NHS
Greater Glasgow and Clyde

# CLINICAL GUIDELINE

# OPAT pathway adults (>=16) with complicated SSTI affecting upper or lower limb(s) or face (erysipelas)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

| | |
|---|---|
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| **Approval Group:** | Antimicrobial Utilisation Committee |

**Important Note**:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

# GGC Out-patient parenteral antibiotic therapy (OPAT) pathway for the management of adults (≥ 16 years) with complicated skin and soft tissue infections (SSTI) affecting their upper or lower limb(s) or face (erysipelas)

For OPAT/ambulatory care/Hospital at Home clinicians, including advanced nurse practitioners or other non-medical prescribers (within competency framework) and non-prescribing OPAT specialist nurses (in accordance with local OPAT SSTI patient group direction)

**Consider and exclude SSTI mimics** (see page 2, point 1) and **assess severity and suitability for OPAT** (see below).

## Severity Assessment

### Category 1 (NEWS 0-1)

Patients with no uncontrolled co-morbidities requiring in-patient assessment

**And**

Systemically well

**And**

Not yet tried oral antibiotics

### Category 2 (NEWS 0-1)

Patients with no uncontrolled co-morbidities requiring in-patient assessment

**And**

Mild systemic illness

**Or**

Well with condition complicating or delaying infection resolution, e.g. peripheral vascular disease, chronic venous insufficiency or morbid obesity

**Or**

Well but cellulitis progression despite appropriate choice and dose of oral antibiotic

### Category 3 (NEWS ≥ 2)

Patients with significant systemic upset, e.g. acute confusion, tachycardia, tachypnoea, hypotension or persistent pyrexia

**Or**

Unstable co-morbidities, e.g. acute kidney injury (AKI), uncontrolled blood sugar or cardiac decompensation

## OPAT Suitability Assessment

### Give oral antibiotics

Flucloxacillin 1g 6 hourly

***Alternative in patients with penicillin allergy:*** Doxycycline 100mg 12 hourly

**Total duration 5 days** (Check BNF for interactions, including cation interactions: see page 2, point 5)

### Requires IV antibiotics

**Is the patient ambulatory and self-caring or has appropriate carer support and access to OPAT does not delay treatment?**

**No** → **In-patient IV antibiotics required**

See NHS GGC in-patient infection management guidelines

**Yes** → **OPAT Suitability Assessment**

**Does patient require additional assessment or have any exclusion criteria?**

**Yes** → **Additional Assessment Required**

**Patients in the groups below may be suitable for OPAT but require discussion with or assessment by OPAT medical staff and, potentially, adjustment of antibiotic regimen:**

- ❑ Recent hospital admission
- ❑ Diabetic foot ulcer with cellulitis
- ❑ eGFR <30 ml/min/1.73 m²
- ❑ People who inject drugs (PWIDs)
- ❑ Pregnant or breast feeding
- ❑ Immunosuppressed
- ❑ Previous or current MRSA
- ❑ Human or animal bite cellulitis

**Discuss with specialist surgical or orthopaedic team in case further intervention required if the patient has:**

- ❑ Surgical site infection
- ❑ Hand trauma
- ❑ Possible bone/joint infection or bursitis

**No** → **OPAT Exclusion Criteria**

**Patients in these groups not eligible for OPAT:**

- ❑ Under 16 years (consider paediatric pathway, if available)
- ❑ Pain out of proportion to skin changes, or skin changes that are rapidly evolving or blistering
- ❑ Unstable co-morbidities, e.g. AKI, cardiac decompensation or uncontrolled blood sugars
- ❑ Current *Clostridioides difficile* infection
- ❑ (Peri)-orbital cellulitis
- ❑ Other medical problems requiring in-patient management

## Treatment

**OPAT 1st line: IV Ceftriaxone 2g once daily & review daily for IVOST see page 2, point 5 (Note: not for in-patient use)**

**Alternative if patient has severe anaphylaxis or other life-threatening penicillin or beta-lactam allergy or *C. difficile* concern** (including episode in previous 3 months)

**Daptomycin IV 4-6mg/kg and review daily**

See page 2 for notes on daptomycin dosing, some OPAT services may use Teicoplanin (Note: not for in-patient use).

**If daily IV administration is not possible for logistical reasons** *e.g.* geographically remote, care home resident, people who inject drugs, or with alcohol dependency, or a significant mental health morbidity or a history of deliberate self-harm – **Consider IV Dalbavancin 1g once and review 1 week later (on day 8), or sooner if required.** Discuss with pharmacy for patients with extremes of weight (Note: not for in-patient use).

*Dalbavancin is a Protected Antibiotic – only use on Infectious Diseases OPAT consultant recommendation, Safety & efficacy of Dalbavancin in age<18 years is not established.*

**Please see page 2 for support guidance for OPAT management**

# Guidance to support SAPG OPAT Pathway for management of adults with complicated SSTI

**This guidance is for patients in an out-patient or OPAT setting only, refer to local antimicrobial policy for in-patient management.**

1. **Consider SSTI mimics/other dermopathies**
   **Note:** Bilateral skin changes are usually **not** cellulitis.
   - **Common:** Venous eczema, dependent rubor in venous insufficiency, superficial thrombophlebitis, irritant or allergic contact dermatitis, deep vein thrombosis, septic arthritis.
   - **Less common:** Erythema nodosum, pyoderma gangrenosum, erythema multiforme, leukocytoclastic vasculitis.

2. **Initial OPAT review** (If patient is in hospital follow NHS GGC in-patient infection management guideline until OPAT review).
   - Take baseline bloods including urea and electrolytes (U&Es), C-reactive protein (CRP), liver function tests (LFTs), full blood count (FBC), and blood cultures if possible.
   - In patients with lower limb cellulitis examine both feet for, and treat, tinea pedis, if present. ADD Miconazole nitrate 2 % cream apply twice daily. Duration: Continue for 7 days after all signs and symptoms have disappeared.
   - **IV ceftriaxone administration**
     - Administer IV ceftriaxone 2g daily via 30 minute infusion and observe for 30 minutes.
   - **IV daptomycin administration** (if previous anaphylaxis or other life-threatening penicillin allergy or *C. difficile* concern)
     - Check baseline creatine kinase (CK) and highlight pulmonary eosinophilia risk.
     - Administer IV daptomycin 4-6 mg/kg (as per local guidance) daily via 3 minute injection or 30 minute infusion and observe for 30 minutes.
     - If Cr Cl <30ml/min, give IV daptomycin on alternate days.
     - Some OPAT services may prefer teicoplanin to daptomycin; refer to local guidance on dosing as, currently, there is no SAPG consensus on optimal dosing in the OPAT setting.

***Table:*** *Daptomycin 6mg/kg dosing regimen adapted from Greater Glasgow and Clyde OPAT*

| Body weight | 6mg/kg dosing* |
|---|---|
| < 59kg | 350mg |
| 59 - 83kg | 500mg |
| 84 - 117kg | 700mg |
| 118 - 142kg | 850mg |
| > 142kg | discuss with pharmacy |

**Dose rounded to nearest vial*

3. **Daily assessment whilst on IV therapy**
   - Assess national early warning score (NEWS), including temperature, pulse, BP and respiratory rate, skin heat, erythema, pain and swelling.
   - Continue IV therapy until there is significant reduction in heat, erythema, pain and normal temperature (<38°C), heart rate (<100 bpm) and respiratory rate (<20 breaths/ min).
   - If clinical deterioration observed at any time, or no improvement at 72 hours, arrange for medical review.
   - Average IV therapy length 48-96 hours (including any IV doses given prior to OPAT).

4. **If unable to review patient daily due to logistical reason(s): consider single dose of dalbavancin (on Infectious diseases OPAT approval)**
   - **Dalbavancin administration (avoid if known hypersensitivity to other glycopeptides)**
     - Administer IV dalbavancin 1g infusion over 30 minutes via peripheral cannula and observe for 30 minutes.
     - Review at one week to assess whether further antibiotic therapy is required, or sooner if any concern
     - The majority of patients require a single dalbavancin infusion only.
     - Discuss with pharmacy if caring for patients with extremes of weight or for repeat dosing advice.

5. **Switch to oral when patient shows significant clinical improvement in local signs of infection**
   Oral flucloxacillin 1g 6 hourly for 5 days duration **OR** (*if previous anaphylaxis or other life-threatening penicillin allergy concern)* oral doxycycline 100 mg 12 hourly for 5 days duration.
   **Note:**
   **Doxycycline**: Do not co-administer with iron. Stop/withhold other cation-containing products (including calcium, calcium containing nutritional supplements, magnesium, aluminium, zinc or sucralfate) until doxycycline course is complete. If concomitant administration necessary then give the cation-containing product at least 2 hours before or after doxycycline. See British National Formulary (BNF) for other interactions.

6. **Advice for patients**
   - Importance of good skincare, e.g. application of non-perfumed emollient or soap substitute to affected area(s).
   - Benefits of elevating the affected limb as much as possible until infection resolves.

7. **Follow up and communication**
   - Provide all patients opportunity for telephone/remote review during OPAT and ensure communication with GP.
   - Include admission plan in case a patient experiences deterioration out-of-hours and offer follow up/advice following completion of oral therapy.

Created by: Scottish Antimicrobial Stewardship Group (SAPG) OPAT Sub group | Approved by SAPG: June 2022 | Review date: June 2025 Amended by GGC AUC Sept 2022