Cellulitis and Erysipelas

Guideline

Presents as a painful, red, hot, swollen area possibly with lymphangitis and can occur in any age

Definition

Cellulitis is an infection of the skin and soft tissues, most commonly caused by Group A Streptococci and/or Staphylococcus aureus. Erysipelas is a form of cellulitis with rapid onset, clearly demarcated margins and is almost exclusively caused by Group A Streptococci.

Predisposing Factors

Cellulitis/erysipelas may follow minor, sub-clinical skin trauma or may arise in an area where there is dermatophyte infection, eczema, psoriasis, a traumatic or surgical wound or other break in the skin barrier

Patients with venous insufficiency, oedema, lymphatic obstruction, previous cellulitis/erysipelas, diabetes, alcoholism or cerebrovascular disease have a high incidence of cellulitis and are prone to relapse.

Investigations

Swab any skin lesions, ulcers or wounds in the area of the infection

NB Cellulitis commonly appears to worsen in the first few days but this should not automatically lead to a change in antibiotics unless the patient's overall condition (e.g. fever, pulse, BP) deteriorates

Get advice if cellulitis on diabetic foot. All unwell diabetic patients with cellulitis need admission.

Refer to Community Cellulitis protocol for IV antibiotics

Treatment Guide

Uncomplicated cellulitis – patient not toxic

- Duration of treatment – 10 days

- Adult Flucloxacillin - 0.5-1.0 g QID orally for 10 days
  If significant penicillin allergy (e.g. anaphylaxis, angioedema), use
  Erythromycin 800 mg BD or Co-trimoxazole 960 mg BD

- Children Flucloxacillin – 12.5-25 mg/kg/dose QID or
  Erythromycin – 10 mg/kg/dose QID or
  Co-trimoxazole - 36 mg/kg/day in 2 divided doses according to for 10 days

Treatment Guide continued on next page
Cellulitis and Erysipelas (cont)

Patient presents with cellulitis

Assessment of patient to include temp, BP, pulse
Check creatinine, blood sugar (if no recent results)
Mark demarcation line of redness with indelible pen
If wound ooze, do swab for culture

Early uncomplicated cellulitis?

Yes

Give oral Flucloxacillin 500mg -
1g PO QID 10 days
Consider stat IV dose 1g
Flucloxacillin
Allergy Penicillin:
Emycin 800mg PO bd 10 days
Give analgesia
Stop/Avoid NSAID if patient
taking these
Arrange 24/48 hour review

No

Meets criteria for IV antibiotics?

Yes

Suitable for community management?

Yes

Insert cannula suitable for being left in place for 3 days
Check contraindications
Give Cefazolin 2g IV daily – for 3 days
Give Probenecid 1g PO daily for 3 days
Give analgesia
Stop/Avoid NSAID
Flucloxacillin 500mg PO QID from day 4
Refer District Nurses or arrange home visits to provide day 2 and 3
IV Cefazolin
Ensure patient is reviewed and referred for admission if not
responding. Check at each visit – day 2, 3. Remove cannula day 3.

No

No

Refer for admission
Cellulitis and Erysipelas (cont)

Criteria for community cephazolin treatment

At least one of the following:
- Failed trial of oral antibiotic (+/- IV flucloxacillin): no improvement after 48 hours or deterioration after 24 hours
- At least one comorbidity in the presence of significant cellulitis: (diabetes, PVD, immunosuppression/steroids, obesity, severe varicose veins, prosthesis – valve or joint, heavy alcohol intake, age >65 years)
- Severity of cellulitis (blistering, purpura, necrosis, large area, lymphangitis)
- Toxic symptoms/signs (rigors, hypotension, tachycardia, tachypnoea)
- Temperature >38.0

Contraindications to Community Treatment
Referral for admission is required in the presence of:

1. Systemic toxicity
   - Fever >38.5C
   - Systemic signs or complications of severe infection HR >100/hypotension/renal failure
   - Altered mental status

2. Co-morbid conditions
   - Poorly controlled diabetes
   - Peripheral ulcers, unless chronic and well managed
   - Immunosuppression
   - Chronic renal failure, Cr >250, CrCl <30ml/min
   - Pregnancy
   - Prosthesis – consider admission

3. Drug Related Issues
   - Allergy to Cefazolin or other cephalosporin type antibiotic
   - Patients unable to take Probenecid (consider drug interactions, if evidence of acute gout or patient is tested for performance-enhancing drugs as part of their sport – offer them the choice and provide documentation)
   - On steroids or immunosuppressants – consider admission

4. Wound condition issues
   - Large, fluctuant abscesses
   - Signs of foreign body, gas producing organism, osteomyelitis
   - Discharging abscess that will require formal debridement
   - Facial or orbital involvement
   - Possibility of necrotising infection
   - Severe pain
   - Joint involvement
   - Underlying fracture

5. Social circumstances
   - Significant disability with lack of appropriate support at home
   - Significant reduction to activities of daily living
   - Under 16 years old
   - Living outside District Nurse or Rural Nurse Specialist area

Consider services available through Community Service Coordination if planning home treatment eg. Meals on Wheels, home help etc.
Cellulitis and Erysipelas (cont)

Resources

- NZF Co-trimoxazole
- NZF Erythromycin
- NZF Flucloxacillin

References
Management Guidelines for Common Medical Conditions, CDHB 2009
Guide to Pathogens and Antibiotic Treatment, 7th Ed