

Acute Wounds

There are principally two kinds of acute wounds

Traumatic

A traumatic wound includes injuries such as lacerations, abrasions, bites and burns, contusion injuries and puncture wounds.

Management of a severe traumatic wound initially involves emergency procedures e.g.

- ❖ Resuscitation and restoration of the circulation to the affected limb/area
- ❖ Associated injuries should be considered.
- ❖ The blood supply must be optimised and any necrotic tissue debrided as this can act as a focal point for bacteria
- ❖ Irrigate the wound and remove debris
- ❖ Antibiotics and tetanus are usually given prophylactically

Surgical Incisions

PRIMARY CLOSURE: where a surgical wound is incised and either sutured/stapled or glued.

DELAYED PRIMARY CLOSURE: surgical wounds which are contaminated or infected, are sometimes left open post surgery whilst the infection resolves and then they are sutured closed at a later date.

SECONDARY CLOSURE: Wounds laid open to heal by secondary intention.

Adequate pain control and appropriate dressing selection can greatly affect the outcome for the patient e.g. time to heal, the scar and quality of life.

If pain is not controlled adequately it can:

Decrease oxygen uptake

Delay patient mobility & increase hospital length of stay

Increase mortality & morbidity

For acute wounds dressing selection should be based upon:

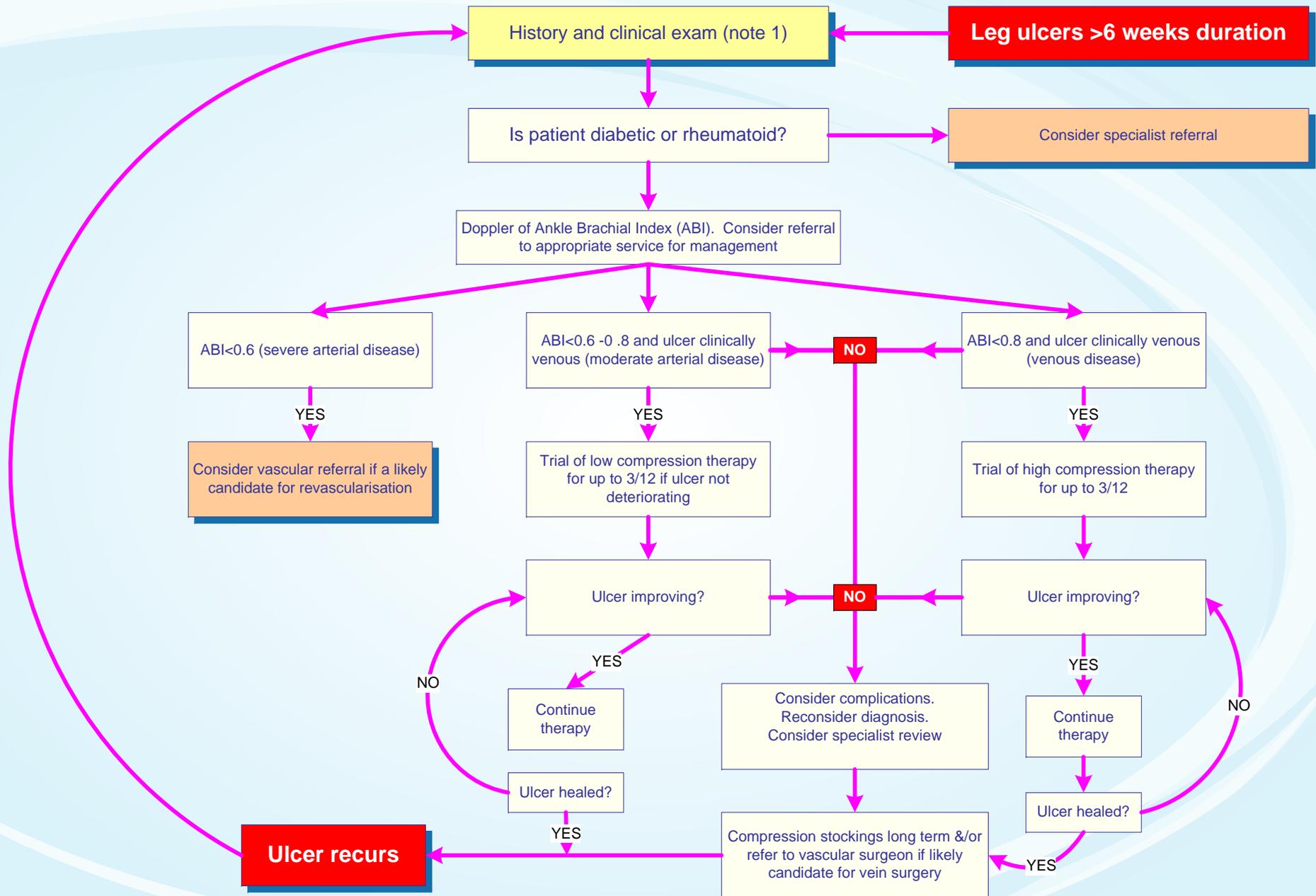
Absorbing wound exudate

Protecting the wound from infection

Supporting homeostasis

Patient comfort

Management of chronic leg ulcers



Less common leg ulcers

This section will focus on the management of the small percentage of lower leg ulcers which develop as a result of more unusual causes. It is important that practitioners who manage patients with chronic ulcers work together to diagnose the cause of the ulcer at an early stage to ensure that appropriate care is given at the outset.

Chronic leg ulcers may also be due to **skin cancer** which may be diagnosed by a **skin biopsy** of the edge of a suspicious lesion. There are also many less common causes of ulcers including systemic diseases such as **systemic sclerosis**, **vasculitis** and various skin conditions, especially **pyoderma gangrenosum**.

VASCULITIS

A number of different conditions cause vessel wall inflammation resulting in occlusion of the vessel lumen and ischemic necrosis of the tissue.

Changes to the skin can be representative of similar pathology affecting internal organs. Vasculitic ulcers are mainly due to small vessel disorders such as rheumatoid arthritis or idiopathic disease (of no known cause).

Vasculitic ulcers can have discoloured or necrotic ulcer margins and less erythema, with minimal or no granulation tissue.

Large and medium vessel arteritis is extremely rare.

Small vessel arteritis is more common and is diagnosed by a combination of clinical features together with blood tests for antibodies e.g. rheumatoid arthritis. The condition is often self limiting and requires no systemic treatment unless severe when corticosteroids and immunosuppressant drugs should be used.

Local treatments include wound cleansing and appropriate dressings, topical steroids, adequate pain relief.

Pyoderma Gangrenosum

This is a chronic destructive disorder of the skin often associated with a history of inflammatory bowel disease.

There is usually a history of trauma resulting in a large and painful pustule. Subsequent rupture of the pustule produces an enlarging ulcer which is characterised by the intense purple colour of its margin.

Further trauma for example by surgical debridement will only worsen the condition.

Treatment often involves high doses of steroids and bed rest.

Gout

Gout occurs as a result of excess uric acid in the blood which causes crystals to form in joints. The most common site for an attack of acute gout is the first metatarsophalangeal joint.

Swelling and erythema, particularly medial to the joint makes the skin vulnerable to excessive friction and ulceration.

Treatment: medication, diet, dressings to debride.

Malignancy

Skin tumours such as basal cell carcinoma (rodent ulcer), squamous cell carcinoma and nodular malignant melanoma can all ulcerate.

Such ulcers frequently has no associated erythema.

Basal carcinomas are typically slow growing, have raised pearly edges with numerous small vessels present.

A squamous carcinoma is a rapidly growing, raised ulcer which can occasionally metastasise – an early diagnosis is particularly important.

Malignant melanomas are usually pigmented and can also metastasise.

Occasionally an area of a chronic ulcer which appears to be granulating more rapidly than the rest can be a squamous cell carcinoma (Marjolin's ulcer).

A biopsy of the wound is required to confirm diagnosis.

Treatment: excision and skin grafts.

Palliative wounds treatment guide

(Palliative wounds – malignant, fungating, wounds or fistulae)

High exudate / bleeding

AIM: Balance exudate absorption and protection of surrounding skin

- ❖ Calcium alginate, hydrofibre, foam dressings for moderate/high exudation
- ❖ Stoma device or wound bags for fistulas and high exudating wounds
- ❖ Skin barrier crèmes films
- ❖ Bleeding wounds: calcium alginate +/- pressure
- ❖ Major bleeding – medical emergency

Malodour

AIM: Remove medium for bacterial growth and kill bacteria responsible for the odour

- ❖ Topical Metronidazole to control the bacteria
- ❖ Systemic Metronidazole
- ❖ Topical antimicrobial dressings
- ❖ Active charcoal dressings
- ❖ Autolysis or conservative step debridement of necrotic tissue

Pain

AIM: Comprehensive pain assessment to establish type and management strategies

- ❖ Patient awareness and education
- ❖ Analgesia 20 – 30 minutes prior to dressing change
- ❖ Non-adherent dressings
- ❖ Use of appropriate products
- ❖ Nitrous Oxide gas (Entonox)
- ❖ Adjunctives therapies
- ❖ Ongoing chemo/radiotherapies

Skin irritation

AIM: Relieve symptoms

- ❖ Avoid perfumed toiletries
- ❖ Aqueous crème 2 – 3 times daily
- ❖ Anti-pyretic
- ❖ Antihistamines
- ❖ Hydro gel sheet dressings
- ❖ Avoid tapes / adhesives
- ❖ Hygiene for surrounding area

Palliative wounds treatment guides

(types of palliative wounds – malignant, fungating, wounds or fistulae)

Radiotherapy / skin reaction

Presentation:

Erythema – present after 24-48 hours, after 2-3 weeks can be more pronounced, lasting up to 8 weeks post treatment, dry desquamation, moist desquamation

Erythema dry mesquamation Classified as 'thermal burns'

AIM: Promote comfort & prevent infection

- ❖ Wash daily – warm water
- ❖ Non perfumed soaps
- ❖ Pat skin dry
- ❖ Avoid deodorants
- ❖ Do not shave the area
- ❖ Loose comfort cotton clothing
- ❖ Use of aqueous crème 2-3 time daily
- ❖ For non broken skin – 1% hydrocortisone crème
- ❖ Appropriate pain relief
- ❖ Protect from sunlight ongoing (one year at least)

Erythema moist mesquamation (loss of epidermal layer – exudating)

AIM: Prevent infection, promote epithelisation

- ❖ Hydro gel sheet dressing
- ❖ Hydro fibre dressing
- ❖ Alginates
- ❖ Hydro foams
- ❖ Antimicrobials, systemic antibiotics
- ❖ Semi-permeable film
- ❖ Pain relief as appropriate



Lymphoedema - oedema

Presentation:

Limb heavy and difficult to lift, impaired mobility, fluid leakage from limb:

- ❖ Referral to specialist services may be required
- ❖ Local skin care, elevation, exercise and compression

Pressure ulcers – see Pressure Ulcer Management pxxx

References and other useful sites:

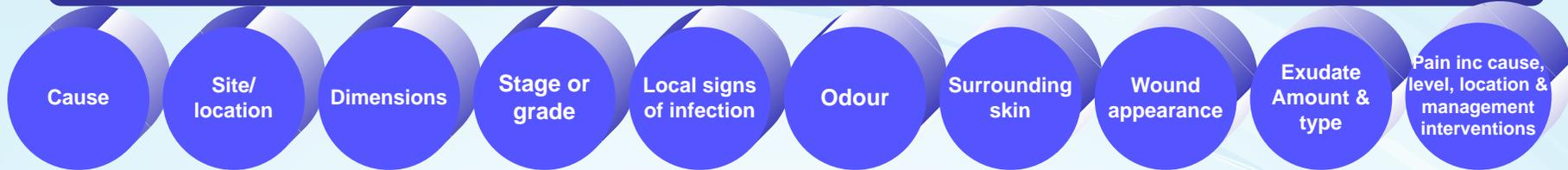
Naylor, W (2005) *Mercy Hospice Auckland : Guidelines for wound management in palliative care.* Auckland Genesis Oncology Trust

World Health Organisation (1996) *Cancer Pain Relief (2nd ed)*, Geneva: World Health Organisation

www.nhsglos.nhs.uk/pdf/CP12dfungatingwounds_jan2007.pdf

Pressure ulcer assessment and treatment

Assessment of pressure ulcer



Example of pressure grading tool

Scottish Adapted European Pressure Ulcer Advisory Panel (EPUAP) Grading Tool

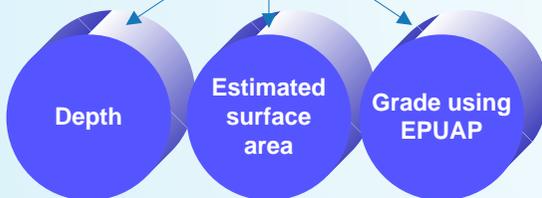
NAFVNS NHS Quality Improvement Scotland

Grade	Description	Photograph 1	Photograph 2	Diagram
Grade 1	Non-blanchable erythema (redness) of intact skin. Discolouration of the skin, warmth, oedema, induration or hardness may also be used as indicators, particularly on individuals with darker skin			
Grade 2	Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion or blister			
Grade 3	Full thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through underlying fascia			
Grade 4	Extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures with or without full thickness skin loss			

Progression of a pressure ulcer

Record

DOCUMENT



- ❖ Support documentation with photography and/or tracings
- ❖ Document all pressure ulcers graded 2 and above locally as a clinical incident

Treatment

- ❖ Use TIME for wound bed assessment
- ❖ Assess nutritional requirements
- ❖ Consider preventative measures

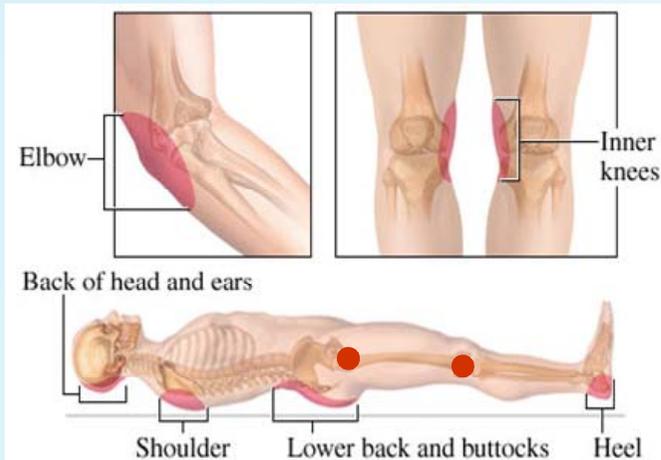
www.tissueviabilityonline.com/pu

Version 1 1st July 2009

Images: Colin Blain Medical Photographer Ipswich Royal Hospital (RR) Greenwich / Science Photo Library

Pressure ulcer management

Positioning



Consider mobilising, positioning and repositioning interventions for all patients – including those in beds, chairs and wheelchair users

Minimise pressure on bony prominences and avoid positioning on pressure ulcer if present

Consider whether position time should be restricted to less than 2 hours per session

Record using a repositioning chart / schedule

Nutrition

Provide nutritional support to patients with an identified deficiency.

Decisions about nutritional support / supplementation should be based on:

- ❖ Nutritional assessment using a recognised tool e.g. the Malnutrition Universal Screening Tool (MUST*)
- ❖ General health status
- ❖ Patient preference
- ❖ Expert input e.g. dietitian and other specialists

Pressure relieving devices

Choose pressure relieving device on the basis of:

- ❖ Risk assessment
- ❖ Co-morbidities e.g. diabetes
- ❖ Pressure ulcer assessment (severity) if present
- ❖ Location and cause of the pressure ulcer if present
- ❖ Skin assessment
- ❖ General health
- ❖ Lifestyle and abilities
- ❖ Critical care needs
- ❖ Acceptability and comfort
- ❖ Availability of carer or healthcare professional to reposition the patient
- ❖ Cost considerations

Seek specialist advice on aids and equipment and positions.

Diabetes: consider pressure offloading management.

Patients should have 24 hour access to pressure relieving devices and or strategies.

Consider all surfaces used by the patient.

As a minimum provision patients with a grade 3 – 4 pressure ulcer should:

- ❖ Have a high specification foam mattress with an alternating pressure overlay or
- ❖ Have a sophisticated continuous low pressure system for example air loss, air flotation