

POLICY AND PROCEDURE ON

HOME TREATMENT OF CELLULITIS OF UPPER AND

LOWER LIMBS IN THE EMERGENCY DEPARTMENT

IN CORK UNIVERSITY HOSPITAL GROUP

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1 Policy Statement

IV antibiotics are frequently required for several days for the treatment of cellulitis. The community intervention team can facilitate the administration of these antimicrobials outside of the hospital setting.

2 Purpose

The purpose of this policy is to outline the processes of referring patients for home intravenous treatment with broad spectrum antibiotics for the treatment of Cellulitis by the Community Intervention Team. It is anticipated that the move to once or twice daily IV administration from the previous recommendation of four times daily administration of alternative antimicrobials will substantially increase the CIT/OPAT capacity to provide home antimicrobial services to patients in the region.

3 Scope

This policy covers patients > 16 years of age with upper or lower limb cellulitis requiring IV therapy who fit the inclusion criteria as outlined in the policy, and who are admitted to the Emergency Department. The policy will operate Monday to Friday from 9am to 5pm. In extreme circumstances, where medications are not available via the OPAT portal for patients in MSSU, these patients will also be included in this policy.

4 Legislation/Related Policies

P/PR-CUH-063 Policy and procedure on Home treatment of cellulitis of upper and lower limbs in the Emergency Department in Cork University Hospital Group

Managing Cellulitis in the Community (HSE)

5 Glossary of Terms and Definitions

Community Intervention team: Nursing and home help service provided by the HSE south for patients with acute episodes or illnesses who have been medically assessed, and intravenous medication initiated, and it has been determined that their care can be managed in their own home.

OPAT : Outpatient Parenteral Antimicrobial Therapy

CDU: Clinical decisions unit

WFI: Water for injections

NaCl 0.9% : Sodium chloride 0.9%

Cliniscript: The Hospital pharmacy software system used in Cork University Hospital for the entry and ordering of drugs.

ED: Emergency department

6 Roles and Responsibilities

6.1 Responsibility for complying with the policy

Responsibility for complying with this policy lies with all medical, nursing and pharmacy staff involved in the care of the patient.

6.2 Responsibility for ensuring compliance with the policy

It is the responsibility of all Emergency Medicine and Clinical Nurse managers to ensure doctors in training (DIT) and nursing staff are aware of this policy and that it is implemented accordingly

7 Procedure

On confirmation of a cellulitis diagnosis of the upper or lower limb requiring IV antibiotic therapy, the following steps must be undertaken;

7.1 CIT referral

The patient is assessed for suitability for referral.

CIT Referral Criteria:

- The patient must be over 16 years
- Have an acceptable standard of living conditions. (The structure of the accommodation must be permanent in nature, have hot and cold running water and indoor toilet facilities).
- Demonstrate an acceptable understanding of both verbal and written English, or evidence of an equally proficient supportive home translator available at all times.
- Have a contact number
- Fit the CIT Inclusion criteria

7.2 OPAT suitability

The patient is assessed for suitability for OPAT.

Exclusion Criteria

- Underlying Osteomyelitis, Necrotizing Fasciitis, Septic Joint or Abscess are not excluded from the differential diagnosis.
- Age <16 years
- History of Intravenous drug usePregnancy
- Renal impairment
- Cellulitis associated with a bursitis

- Rapidly progressing cellulitis
- Facial cellulitis
- Underlying abscess requiring drainage
- Systolic BP <100mmHG
- Pain out of proportion to the appearance of the cellulitis
- Diabetes related infections
- History of *Clostridium difficile* infection
- Other active medical conditions
- Severe hypersensitivity to beta-lactams
- Medical team unable to obtain Full blood count, Urea and electrolytes, Liver Function Test and C-Reactive Protein pre treatment

7.3 Investigations

The Emergency Medicine Consultant confirms that results of any blood tests or other investigations are acceptable.

7.4 Probenecid suitability

The Emergency Medicine Consultant checks to see if probenecid can be administered to the patient.

Probenecid is contra-indicated with any of the following medications;

- Methotrexate
- Sodium phenylbutyrate
- Ketorolac
- Pyrazinamide
- High dose aspirin
- Dapsone
- Heparin
- Fosfomycin

It may also be unsuitable for use due to intolerance.

7.5 Documentation

If the patient fits the criteria for inclusion, the Emergency Medicine Consultation will document on the Emergency Department Patient Record Chart that the patient is suitable for home treatment of cellulitis of upper or lower limb by the Community Intervention Team.

7.6 Consent form

A consent form is signed by the patient and the Emergency Medicine Consultant/DIT.

7.7 Prescription 1 versus Prescription 2

The Emergency Medicine Consultant/DIT determines the appropriate choice of treatment for the patient.

If the patient has no contra-indications/intolerance to probenecid, then treatment is as follows:

Cefazolin 2g od IV PLUS Probenecid 1g od PO (Prescription 1)

If the patient has a contra-indication/intolerance as mentioned above, then treatment is as follows:

Cefazolin 2g bd IV (Prescription 2)

7.8 Home IV antibiotic prescription

The Emergency Medicine Consultant/DIT completes the Home IV antibiotic prescription (Appendix 2A or 2B). The choice of treatment depends on whether or not probenecid can safely be administered.

7.9 Nursing staff role

Emergency Department nursing staff will:

- arrange for medications to be dispensed from pharmacy.
- Phone CIT with regard to the referral
- If accepted, fax or email referral and prescription to CIT
- inform patients GP of discharge arrangement by phone or fax
- arrange and provide an appointment for the patient to return to the review clinic as directed by the Emergency Medicine consultant.

7.10 On Discharge

1. The Emergency medicines consultant/DIT confirms that the Patient has **received and has tolerated 2 doses** of IV antibiotics
2. The patient is advised that if they are concerned for any reason they may refer back to the Clinical Decisions Unit at any time, day or night (Appendix 1).
3. The patient is advised that they **MUST** not return to work for the duration of their IV therapy.
4. The patient is given a pharmacy pack (Appendix 4)
5. Patient is advised to bring pharmacy pack and CIT treatment record sheet with them at all times to the Review Clinic and any visit to the Clinical Decisions Unit.
6. The patient's medical record chart is retained in the Clinical Decision Unit in the designated section for the duration of the home treatment.

7.11 Review Clinic

1. Each patient will be reviewed in the CDU within 72 hours of discharge.
2. On each visit, a decision will be made to discontinue IV antibiotics or continue with same for a further 48 hours.
3. If the treatment is to be extended, CDU contacts CIT, and emails or faxes updated documentation to include prescription.
4. Pharmacy dispenses the appropriate prescription for the patient.
5. A further review at the Review Clinic will continue until patient changed to oral antibiotics and discharged to patient's GP.
6. The GP will then be issued a discharge letter from the Review Clinic

8 Implementation plan

The policy will be made available on QPulse. The relevant stakeholders in the Emergency Department, Clinical Decision Unit and pharmacy department will be educated on the policy, for immediate implementation on approval.

9 Revision and audit

This policy will be reviewed every two years, or sooner if any relevant changes to procedure within the hospital.

10 References/Bibliography

An Bord Altranais, (2007e), *Guidance to Nurses and Midwives on Medication Management*, An Bord Altranais, Dublin.

An Bord Altranais (2000), *Scope of Nursing and Midwifery Practice Framework*, An Bord Altranais, Dublin.

Summary of product characteristics for Cefazolin, Hikma brand.

Summary of product characteristics for Probenecid USP 500mg tablets distributed by Lannett company

Health Service Executive (2005) *Guideline on the Nursing Management and Administration of Subcutaneous Medication in the Community in HSE - South East.*

Management of cellulitis in the community OPAT
<https://www.hse.ie/eng/services/list/3/cits/managcellcomm.pdf>
accessed 19/7/2018

11 Appendices

11.1 Appendix 1: Home Treatment of Cellulitis Patient Information Leaflet.



Clinical Decision Unit, Emergency Department, Cork University Hospital

Telephone Number: 021 4920231

What is Cellulitis?

Cellulitis is a skin infection caused by common bacteria that normally live on your skin. These bacteria only cause a problem if they get underneath your skin, often through a simple break or cut in the skin. You will require intravenous (IV) antibiotics to treat this infection.

What does receiving IV antibiotic therapy at home involve?

This involves a nurse from the Community Intervention Team visiting your home to give the IV antibiotics you have been prescribed.

What happens next?

You will be assessed by the Consultant in Emergency Medicine to see if you are suitable to receive treatment at home.

A plastic cannula will be inserted into your hand/arm through which you will receive your injections.

Following insertion of a cannula you will be admitted to the Clinical Decision Unit in the Emergency Department for commencement of your treatment.

Your response to treatment will be monitored while you are in the Clinical Decision Unit and after assessment.

What is a cannula?

A cannula is a small hollow plastic tube inserted into your hand/arm. This tube will be secured with a special bandage. After 72 hours the cannula will be removed. If however you still require intravenous antibiotics, a new cannula will be inserted.

How do I care for my cannula when I am at home?

To prevent infection your cannula must be kept clean and dry at all times at the exit site. A transparent dressing will cover the exit site. You should avoid heavy lifting and excessive movement of the arm to prevent dislodgement.

You can still bath/shower so long as the line is kept clean and dry. The line should not be immersed in the bath. If the dressing does become wet underneath, please tell the Community Intervention Team nurse when they arrive and they will renew it. Please do not swim with the cannula in place.

If the cannula site becomes red or painful this may indicate local infection at the site of cannula. Other signs of infection include inflammation, tenderness. If you notice any of these please contact the Clinical Decision Unit as soon as possible to arrange insertion of a new cannula.

If the cannula comes out, apply direct pressure to the area with cotton wool, gauze or a tissue. Maintain this pressure continuously until the bleeding has completely stopped. This can take several minutes—repeatedly removing the pressure to see if the bleeding has stopped prolongs the length of time it takes for this to happen. When the bleeding has stopped, apply a plaster.

Contact the Clinical Decision Unit, Emergency Department 021/4920231 as soon as possible to organise insertion of a new cannula in order to complete your course of antibiotic.

Keep applying direct pressure to the area.

Lift your arm above your head.

A nurse will remove the cannula when it is decided your IV antibiotics can be changed to tablet form. It will come out easily and be dressed with sterile gauze.

The other most important factor in your recovery is keeping the affected arm/leg raised (as explained prior to your discharge) at all times.

Take regular pain killers as advised prior to your discharge and do not return to work.

About the Community Intervention Team

This team was established to provide nursing and home help services in the community on a 7-day week bases within a 16km radius of Cork City.

As well as administering your treatment in the home the nurse will also monitor the progress of your treatment. Your GP will be advised that you are receiving home treatment for cellulitis. However the staff of the Clinical Decision Unit and the Emergency Department, in conjunction with

the Community Intervention Team, will be your main carers for the course of this treatment.

What happens now?

Before you leave the hospital you will be given a pharmacy pack containing the following;

Patient Information Leaflet For home treatment of cellulitis

Patient information leaflet for cefazolin

Patient information for Probenecid (if part of prescription)

Antibiotics for your treatment

Community Intervention Team Referral Form.

Home IV Antibiotic Prescription

An appointment to return in 48- 72 hours to the Emergency Department Review Clinic or the Clinical Decision Unit.

Bring the pharmacy pack with you whenever you return to the hospital.

What are the risks?

Allergic reaction to a drug may sometimes occur when a new drug is given. Your risk of a significant allergic reaction during the home phase of your treatment is very low as you have already received two or more doses of the antibiotic prior to your discharge from hospital. It is extremely unusual for any significant reaction to occur with further doses of the same drug.

When you return for your appointment:

Your bloods tests may be repeated.

The Emergency Medicine Physician will make a decision to discontinue IV antibiotics or continue with same for a further 48 hours.

A further clinic review will continue until the patient is changed to oral antibiotics and discharged to the patients GP. The GP will then be issued a discharge letter from the review clinic.

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If there are any issues that you are worried about in relation to the program, or you are concerned about your health on or after discharge you can contact a member of the CDU team who liaise with the Community Intervention Team (CIT)-

Contact Details

Clinical Decision Unit, Emergency Department, Cork University Hospital
24 hours:

Telephone Number: 021 4920231

Community Intervention Team

Between 08:00 - 23:30 on Weekdays, Weekends: & Bank Holidays.

Telephone Number: 1890 837 427

fax: 0214840093

email - southwestcit@healthmail.ie

11.2 Appendix 2: Home IV Antibiotic Prescriptions



CORK UNIVERSITY HOSPITAL

**OSPIDÉAL OLLSCOIL
CHORCAÍ**

021-4546400

HOME IV ANTIBIOTIC PRESCRIPTION : Prescription 1

PATIENT INFORMATION (do not use addressogram)

Name: _____

Address: _____

MRN. _____ DOB. _____

Tel: Home _____ Tel: Mobile _____

Diagnosis: _____

Allergies:

Rx :
Cefazolin 2g od IV
Probenecid 1g od po
WFI 10ml ampoule x 1 od
NaCl 0.9% ampoule x 2 od

By _____ days

Prescribers signature: _____

MCN/NMBI No: _____

Name (Please print): _____

Bleep number: _____

Date: _____

Review date: _____

Please note Cefazolin and Probenecid are Unlicensed medications.



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

CORK UNIVERSITY HOSPITAL

OSPIDÉAL OLLSCOIL
CHORCAÍ

021-4546400

HOME IV ANTIBIOTIC PRESCRIPTION :
Prescription 2

PATIENT INFORMATION (do not use addressogram)

Name: _____

Address: _____

MRN. _____ DOB. _____

Tel: Home _____ Tel: Mobile _____

Diagnosis: _____

Allergies:

Rx :
Cefazolin 2g bd IV
WFI 10ml ampoule x 1 bd
NaCl 0.9% ampoule x 2 bd

By _____ days

Prescribers signature: _____

MCN/NMBI No: _____

Name (Please print): _____

Bleep number: _____

Date: _____

Review date: _____

Please note Cefazolin is an Unlicensed medication.

Pharmacy Instructions

1. From the home IV antibiotics prescription, identify the number of days treatment to supply based on when the review date is.
2. Create a patient file (if not already there) on Cliniscript using the pharmacy cost centre "CIT" (ED community intervention team)
3. Charge and label each medication appropriately, attaching an 'Unlicensed medication' sticker to all as appropriate.
4. File each prescription in the Home IV antibiotics folder once dispensed.

SAMPLE LABELS:

Cefazolin 1g IV (quantity) 2 vials to be injected (once or twice) daily Date: Patient name:
--

Probenecid 500mg tabs (quantity) Two tablets to be taken daily Date: Patient name:
--

NB: Please check the expected return day of the patient if the prescription is received on Wednesday/Thursday. A second pack may need to be supplied to cover the weekend.

Pharmacy Contact Details

ED Pharmacist 087-3629990
Pharmacy Ext : 22542/22146

CDU Contact

CDU Intern Bleep 100
CDU Ext:20231

11.3 Appendix 3: Community Intervention Team Referral Form



Community Intervention Team referral form

*****Attach patient sticker to this area*****

Assessment by: The Emergency Consultant yes

A minimum of 2 doses of antibiotic's given yes

Consultant's Name: _____

Patient phone no: _____

(1) /NOK Contact person: _____

Phone contact for NOK: _____

(2) /NOK Contact person: _____

Phone contact for NOK: _____

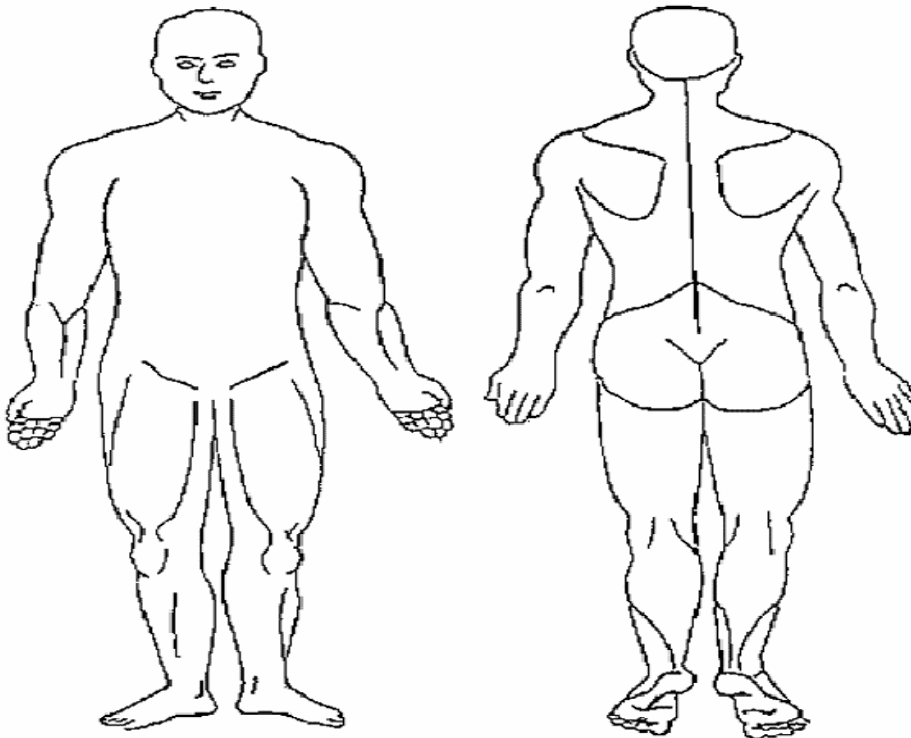
Patient's Clinical Status

*****Attach patient sticker to this area*****

Diagnosis: _

Site of infection Right Left
 Upper arm Forearm
 Foot Lower leg Thigh

(If the location is elsewhere, the patient is NOT suitable for home Rx)



Patient's Clinical status

- Current History

11.4 Appendix 4: Pharmacy Pack

Contents:

- Home IV antibiotic Prescription
- Contents of Prescription 1 or Prescription 2
- Community Intervention Team Referral Form.
- An appointment to return in 48- 72 hours to the Emergency Department Review Clinic or the Clinical Decision Unit.