Management of Suspected Infection in Chronic Wounds and Ulcers

STOP AND THINK BEFORE YOU PRESCRIBE ANTIBIOTICS Does your patient actually have an infection, and require treatment?

- Ensure optimal management of co-existing conditions, particularly diabetes mellitus, peripheral vascular disease or rheumatoid arthritis
- If appearance is atypical or if there is failure to progress after 12 weeks appropriate management consider referral
- Optimal wound care must be maintained throughout treatment – See NHS Tayside wound management formulary (WMF)
- Consider differential diagnosis of venous eczema in suspected bilateral lower limb cellulitis
- Wounds less than 4 weeks old are not considered chronic and should be managed according to the NHS Tayside Wound Management Formulary (WMF)
- Recommendations are for non-pregnant adults and doses stated assume normal renal and hepatic function

**NEWS≥5 and infection: THINK SEPSIS**

If 2 or more of the following AND clinical suspicion of infection

- Temp >38°C or <36°C
- Pulse >90bpm
- Altered mental state
- Resp rate >20 breaths/min
- WCC<4 or >12

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**NO sepsis**

If the patient has diabetes click [here](#) for guidance on wound care and [here](#) for antibiotic selection and seek advice

- Is increased pain and/or exudate at the wound site?
  - no
  - yes

**Localised infection likely**

- DO NOT SWAB
- Use antimicrobial dressings (honey, iodine, Cutimed Sorbact® or Flaminal®) for 2 weeks. If partial response is achieved, continue use for a maximum of 4 weeks. (see WMF).

  - Has pain and/or exudate decreased?
    - no
    - yes

  - If no change in pain or exudate then use alternative antimicrobial dressing (silver) for further 2 weeks. If symptoms worsen then manage as systemic infection.

**Discontinue antimicrobial dressing and continue normal wound care**

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**Wound infection unlikely**

- DO NOT SWAB
- Normal wound care

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**Sepsis - ESCALATE/ADMIT AS APPROPRIATE (community)**

COMPLETE SEPSIS BUNDLE WITHIN 1 HOUR (hospital)

Refer to [Management of Cellulitis](#)

- Is increased pain and exudate accompanied by cellulitis or pyrexia?
  - no
  - yes

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**Systemic infection likely**

- Consider admission if sepsis (see information above), spreading cellulitis despite oral antibiotics, lymphangitis, at high risk of complications or unable to take oral medication and refer to [Management of Cellulitis](#)
- Cleanse with saline or tap water and swab wound. Apply a firm pressure and move swab across wound surface in a zig-zag motion, at the same time as being rotated between the fingers.
- Send any aspirate, pus or loose tissue for culture
- Include wound duration and site, and any recent antibiotics on microbiology request
- Use antimicrobial dressings as for localised infection

AND

Commence systemic antibiotics for 7 days – consider severity of symptoms, risk of complications and previous antibiotic use.

- Fluclaxacillin 1g four times daily OR
- Doxycycline 100mg twice daily (in penicillin allergy)

If history or risk of MRSA use

- Doxycycline 100mg twice daily
- If not sensitive to doxycycline seek advice from microbiology

Reassess if symptoms worsen rapidly or significantly at any time, if no improvement within 2 to 3 days or the person becomes systemically very unwell. Seek specialist advice or consider referral if concerns of more serious illness eg. sepsis/ necrotising fasciitis/ osteomyelitis.

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Adjust antibiotic treatment in line with sensitivities, but be aware of likely colonisers that should not alter management

**Significant organisms**

- Staph aureus
- Group A, B, C or G streptococcus
- Milleri group

**Likely colonisers**

- Pseudomonas aeruginosa
- Escherichia coli
- Proteus
- Klebsiella
- Enterobacter

- Coagulate-negative staphylococci
- Bacillus sp
- Anaerobes

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**Adapted from**

NHS Tayside Antimicrobial Group
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Potassium permanganate should be used as a soak for weeping wounds. See [Wound Management Formulary](#).

If further advice required after use of above protocol please contact the on call doctor for the relevant specialty; or microbiology on bleep 4039.

Reference: Public Health England, SIGN CG 120
Reference: PHE, SIGN CG120, BNF 78

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