

## The LAKES DHB Community Cellulitis Pathway – March 2020

1) *Do they meet exclusion criteria?*

Yes – refer to hospital

2) *Is the patient mentally and socially capable of being treated in the community?*

e.g. Ability to rest and elevate limb, access to support person and phone

3) *Does the patient have a chronic unstable medical condition that may make them unsuitable for community treatment?*

Yes – d/w ID consultant during the day, surgical on call overnight

4) *Take bloods:*

- Renal Function
  - eGFR>30 – treat with probenecid if no other contraindication
  - eGFR <30 – no probenecid
  - eGFR <10 – d/w ID consultant
- Consider Hba1c
- Consider FBC/CRP for monitoring

4) *Does the patient have a contraindication to probenecid?*

- eGFR<30
- blood dyscrasias
- acute gout
- caution if history of peptic ulcer
- elite athletes – banned substance, seek advice of sports medicine specialist
- on methotrexate

**\*\*NOTE paracetamol and NSAID doses must be halved when taking probenecid\*\***

5) *Is the patient on warfarin?* – check interactions and adjust dose/test INR as appropriate

### **EXCLUSION CRITERIA:**

- Age < 15
- Periorbital cellulitis
- Orbital cellulitis - *characterised by painful movement of the eye*
- Underlying fracture
- Septic arthritis
- Suspected compartment syndrome
- Suspected necrotising fasciitis - *consider if pain is out of proportion to appearance, there is significant pain on muscle movement, patient is unwell out of proportion to appearance or if cellulitic area is growing rapidly.*
- Mastitis
- Asplenia
- Meets Grade 4 criteria

### **RELATIVE EXCLUSIONS:**

*Discuss with ID consultant:*

- Infection in butcher, hunter or fisherman
- Fresh water injuries
- Immunosuppressive therapy
- >40mg oral steroids for >2 weeks

*Discuss with oncologist:*

- Current chemotherapy

*Discuss with orthopaedics:*

- Cellulitis in same limb as a prosthesis

*Discuss with General Surgery:*

- Collection requiring drainage that cannot be managed in primary care
- Foreign body that cannot be managed in a timely manner by primary care

GRADING	NOTES	No penicillin allergy Not MRSA Not human or animal bite	Non-anaphylactic penicillin allergy Not MRSA Not human or animal bite	Anaphylaxis to penicillin Not MRSA Not human or animal bite	Human or animal bite	MRSA	SUGGESTED Reviews	
<b>Grade 1</b>	<ul style="list-style-type: none"> <li>Medically stable</li> <li>No systemic toxicity</li> <li>No uncontrolled comorbidities</li> </ul>	Flucloxacillin does not need to be taken on an empty stomach when taken with probenecid	Flucloxacillin 1g PO BD + Probenecid 500mg PO BD for 7 days  <i>Can't take probenecid?</i> Flucloxacillin 1g PO QID for 7 days	Cephalexin 1g PO BD + Probenecid 500mg PO BD for 7 days  <i>Can't take probenecid?</i> Cephalexin 1g PO QID for 7 days	Clindamycin 450mg PO QID for 7 days	Augmentin 625mg PO TDS for 7 days  <i>Discuss with ID consultant if allergic to penicillin</i>	<i>Treat as per sensitivities:</i> Cotrimoxazole 960mg PO BD 7 days or Clindamycin 450mg PO QID 7 days	<i>Funded initial consult</i>  <i>Review if required</i>
<b>Grade 2</b>	Systemically ill or systemically well with comorbidities such as: <ul style="list-style-type: none"> <li>Peripheral vascular disease</li> <li>Chronic Venous Insufficiency</li> <li>Morbid obesity</li> </ul> Which may complicate or delay resolution of infection	Flucloxacillin does not need to be taken on an empty stomach when taken with probenecid	Flucloxacillin 1g PO BD + Probenecid 500mg PO BD for 7 days  <i>Can't take probenecid?</i> Flucloxacillin 1g PO QID for 7 days	Cephalexin 1g PO BD + Probenecid 500mg PO BD for 7 days  <i>Can't take probenecid?</i> Cephalexin 1g PO QID for 7 days	Clindamycin 450mg PO QID for 7 days	Augmentin 625mg PO TDS for 7 days  <i>Discuss with ID consultant if allergic to penicillin</i>	<i>Treat as per sensitivities:</i> Cotrimoxazole 960mg PO BD 7 days or Clindamycin 450mg PO QID 7 days	<i>Funded initial consult</i>  <i>Funded review day 3</i>
<b>Grade 3</b>	Significant systemic upset: <ul style="list-style-type: none"> <li>Tachycardia 100-130</li> <li>Tachypnoea 20-24</li> <li>Relative/asymptomatic Hypotension</li> </ul>	The oral dosing for grade 3 is therapeutically equivalent to IV.  If adherence is a major concern, please refer to hospital	Flucloxacillin 1g PO TDS + Probenecid 500mg PO TDS for 7 days  <i>If the patient is &gt;120kg:</i> Flucloxacillin 1g PO QID + Probenecid 500mg PO QID for 7 days  <i>Can't take probenecid?</i> Refer to hospital for IV antibiotics	Cephalexin 1g PO TDS + Probenecid 500mg PO TDS for 7 days  <i>If the patient is &gt;120kg:</i> Cephalexin 1g PO QID + Probenecid 500mg PO QID for 7 days  <i>Can't take probenecid?</i> Refer to hospital for IV antibiotics	Clindamycin 450mg PO QID for 7 days	<i>Refer to hospital for IV antibiotics</i>	<i>Treat as per sensitivities:</i> Cotrimoxazole 960mg PO BD 7 days or Clindamycin 450mg PO QID 7 days	<i>Daily funded reviews for 3 days</i>
<b>Grade 4</b>	Significant systemic upset <ul style="list-style-type: none"> <li>Tachycardia &gt;130</li> <li>Tachypnoea &gt;24</li> <li>Unstable/symptomatic hypotension</li> <li>Unstable comorbidities that may interfere with response to therapy</li> <li>Limb threatening infection due to vascular compromise</li> <li>Severe life threatening infections such as necrotizing fasciitis</li> </ul>	Needs hospital admission	<i>Refer to hospital for IV antibiotics</i>	<i>Refer to hospital for IV antibiotics</i>	<i>Refer to hospital for IV antibiotics</i>	<i>Refer to hospital for IV antibiotics</i>	<i>Refer to hospital for IV antibiotics</i>	

**Provide patients with a Community Cellulitis Pack based on their grade:**

- Packs will be provided for patients who meet the criteria for flucloxacillin or cephalexin + probenecid
- If packs are not yet available at your practice, then please provide a prescription
- Please provide a prescription for patients who fall outside these groups

Packs include the complete course of antibiotics for their grade plus an information sheet explaining what to expect over the next few days, what to look out for and when to return for review. It also discusses the importance of elevating the leg. A tick box chart to make sure the right tablets are taken at the right time is included.

**ON REVIEW:**

*Monitor for complications and inform the patient of what to look out for:*

**Local signs of increasing tissue infection:**

- Pain
- Swelling
- Ulceration

**System signs:**

- Unresolving/worsening fever
- Tachycardia
- Hypotension
- General unwellness

**Watch out for adverse reactions to antibiotics including:**

- Clostridioides difficile if diarrhoea occurs with clindamycin treatment. If concerned a stool assay for Clostridioides difficile toxin is diagnostically helpful.

**Duration/Monitoring:**

- Appearances may worsen before they improve; this is to be expected and systemic signs should therefore be taken into consideration before assuming spread of cellulitis is an indication of lack of response to the antibiotics. The area can increase due to toxin release and move proximally even with limb elevation.
- The limb is not required to look normal prior to stopping the antibiotics.
- While 7 days of antibiotics is sufficient for most cases, occasionally courses of up to 14 days may be necessary.
- Resolution may include blistering of the skin; as these blisters de-roof the exposed tissue may weep and be red in appearance - this is a normal response. Alternatively the skin may exfoliate revealing new, red skin underneath.