Integrated Care Pathway for Outpatient and Home Intravenous Treatment Of Class 2 Cellulitis in Adults

June 2015

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Author:	Community Division IV therapy group Outpatient Parental Antibiotic therapy (OPAT) group	
Contributors:	OPAT team	
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Governance requirements:

CQC dimensions:	1. Respecting and involving people who use services 4. Care and Welfare of people who use services 9. Management of Medicines 14. Supporting Workers 16. Assessing and Monitoring the Quality of the Service
Equality impact assessment	Screening completed January 2012
Patient information leaflet	Ratified via governance team ref no: ICT-001-cellulitis 2012

Ratification Process:

Document presented to	Date	
Medicines Management Board	18/4/2012	07/2015
Patient Safety Group	25/4/2012	

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INTRODUCTION

This care pathway has been developed by East Lancashire Hospitals NHS Trust (ELHT)- Integrated Care Group to deliver Intravenous therapy treatment for patients with uncomplicated cellulitis (Class 2) in a community setting- this could be care in a patient's home, care home or treatment room/community clinic. This pathway also incorporates previous work developed by the Outpatient Parental Antibiotic therapy (OPAT) working group and can be used to support outpatient intravenous antibiotic administration within ELHT medical assessment unit.

The key forces and drivers for change in delivery of this care are:

- Improved patient experience
- Unscheduled hospital admission avoidance
- Earlier discharge of patients for care delivered in community settings
- Promoting and supporting patient choice in care delivery
- Reduced length of stay in hospital
- Delivering care in the most cost effective way

National Forces and Drivers for Change	**Local** Forces and Drivers for Change
▪ QIPP work stream- Long Term Conditions ▪ National Service Framework- Long Term Conditions 2005. ▪ White Paper-'Our Health, Our Care, Our Say' (2006) ▪ NHS Plan (2000). ▪ Equality & Excellence Liberating the NHS **(**DH 2010) ▪ NHS 5 year forward view (October 2014)	▪ ELHT vision and values ▪ ELHT Strategic and Divisional objectives 2011/12 ▪ Previous winter pressures in ELHT affecting bed capacity ▪ Local request via Airedale NHS Trust and Pendle GPs for collaboration with this initiative ▪ Roll out of virtual ward concept across all localities ▪ Intensive Home Support (Better Care Fund: Policy Framework – December 2014)

USING THE CARE PATHWAY

The care pathway has been developed as a guide to clinical care and aid to documenting patient progress. It has been designed to be used in conjunction with current clinical documentation in place within services and divisions.
Healthcare professionals are expected to exercise professional judgement when using the pathway, which should be used in conjunction with other existing organisational policies, listed below:

East Lancashire Hospitals (ELHT) NHS Trust Policies and guidelines which relate to this care pathway and should be referenced to are:

- C14 Policy for consent to examination or treatment
- CP2 Policy and code of practice for the prevention and management of inoculation/sharps injuries
- IC1 Hand Hygiene policy
- IC18 Standard (Universal) Infection control precautions
- IC24 Aseptic Non Touch Technique (ANTT)
- Antimicrobial Formulary Secondary Care
- Preparation and Administration of Intravenous Drugs and Infusions Policy
- C19 Resuscitation Procedures
- CP17 Venous thrombo embolism prophylaxis for Adult patients (non obstetric)

Requirements for staff

All staff using this pathway should be conversant and compliant with ELHT policies listed above.

- Staff administering intravenous medicines must be up to date with all associated mandatory training linked to this clinical procedure i.e. Life support training including management of anaphylaxis. In the rare event of a patient experiencing anaphylaxis linked to the administration of medicines it is a requirement of staff to follow emergency care procedures outlined to them in their life support training. It is also necessary to clearly document any features of a suspected anaphylactic reaction, noting the timing and the circumstances before the onset to identify any possible triggers (NICE 2011).

- Staff undertaking this procedure should meet the practice and training requirements outlined in ELHT Preparation and administration of Intravenous drugs policy (2012).

- Reference information for the administration and preparation of intravenous medicines can be obtained from the University College London Injectable Medicines guides available in bases and wards and via the MEDUSA website accessible from ELHT intranet

Partnership working

It is an expectation that good communication to support patient care in delivering this pathway takes place. As this document has been designed to be used across different divisions within the organisation and General Practitioners (GPs) it is essential that all partners involved in the care pathway communicate any issues or variances in care so that seamless and safe care takes place.

Clinical Classes of Cellulitis (CREST 2005)

The Clinical Resource Efficiency Support Team (CREST) developed in 2005 a nationally recognised class system for patients with cellulitis. This care pathway is suitable for patients with a class 2 cellulitis. Patients assessed as having Class 3 cellulitis or above must be considered for in patient treatment in acute hospital settings.

Clinical indication	First Line Treatment Plan
Class 1 patients have no signs of systemic toxicity, have no uncontrolled co-morbidities and can usually be managed with oral antimicrobials on an outpatient basis.	Oral antibiotics- as per ELHT antibiotic formulary
Class 2 patients are either systemically ill or systemically well but with a co-morbidity such as peripheral vascular disease, chronic venous insufficiency or morbid obesity which may complicate or delay resolution of their infection.	Intravenous antibiotics administered as an outpatient or within community settings- IV Teicoplanin
Class 3 patients may have a significant systemic upset such as acute confusion, tachycardia, tachypnoea, hypotension or may have unstable co-morbidities that may interfere with a response to therapy or have a limb threatening infection due to vascular compromise.	Admitted to acute hospital setting
Class 4 patients have sepsis syndrome or severe life threatening infection such as necrotizing fasciitis.	Admitted to acute hospital setting

Differential Diagnosis – Bilateral cellulitis is very rare

Consider:

- Deep vein thrombosis
- Acute oedema due to heart failure,
- Hypoproteinaemia
- Lymphoedema
- Varicose eczema
- Early herpes zoster
- Erythema nodosum
- Allergic contact dermatitis

Monitoring for Clostridium Difficille Infection

All antibiotics can cause Clostridium difficile infection to a lesser or greater extent, therefore in the event of new onset abdominal pain and diarrhoea, the patient should contact their GP or ELHT Medical Assessment Unit. The antibiotic should be stopped pending evaluation by the GP/Medical Assessment Unit.

Further advice can be found with the ELHT Clostridium difficile policy no: IC12

CRITERIA FOR ELHT COMMUNITY/ OUTPATIENT INTRAVENOUS MANAGEMENT

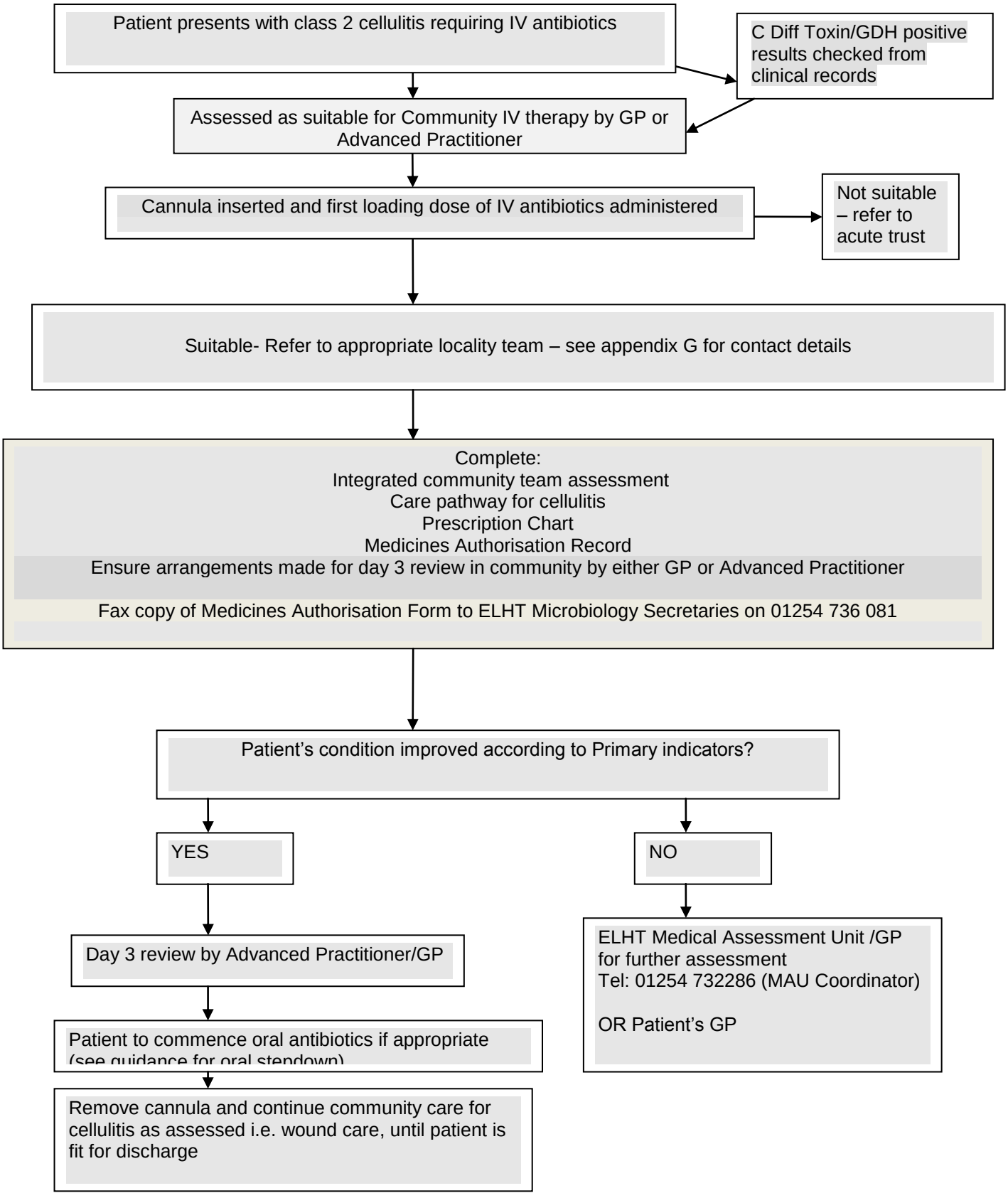
Eligibility Criteria
The patient must have a tick in all boxes below to be deemed suitable for outpatient or home intravenous antibiotic management for the treatment of uncomplicated cellulitis.

Eligibility Requirement	**Present (tick below)**
1. The patient is able to agree, comply with and understand the treatment regimen and be able to give consent. * Professionals to refer to consent policy C14 should best interests decisions need to be considered	
2. The patient or carer must be able to report any potential complications relating to their treatment regimen throughout the day and night	
3. Confirmed diagnosis of uncomplicated cellulitis (class 1 or class 2) - (CREST 2005) page 5.	
4. Renal Profile, LFT, FBC, Glucose CRP blood test taken if indicated	
5. Face to face assessment within 24 hours to exclude possible contraindications and allergies by a medical officer/General Practitioner before commencement of treatment	
6. Patient is 18 years or over	
7. Telephone access and suitable community environment for an aseptic procedure. If these are not available consideration is to be made of an alternative community setting if possible OR the patient is able to attend ELHT Ambulatory Care daily for IV antibiotics.	
8. Patients with diabetes must have well controlled blood glucose. The basis for this should be a recent HbA1c of < 69mmol/mol and a random glucose on the day of admission of <14 mmol/l	
9. Discharge referral process and prescription record of all medicines fully completed	

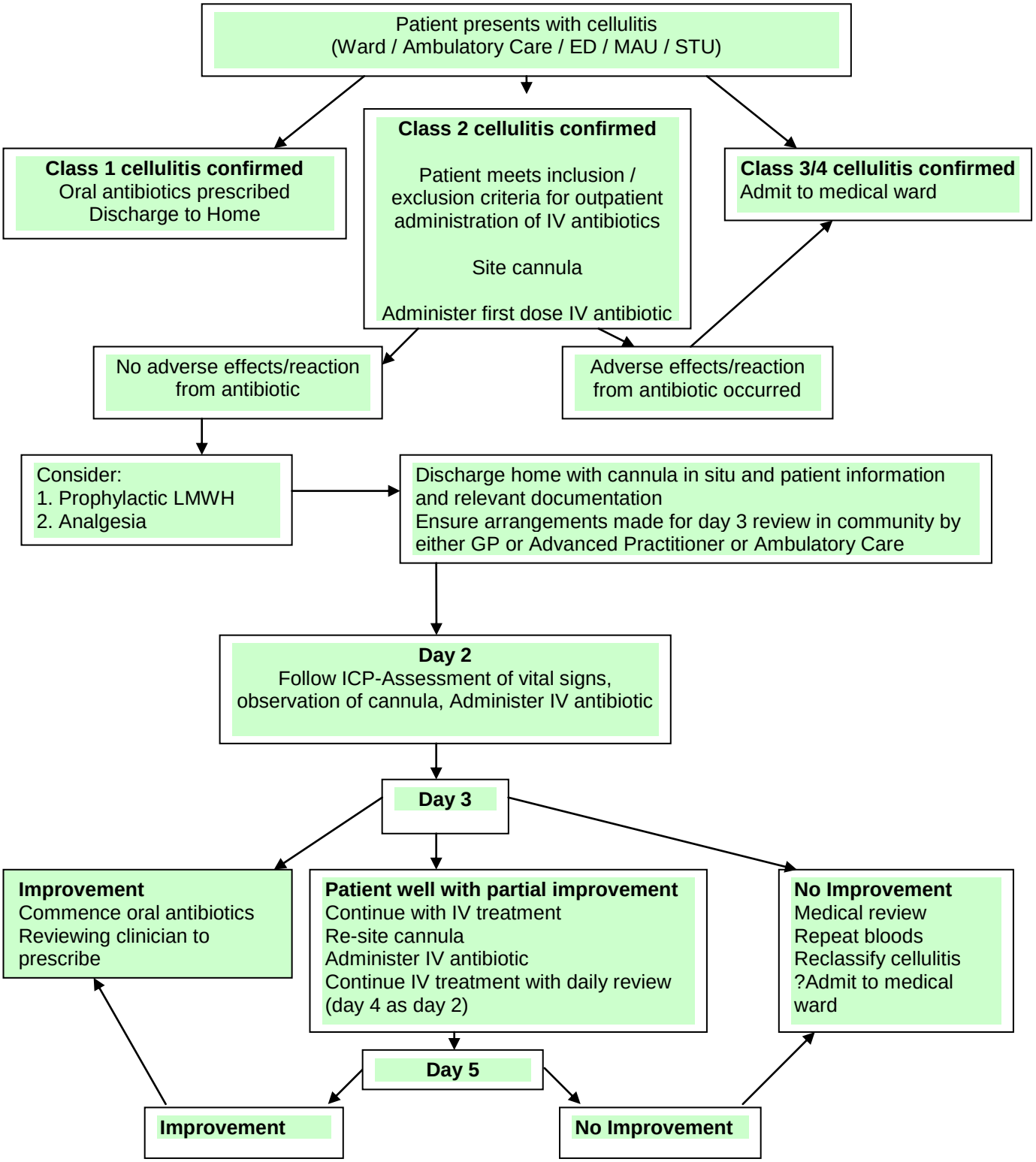
Exclusion Criteria
If the patient has a tick in any of the boxes below they are not suitable for home IV management treatment of uncomplicated cellulitis.

1. Patient declines intravenous therapy	
2. Hypersensitive (allergic) to Teicoplanin	
3. Pregnant/lactating women [subject to clinical review]	
4. Hepatic and/or renal disease [subject to clinical review]	
5. Neutropenia	
6. Inability to manage at home due to present circumstances	
7. Facial cellulitis (which may be Erysipelas)	
8. History of intravenous drug abuse	
10. Any co-existing morbidity, or medical condition with requires admission to hospital e.g. systemic sepsis or suspected necrotising fasciitis	
11. Patients with diabetes who have a foot wound. (Lower limb cellulitis in a patient with diabetes is often an indicator of more serious and deep seated infection)	

Intensive Home Support Patient Pathway for IV therapy for management of class 2 cellulitis



East Lancashire Hospitals step down pathway for outpatient management of IV Antibiotic Treatment of Class 2 Cellulitis – to be utilised when OPAT team unavailable



Intravenous Dosing Guide

Patients ≤ 70kg

LOADING DOSE – to be administered in a supervised setting where the healthcare worker administering the dose is trained and equipped to manage anaphylaxis.

Antibiotic	Dosing	Frequency	Preparation	Administration	Flush
Teicoplanin	800mg*	Once only	See below	Slow IV bolus over 3-5 minutes	Sodium chloride 0.9%

MAINTENANCE DOSE

Antibiotic	Dosing	Frequency	Preparation	Administration	Flush
Teicolpanin	400mg	Once daily	See below	Slow IV bolus over 3-5 minutes	Sodium chloride 0.9%

Patients > 70kg

LOADING DOSE – to be administered in a supervised setting where the healthcare worker administering the dose is trained and equipped to manage anaphylaxis.

Antibiotic	Dosing	Frequency	Preparation	Administration	Flush
Teicoplanin	800mg*	Once only	See below	Slow IV bolus over 3-5 minutes	Sodium chloride 0.9%

MAINTENANCE DOSE

Antibiotic	Dosing	Frequency	Preparation	Administration	Flush
Teicoplanin	800mg	Once daily	See below	Slow IV bolus over 3-5 minutes	Sodium chloride 0.9%

Preparation

Reconstitute each drug vial with the entire vial of water for injection (supplied with the drug). Slowly inject the water for injection down the vial wall, swirl gently or roll to ensure the powder fully dissolves (DO NOT shake). If a froth forms, leave for 15 minutes to settle.

*Loading dose outside of product license

Oral Dosing Guide / VTE assessment

Post Intravenous antibiotic treatment plan for patients following 3-5 day review:

Commence oral antibiotics of:

Flucloxacillin 1g four times per day then review

Or For patients with penicillin allergy-

Clindamycin 450mg four times per day –then review

Maximum course length for both IV and oral antibiotic = 7 - 14 days

Venous Thrombo Embolism (VTE) guidance (ELHT patients on admission)
In order to ensure the risk of DVT or PE is reduced for all adult in-patients (excluding Obstetric patients) the first step is to determine the level of VTE risk for a particular patient so the appropriate prophylaxis can be applied.

All patients must be risk assessed for the development of a venous thrombo-embolism (VTE). For non –obstetric patients this must be done using the VTE risk assessment form contained within the GAD.

Should the patient be deemed as high risk they will need to be prescribed the specialty-specific prophylactic regime. This may involve the use of TED stockings, and low molecular weight heparin prescription.

This will be prescribed by the assessing clinician and staff may need to support the patient with the prescribed regimen and need to follow ELHT Policy CP17 Venous thrombo embolism prophylaxis for Adult patients (non obstetric)

For Community Staff If issues with cannulation identified –
Staff to contact ward 28 BGH (Pendle patients) and refer for cannulation [MON- FRI 9 -5pm only]
Tel: 01282 804028

OR

Staff to contact Ambulatory Care / Urgent Care at Royal Blackburn Hospital
Tel: 01254 732210

ELHT Community IV Therapy Referral Form

To be completed within ELHT only and copy given to patient/carer on discharge with care pathway

Patient Name .....

Date of birth..... NHS number: …….

Consultant / Named Lead..... GP: …….

Date of admission ..... Date of discharge .....

Time of last intravenous antibiotic therapy ..... Time next dose due: ……

Cannula in situ ☐ Site:…… Date/Time inserted:…….

Diagnosis:…….. …… Allergies: …….. Previous CDT/GDH positive results:…….

EXCLUSION CRITERIA CHECKED AND PATIENT IS SUITABLE FOR PATHWAY ☐

PATIENT CONSENTS TO COMMENCE PATHWAY ☐

Ring patient locality District Nursing team to ensure capacity available (see Appendix G) ☐

Fax **Community IV Therapy Referal Form** to patient locality District Nursing team ☐

PATIENT HAS ANY REQUIRED MEDICINES AND DRESSINGS TO TAKE HOME INCLUDING:

Outpatient appointment booked if needed	Yes ☐	N/A ☐
Transport booked if appropriate	NWAS ☐	Relatives/Carer ☐
This care pathway (including patient information)	Yes ☐	
Patient Discharge summary with prescribed medicines/Flushes:	Yes ☐	

Discharging Nurses Signature …..... PRINT NAME ….....

Discharging Doctor's name (PRINT)…… Signature:……

Designation:……Bleep number: …… Telephone Number ….....

EHLT ward/department assessed & referred from:……..

If all the boxes are not ticked please specify why/ or instructions for visiting professional to contact department:

…….....

……

- Fax copy of **Community IV therapy Referal Form** to ELHT microbiology secretary Fax: 01254 736081

Patient Name .....Date of birth ..... NHS number: ……

At Hospital ☐ **At Home** ☐

Allergies/Drug Intolerances: Incl. reaction & source of information

Date: Sign:

Antibiotic Treatment Day 1 Date Time
*2 Registered Nurses are required for administration of intravenous antibiotic (NMC 2010)

	Care standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signatures or record V for variance**
A	Daily monitoring sheet completed and vital signs(appendices C & D)	
B	Check no increase in bowel frequency	
C	Record below any history of previous C Diff/GDH positive results	
D	Condition and treatment explained to patient and relatives/carers. patient and relatives/carers understand treatment plan and consent gained	
E	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
F	Skin disinfection -Before insertion of Cannula - 2% Chlorhexidine in 70% Alcohol and allowed to dry for 30 seconds Cannula is inserted using aseptic non touch technique Cannula type: Site : Cannula is patent with Bio connector and securely positioned Transparent semi-permeable dressing applied to secure the cannula. No sign of erythema, swelling, pain and extravasation at cannula site	
G	Care of cannula explained. Patient understands action in event of dislodging	
H	Intravenous antibiotic administered as prescribed Sodium chloride 0.9% flush administered before, and after antibiotics Medicines administration record completed First dose given ☐ Time:…….. Signatures:1 ……. 2 ……..	
I	No allergic reaction / rash observed during 20 minutes following each administration of antibiotic – Patient to remain in supervised setting for 2 hours post administration. Base line observations recorded	
J	Discharge to Community Service discussed OR Outpatient support Patient / carer understands and consents to treatment plan. Information leaflet given: ☐ Patient carer has contact numbers: ☐	
K	Patient understands that oral antibiotics (if prescribed) must not yet be taken ☐ Advice re storage of medications reinforced ☐	
L	Patient advised about mobility indoors as instructed by a doctor ☐	

Indicators	**Variance/reasons**	**Action**	**Signature**

Patient Name .....Date of birth ..... NHS number: ……

At Hospital ☐ **At Home** ☐

Antibiotic Treatment Day 2 Date Time
*2 Registered Nurses are required for administration of intravenous antibiotic (NMC 2010)

	Care Standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signatures or record V for variance**
A	Daily monitoring sheet completed (appendices C & D) Primary Indicators are stable / improving	
B	Patient has no allergic reaction / rash resulting from previous antibiotic doses	
C	Check no increase in bowel frequency	
D	Community Division only-Community Service explained, Patient has service contact numbers	
E	Patient understands treatment plan	
F	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
G	Skin integrity recorded	
H	Care of cannula explained. Patient understands action in event of dislodging. Cannula patent and intact, no signs of extravasation. **VIP score:……** Dressing clean and intact Cannula care given as per clinical guidance	
I	The needle free device port decontaminated with 2% chlorhexidine in 70% alcohol wipes before accessing. Intravenous antibiotic administered as prescribed using aseptic non touch technique. Flush administered before and after antibiotics Medicines administration record completed.	1. 2.
J	Patient is taking all other medication as instructed.	
K	Advise re storage of medications reinforced.	
L	Mobility encouraged	
M	No allergic reaction / rash observed during 20 minutes following administration of antibiotics.	

Indicators	**Variance/reasons**	**Action**	**Signature**

Patient Name .....Date of birth ..... NHS number: ……

At Hospital ☐ **At Home** ☐

Antibiotic Treatment Day 3 Date Time
*2 Registered Nurses are required for administration of intravenous antibiotic (NMC 2010)

	Care Standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signatures or record V for variance**
A	Daily monitoring sheet completed Primary Indicators are stable / improving / have improved significantly. Review for oral antibiotics required*- YES ☐ NO ☐ ***Advanced Practitioner/GP** *If **YES** patient to commence prescribed oral antibiotics and this pathway to move to Day 6 IF No continue on IV therapy as below and ensure appropriate review takes place by either GP / Advanced Practitioner	
B	Patient has no allergic reaction / rash resulting from previous antibiotic doses	
C	Check no increase in bowel frequency	
D	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
E	Skin integrity recorded	
G	Care of cannula explained. Patient understands action in event of dislodging. Cannula patent and intact, no signs of extravasation. **VIP score:……..**	
H	The needle free device port decontaminated with 2% chlorhexidine in 70% alcohol wipes before accessing. Intravenous antibiotic administered as prescribed. Flush administered before and after antibiotics Drug administration chart completed. **Cannula to be removed** YES ☐ NO ☐	1. 2.
J	Patient is taking all other medication as instructed.	
K	Patient is taking all other medication as instructed. Patient advised on how to take oral antibiotics if prescribed (Commencing on day 6).	
L	Advise re storage of medications reinforced.	
M	Mobility encouraged	
N	No allergic reaction / rash observed during 20 minutes following administration of antibiotics.	

Indicators	**Variance/reasons**	**Action**	**Signature**

Patient Name .....Date of birth ..... NHS number: …….

At Hospital ☐

IV Antibiotic Treatment Day 4 Date Time
*2 Registered Nurses are required for administration of intravenous antibiotic (NMC 2010)

	Care Standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signature or record V for variance**
A	Daily monitoring sheet completed Primary Indicators are stable / improving / have improved significantly.	
B	Patient has no allergic reaction / rash resulting from previous antibiotic doses	
C	Check no increase in bowel frequency	
D	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
E	Skin integrity recorded	
F	Cannula re sited Skin disinfection -Before insertion of Cannula - 2% Chlorhexidine in 70% Alcohol and allowed to dry for 30 seconds Cannula is inserted using aseptic non touch technique and new Bio connector attached Cannula type: Site : Cannula is patent and securely positioned Transparent semi-permeable dressing applied to secure the cannula. No sign of erythema, swelling, pain and extravasation at cannula site Patient understands action in event of dislodging. **VIP score:……..**	
G	The needle free device port decontaminated with 2% chlorhexidine in 70% alcohol wipes before accessing Intravenous antibiotic administered as prescribed using aseptic non touch technique. Flush administered before and after antibiotics Drug administration chart completed.	1. 2.
H	Patient is taking all other medicines as instructed.	
I	Advise re storage of medications reinforced.	
J	Mobility encouraged	
K	No allergic reaction / rash observed during 20 minutes following administration of antibiotics.	

Indicators	**Variance/reasons**	**Action**	**Signature**

Patient Name .....Date of birth ..... NHS number: …….

At Hospital ☐

Antibiotic Treatment Day 5 Date Time
*2 Registered Nurses are required for administration of intravenous antibiotic (NMC 2010)

	Care Standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signature or record V for variance**
A	Daily monitoring sheet completed Primary Indicators are stable / improving	
B	Primary indicators have improved significantly.	
C	Patient has no allergic reaction / rash resulting from previous antibiotic doses	
D	Check no increase in bowel frequency	
E	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
F	Skin integrity recorded	
G	Cannula patent and intact, no signs of extravasation**. VIP score:……..** Dressing clean and intact Cannula care given as per clinical guidance.	
H	The needle free device port decontaminated with 2% chlorhexidine in 70% alcohol wipes before accessing on every occasion. Intravenous antibiotic administered as prescribed using aseptic non touch technique. Flush administered before and after antibiotics Drug administration chart completed.	1. 2.
I	Patient has received 5 full days of IV antibiotics. Review for oral antibiotic therapy	
J	Cannula removed.	
K	Patient is taking all other medication as instructed. Patient advised on how to take oral antibiotics (Commencing on day 6).	
L	Advice re storage of medications reinforced.	
M	Mobility and gradual return to normal activities explained.	
N	No allergic reaction / rash observed during 20 minutes following administration of antibiotics.	

Indicators	**Variance/reasons**	**Action**	**Signature**

Patient Name .....Date of birth ..... NHS number: …….

At Hospital ☐ **At Home** ☐

Antibiotic Treatment Day 6 Date Time

	Care Standard *if care varies from the pathway the reasons for variance and subsequent action must be recorded on the pathway.	**Signature or record V for variance**
A	Daily monitoring sheet completed Primary Indicators are stable / improved. Patient has no allergic reaction / rash resulting from previous antibiotic dose.	
B	Check no increase in bowel frequency	
C	Patient understands how to take oral antibiotics and the importance of completing the course.	
D	Patient has Integrated Community Nursing Service contact numbers and understands need to call if condition deteriorates.	
E	Previous cannula site checked	
F	Patient understands risk of allergic / anaphylactic reaction and how to seek help	
G	Patient understands about prevention of recurrence.	
H	Patient has a clinic appointment Yes / No (booked by hospital)	
	Continuation notes	**Signature**

Indicators	**Variance/reasons**	**Action**	**Signature**

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Appendix A

Patient Information Sheet

1. What is Cellulitis?

You have been diagnosed with a condition called cellulitis. Cellulitis is a bacterial infection of the deep layer of skin and the layer of fat and soft tissues that lie underneath the skin. The infection can make your skin red, swollen, hot and painful. Cellulitis can make you feel generally unwell, causing symptoms such as fever, nausea, shivering and chills. These symptoms may occur before or after your skin symptoms start to develop.

2. How do I get cellulitis?

Several different types of bacteria live on the surface of the skin. Usually, bacteria does not cause any harm to the body, but if it passes deeper into the skin, it can cause infection. Bacteria often enter the body through a damaged, or broken, area of skin, such as a cut, graze, or bite. Also, if you have a skin condition, such as eczema, your risk of bacteria entering your skin is increased. Once bacteria are inside the skin, they start to produce substances that break down the natural barriers that normally prevent bacteria from spreading into the deeper tissue. This enables infection and inflammation to spread.

3. Treatment of Cellulitis

Cellulitis is a common condition, and most cases can be effectively treated using antibiotics. However, in more serious cases, hospital admission may be required. You may notice that your skin initially becomes redder when you first start receiving the antibiotics, but this is normally only a temporary reaction. The redness should start to fade within 48 hours.

4. Community and Outpatient Management of Cellulitis with Intravenous Antibiotics

Instead of admission to hospital, you have been assessed as suitable to receive intravenous antibiotics as an outpatient or being visited at home by a community nurse. Outpatient care involves attending the Medical Assessment Unit daily at a specified time for assessment by a doctor or a nurse, and to receive intravenous antibiotic treatment. If the cellulitis improves after two days, the intravenous antibiotics will be stopped and you will be put onto oral antibiotics. If there is a bit of improvement and you are well, the intravenous antibiotics will be continued for two more days. Some patients will be able to receive their care at home from the integrated community nursing team – where this possible we will discuss this option with you.

5. Cannula Care

A small plastic tube (cannula) will remain in your arm when you go home so that intravenous antibiotics can be administered daily. This will be secured by a dressing and a bandage before you leave hospital. It is important that you observe for any redness or swelling surrounding the needle because this maybe a sign of infection. If the needle comes out, don't worry. Remove the cannula

and dressing completely and dispose of them in a bag in your normal household waste bin. It is important that you elevate your arm, put the dressing provided to you over the insertion site and apply pressure. This should stop any bleeding. We will put another cannula in at your next visit.

6. **Self Care**

There are some things that you can do at home in order to help ease your symptoms and speed your recovery. You should drink plenty of water to help prevent you becoming dehydrated. You should keep your leg elevated above hip level because this should make you feel more comfortable, and it will also help to reduce the swelling. Although rest and elevation are essential, you must also mobilise your ankle joint and walk to the toilet.

7. **Change in your condition**

If there are any changes in your condition or you experience any of the following symptoms,

- Increased redness and/or swelling
- You start to feel feverish or more unwell
- Increased pain
- Any confusion
- Your blood sugars become unstable,

For Community nursing patients being visited at home–

The name and telephone number of who to contact is given below.

Integrated Community Team: ----------

Telephone Numbers (day time):----------

Out of Hours Telephone Number: ----------

Visual Infusion Phlebitis (VIP) Score

RECORD OF INTRAVENOUS CANNULA

Visual Infusion Phlebitis (VIP) Score:- to be recorded on daily care pathway sheet

IV site appears healthy No Pain	**0**	No signs of phlebitis. OBSERVE CANNULA
One of the following is present - Slight pain near IV site - Slight redness near IV site	**1**	Possible first signs of phlebitis OBSERVE CANNULA
Two of the following are evident -Pain at site of IV -Erythema -Swelling	**2**	Early stage of phlebitis
All of the following signs are evident: -Pain along path of Cannula -Erythema -Induration	**3**	Medium stage of phlebitis **-Resite Cannula** -Consider treatment
All of the following signs are evident: -Pain along path of Cannula -Erythema -Induration -Palpable venous cord -Pus	**4**	Advanced stage of phlebitis or start of thrombophlebitis; **-Resite Cannula** -Initiate treatment -Complete IR1
All of the following are evident & extensive; -All of the above plus -Pyrexia -Tissue Damage	**5**	Advanced stage of thrombophlebitis: -Initiate treatment -**Resite Cannula** -Complete IR1

INSPECTION CHECKLIST

If any of the following are evident – ensure action documented within care pathway.

- Lack of Patency
- Leakage
- Sign of infection
- Dressing Checked
- Dressing Changed

APPENDIX C

Primary indicators recording sheet for effective management of patients with Cellulitis on intravenous antibiotic therapy

Primary indicators

1. PAIN Pain free	Severe
0 1 2 3 4	5 6 7 8 9 10
2. TEMPERATURE	
LESS THAN 37 °C	GREATER THAN 37 °C
3. PULSE	
60 80	100 120
4. INFLAMMATION/ DEMARCATION – Mark extent of erythema with indelible pen on first contact	
Reducing inflammation Static	Static Increasing

Secondary Indicators

5. BLISTERING	
Reducing inflammation Static	Static Increasing
6. OEDEMA- Measurement of Limb circumference on first contact = cms	
Reducing inflammation Static	Static Increasing
7. EXUDATE	
Decreasing Static	Static Increasing
8. LEVEL OF MOBILITY	
Improved Unchanged	Unchanged Deteriorating

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APPENDIX D

Primary indicator record sheet- Daily Monitoring for evaluation of IV antibiotic therapy

Patient Name .....Date of birth ..... NHS number: ……

Consultant/Named Lead:……..

Indicators	**Day 1 Admission day**	**Day 2**	**Day 3**	**Day 4**	**Day 5**	**Day 6**	**Day 7**	**Day 8**	**Day 9**	**Day 10**
	Date	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
1 PAIN										
2 TEMPERATURE										
3 PULSE										
4 INFLAMMATION/ DEMARCATION										
5 BLISTERING										
6 OEDEMA (cms)										
7 EXUDATE										
8 LEVEL OF MOBILITY										
Name/Role /Signature										

If 2 or more of the primary indicators enter into the red zone liaise with GP / Ambulatory Care and record variance on care pathway

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APPENDIX E

Intravenous Medicines Authorisation Record — Form IV1

Patient's Name:	Date of Birth:	NHS Number:
Address:		Date of Referral:
GP:		Known Medicine Allergies:
Date and Time of First Dose (if applicable):		Finish Date:

Drug	Dose	Frequency / Time of day	Route	Diluent	Further Diluent	Duration / Rate	Prescriber's Signature, Name & Designation
Teicoplanin		Once daily	IV	Use diluent provided	-	Slow IV bolus over 3-5 minutes	

Administration Instructions:

Flush	Dose	Frequency
0.9% Sodium Chloride (Posiflush)	5ml	Before and after Teicoplanin bolus

Appendix F

OUTPATIENT ANTIBIOTIC THERAPY AUDIT FORM

(Complete for every OPAT patient)

(ALL audit forms to be returned via fax 01254 736081 to the Microbiology Secretaries, Department of Clinical Laboratory Medicine, Royal Blackburn Hospital)

	An addressograph label may be affixed to this section
Patient name:	
RXR number / NHS number:	
Address:	
GP details:	

Community Team details:	

Indication for OPAT:	
Drug(s), dose(s) and frequency prescribed:	

Peripheral access device used: (size / colour)		
Number of times cannula replaced:		
Reason for replacement of cannula: (please tick)	> than 72 hours in situ	
	Pain at IV site	
	Erythema	
	Swelling	
	Pain along path of cannula	
	Pyrexia	
	Tissue damage	
Side effects of antibiotic treatment: (please tick)	Diarrhoea	
	Nausea	
	Phlebitis	
	Rash	
	Anaphylaxis	
	Other (please document)	
Course length of IV antibiotics:		
Total course length of all antibiotics: (IV and oral)		
Treatment successful: (please tick)	Yes	
	No	

If treatment failure please give details of failure and admission back to hospital:

APPENDIX G
Contact telephone numbers for Community Nursing Teams

Locality	Base	Telephone number
Rossendale	Bacup Primary Care Centre	01706 253358
Rossendale	Dearden House, Haslingden	01706 260746
Hyndburn	Clayton Clinic	01254 232061
Hyndburn	Accrington Victoria	01254 358034
Burnley	Kiddow Lane	01282 805679
Burnley	St Peters	01282 805939
Pendle	Yarnspinners	01282 657762
Pendle	Colne Health Centre	01282 731037
Ribble Valley	Clitheroe Health Centre	01200 413521
Weekend and out of hours for East Lancashire Area		01282 805958

Locality	Base	Telephone number
Blackburn with Darwen	Single Point of Access	01254 283631