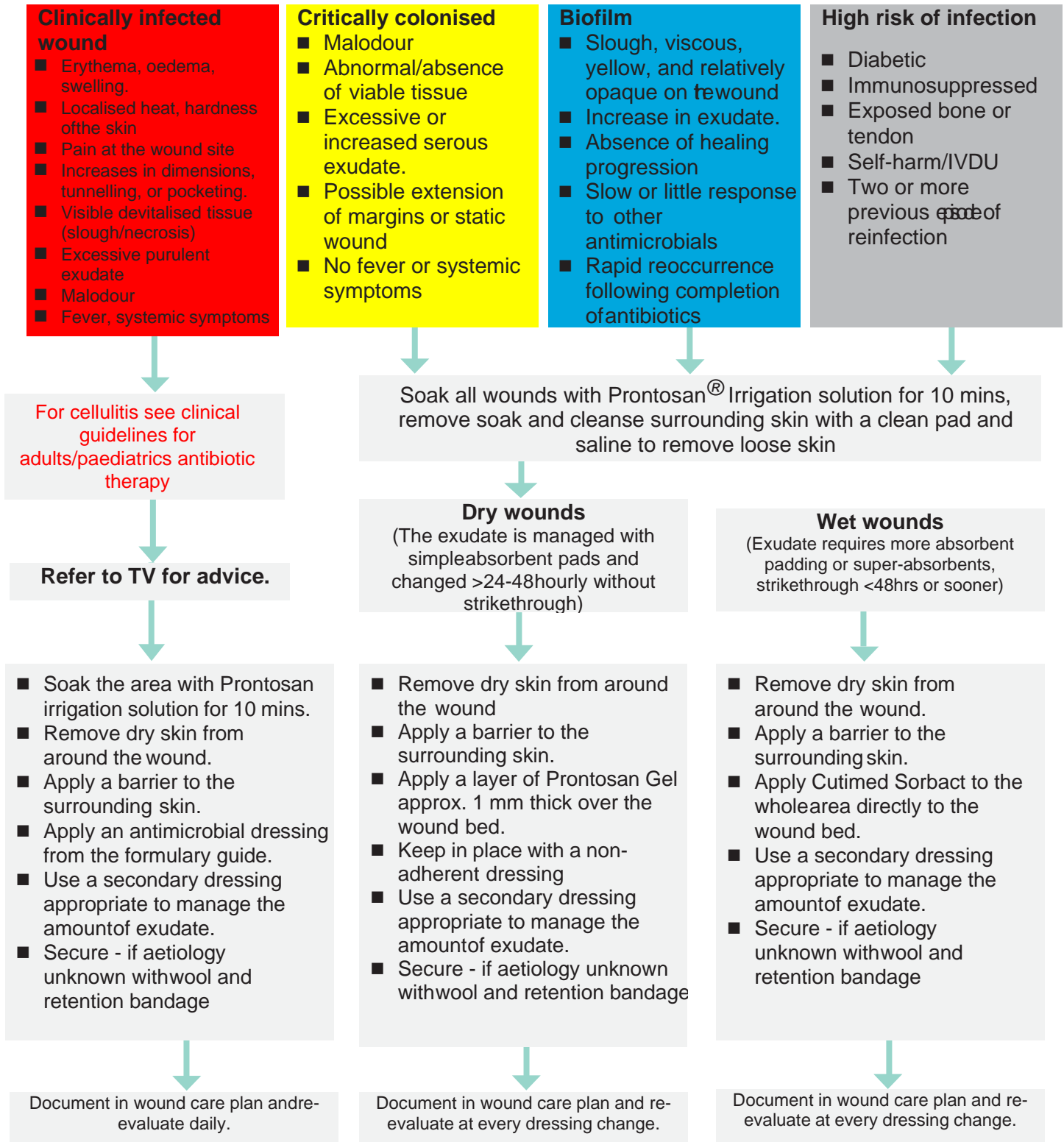
APPENDIX X

**WOUND INFECTION MANAGEMENT GUIDANCE**



**APPENDIX XI**

**MANAGEMENT PATHWAY FOR INFECTED LEG ULCERS**



**Re-evaluate all antimicrobials after 2 weeks and discontinue if there is a reduction in the wound size, exudate and pain levels. Continue Prontosan® soaks for at risk patients and ensure the leg ulcer care pathway is followed to establish the aetiology of the ulcer if unknown.**

APPENDIX XII

## Referrals

| What to refer   | Who to refer to  | How to refer  |
|---|--|---|
| Skin rashes, Un-resolving cellulitis, suspicious lesions, or erosions                     | Dermatology  | Consultant to Consultant  |
| Haematomas, closed or open  | Tissue Viability, Orthopaedics or Plastics   | Tissue Viability electronic referral<br>Consultant to Consultant                                      |
| Traumatic injuries  | Orthopaedics   | Consultant to Consultant  |
| Dehisced surgical wounds  | Surgical team responsible for patient.<br>Tissue Viability   | Direct referral to parent team<br>Tissue Viability electronic referral                                |
| Pressure ulcers category 3, 4 and SDTIs   | Tissue Viability   | Tissue Viability via DATIX  |
| Pressure ulcers extensive, infected, or complex (need for debridement or adjunct therapy) | Tissue Viability   | Tissue Viability electronic referral  |
| Diabetic foot ulcers (within 24 hrs of admission)   | Diabetic Foot Team (RDH/LRCH only)<br><br>Refer to Podiatry If in Burton Queens<br><br>If in Lichfield SJH or Tamworth SRP refer to Tissue viability | Consultant to Consultant<br>Tissue Viability electronic referral                                      |
| Necrotic toe's / feet or lower limbs  | Diabetic Foot Team if diabetic (RDH/LRCH only) otherwise Vascular Surgery.<br>Tissue Viability   | Consultant to Consultant<br>Tissue Viability electronic referral                                      |
| Leg Ulcers<br>Venous<br>Arterial  | Vascular Specialist Nurse  | Via ExtraMed<br>Tissue Viability electronic referral  |
| Fungating wounds  | Palliative care team, Tissue Viability, Surgical team if appropriate   | Palliative care team via ExtraMed<br>Tissue Viability electronic referral<br>Consultant to Consultant |
| Rashes (oncology) Reactions to Chemotherapy or Radiotherapy within 6 weeks of treatment   | Oncology,  | Consultant to Consultant referral   |
| Skin tears, lacerations, and Avulsion injuries<br>Categories 3 (see Classification Guide) | Tissue Viability, Plastics or Hand surgery Consultant  | Tissue Viability electronic referral<br>Consultant to Consultant referral                             |
| Abscesses   | General Surgery  | Consultant to Consultant  |



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