

## Appendix to Cambridgeshire Community Services NHS Trust (CCS NHS Trust) Intravenous Therapy Policy 2.0

Version 1 Final Draft (18)

### Luton Adult Services - Admission Avoidance Clinical Pathways for Primary Care

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## 1.0 INTRODUCTION

Recent evidence and guidance recognises that patients can fare better if treated in their usual place of residence, even if the required treatment involves the administration of intravenous medicines.

The purpose of this appendix is to:

- Describe the role of CCS NHS Trust Staff within the multi-organisational pathways to provide safe, consistent pathways that support the provision of Intravenous (IV) therapy to patients outside of the acute setting requiring treatment for uncomplicated cellulitis, uncomplicated respiratory tract infections such as exacerbation of chronic obstructive pulmonary disease (COPD), urinary tract infection (UTI) or exacerbation of chronic heart failure.
- Provide evidence-based guidance to support healthcare staff to provide a safe and effective service and support service developments within the Trust.
- Provide pathways that offer an alternative to hospital admission and support early discharge.
- Provide a better experience for patients and carers, aim to ensure people receive the right, care, at the right time, by the right team and in the right place.
- Support people when their condition becomes more advanced and enable them to have a choice to remain at home.
- Describe how these pathways are designed to support primary care admission avoidance for those patients who are otherwise medically fit, and can be treated in the community as an alternative to hospital admission, while remaining under the care of their GP.
- Describe the pathway for patients who may have an acute or more complex health concern, but can be managed safely in community setting, provided the expertise of a hospital consultant is available to them.  
N.B Honorary contracts with the Trust are in place for named Luton and Dunstable Hospital consultants.
- Describe the pathway for patients who may require IV therapy, who require more intensive monitoring and specialist outreach medical management, for whom management by GP care alone is not appropriate, and who require consultant involvement.
- Describe how and when patient reviews should be undertaken by the professionals involved.
- The guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

### 1.1 The IV team

Members of the IV team will vary from patient to patient, and may consist of the following:

- CCS NHS Trust “One Service” including the Rapid Response (RR) team, Specialist Nurses

- L&DNHS Trust Consultants – Enhanced models of care (Honorary contracts in place)
- General Practitioners
- Consultant microbiologist, Luton & Dunstable Hospital
- Designated community pharmacies

Contact details are held by the Rapid Response Team

## **2.0 GENERAL PRINCIPLES**

- The Trust Intravenous Therapy Policy applies throughout, including the “Criteria for IV Therapy”.
- Administration of IV medicines should be performed in accordance with the Trust Standard Operating Procedure for Preparing and Administering Intravenous Medicines, MMSOP029.
- In all circumstances requiring consultant involvement, the Standard Operating Procedure for IV Therapy Initiated by Hospital Consultant, Administered by Rapid Response (5.1 in this document) should be followed.
- Choice of Antibiotic: The pathways include recommendations based on current guidelines – prescribers should always refer to the most up to date Antimicrobial guidelines seeking advice from the local hospital microbiologist as required.
- Microbiology advice can be sought by any professional within the IV team including the Rapid Response or Specialist Nurse dependent on the clinical situation and clinical discussion/ treatment plan.
- Following Referral the Rapid Response Team will undertake holistic assessment and care planning. The team will commence the prescribed treatment and ongoing monitoring as per local protocols according to the Referral Treatment Plan (5.5).
- IV antibiotics should be reviewed regularly and stepped down to oral treatment as soon as appropriate.
- When clinically indicated IV therapy in the community can be considered as part of personalised care and support planning / admission avoidance care planning ,

### **2.1 Special circumstances**

Any other patients requiring IV Therapy may be considered eligible and accepted onto a pathway by CCS NHS Trust after discussion with and review by the consultant or GP together with the Senior RR Nurse on duty.

### **2.2 Treatment location**

IV therapy can be administered in the patient’s usual place of residence (including residential and nursing homes) or in an identified Step-up bed in an identified nursing or residential home.

### **2.3 Clinical responsibility and Review**

- The patient will remain the clinical responsibility of the prescribing medical clinician. This may be the GP or consultant, following discussion, and must be documented in the patient's records.

- Relevant results will be available on ICE and monitoring support and guidance can be sought from the consultant, GP, microbiologist as needed.
- The Visiting Nurse / Professional must raise any concerns; seek advice regarding patients' response to treatment with the consultant or GP as appropriate.
- Patient reviews should be organised on initiation of treatment and as needed throughout the course of treatment. These clinical conversations can be conducted face to face or remotely depending on the clinical situation and patients' clinical needs. This can include seeking telephone advice from the patients GP or joint home visits between the consultants with honorary contracts and the CCS Nurse involved in monitoring the patient.
- IV Antibiotic therapy must be reviewed after 48hrs in conjunction with the medical prescriber – with a decision to continue or step down to oral treatment. This can be conducted remotely or face to face depending on clinical need.
- Patients will be reviewed in accordance with the relevant pathway, with the support of specialist teams as appropriate

#### **2.4 Prescribing**

- Prescriptions will be completed by the prescribing consultant, Rapid Response nurse (within their scope of practice and competence) or GP responsible for the patient's care and treatment plan.
- Medicines can be dispensed at the local designated pharmacy; four pharmacies in Luton hold an agreed stock list for IV therapy. The list of routine stock and locations are listed in the Trust Medicines Management SOP029, Preparing and Administering Intravenous Medicines (Rapid Response Team's locally completed version).
- The Rapid Response Team will liaise with the local designated pharmacy/ prescriber and patient to arrange the supply of medicines
- Any item not held as routine stock will need adequate notice to be provided to the community pharmacy.

#### **2.5 How to refer a patient**

Patients can be referred using the existing Rapid Response Referral Route –

- Contact the Rapid Response single point of contact :

03334053000 – 8am to 6pm to discuss the referral agree the Treatment plan and confirm Rapid Response Team capacity.

#### **3.0 MONITORING & AUDIT**

- Monitoring must be conducted in accordance with the Intravenous Therapy Policy.
- In addition to this, managers must monitor and review systems to ensure compliance with these pathways.
- Where monitoring identifies deficiencies, there must be evidence that recommendations and action plans have been developed and changes implemented.

#### **3.1 Review of Pathways**

- Review of this Appendix at the end of the testing phase will be undertaken by the Frailty Project Team / Programme Manager.
- Ongoing responsibility for review of the pathways will be confirmed by the Frailty Project Team / Programme Manager. Following conclusion of the testing phase.

## 4.0 CLINICAL PATHWAYS

### 4.1 COPD

#### 4.1a Factors to consider when deciding where to treat the Adult person with exacerbation of COPD

Factor	Treat at home	Treat in hospital
Able to cope at home *	Yes	No
Breathlessness	Mild	Severe
General condition	Good	Poor/deteriorating
Level of activity	Good	Poor/confined to bed
Cyanosis	No	Yes
Worsening peripheral oedema	No	Yes
Level of consciousness	Normal	Impaired
Already receiving long-term oxygen therapy	No	Yes
Social circumstances *	Good	Living alone/not coping
Acute confusion	No	Yes
Rapid rate of onset	No	Yes
Significant comorbidity (particularly cardiac disease and insulin-dependent diabetes)	No	Yes
SaO <sub>2</sub> <90%	No	Yes
Changes on chest radiograph **	No	Present
Arterial pH level **	≥7.35	<7.35
Arterial PaO <sub>2</sub> **	≥7 kPa	<7 kPa
<p><i>* Can consider access to Step up Bed pathway via Rapid Response Team as alternative to hospital admission for patients requiring additional social support and not able to manage at home.</i></p>		
<p><i>** this indicator may not be relevant in community setting unless patient has been assessed in Acute setting e.g. A&amp;E /ARAS</i></p>		

NICE (2018a). *Chronic obstructive pulmonary disease in over 16s: Diagnosis and management* Available From: <https://www.nice.org.uk/guidance/ng115>

## 4.1b COPD PATHWAY

**Adult over 18 presents with suspected: infective exacerbation of COPD**

### History and examination support diagnosis

A sustained acute-onset worsening of the person's symptoms from their usual stable state, which goes beyond their normal day-to-day variations. Commonly reported symptoms are worsening breathlessness, cough, and increased sputum production and change in sputum colour. The change in these symptoms often necessitates a change in medication.

### Ensure the following:

- Inhaler regime and technique correct
- Consider adding mucolytic, especially if chronic productive cough with sputum
- Ensure benefit-review of ongoing need
- Nutritional assessment
- Smoking cessation
- Flu and pneumococcal advice check vaccinations up to date
- Consider referral to the community respiratory nurse for review
- Consider referral to pulmonary rehab
- Provide information leaflet on COPD exacerbations

**Haemodynamically Unstable / Red flags**

**Assess and check signs and symptoms using local NEWS 2 / SEPSIS TOOL and consider RED FLAG symptoms that may indicate same day referral to hospital e.g.**

- Profound shortness of breath
- Inability to complete sentence
- Peripheral or central cyanosis
- Drowsy
- Confusion
- Rapid onset of symptoms

**Admission to hospital**  
 Mon - Fri 8.00 – 18.30  
 Contact GP Liaison Service  
 01582 297234

Or

**Consider referral to the Hospital Acute Respiratory Assessment Service (ARAS)**  
 via 07535977268  
 Available 8am to 4pm  
 Monday to Friday

**Haemodynamically stable / No red flags**

Start first line antibiotic therapy and steroids utilising Local Antimicrobial Guidelines  
[https://www.gpref.bedfordshire.nhs.uk/refer-als/bedfordshire-and-luton-joint-prescribing-committee-\(jpc\)/jpc-guidelines/antimicrobial-guidelines.aspx](https://www.gpref.bedfordshire.nhs.uk/refer-als/bedfordshire-and-luton-joint-prescribing-committee-(jpc)/jpc-guidelines/antimicrobial-guidelines.aspx)

Optimise treatment by increasing short-acting Bronchodilator for the duration of the exacerbation e.g. 2-8 puffs up to 4 hourly.

**No improvement 2-3 days or sooner if deterioration**

**Red flags**

**No red flags**

Investigations: FBC, U&E, CRP, CXR, Sputum culture  
 Consider if early referral to Rapid Response indicated.

Start 2<sup>nd</sup> line oral antibiotic therapy; or 3<sup>rd</sup> line oral antibiotic therapy;  
 In accordance with local Antimicrobial Guidelines

[https://www.gpref.bedfordshire.nhs.uk/referrals/bedfordshire-and-luton-joint-prescribing-committee-\(jpc\)/jpc-guidelines/antimicrobial-](https://www.gpref.bedfordshire.nhs.uk/referrals/bedfordshire-and-luton-joint-prescribing-committee-(jpc)/jpc-guidelines/antimicrobial-)

**MONITOR DAILY OR AS PER CARE PLAN**

**No improvement in 2-3 days or sooner if deterioration**

**No red flags**

Review by consultant and respiratory nurse to consider continuing treatment in community with reference to clinical factors (4.1a)

Consider referral to Rapid Response Team for monitoring and /or IV Therapy provision

Refer to Rapid Response Team (SOP 5.1)

If IV Therapy commenced consider changing back to orals at 48 hours

Agree plan for ongoing monitoring

First choice intravenous antibiotic choice if unable to take oral or severely unwell (consider local Microbiologist review & Guidance)

- Amoxicillin 500 mg three times a day (see BNF for dosage in severe infections)
- Co-amoxiclav 1.2 g three times a day
- Clarithromycin 500 mg twice a day
- Co-trimoxazole 960 mg twice a day (see BNF for dosage in severe infections)
- Piperacillin with tazobactam 4.5 g three times a day (see BNF for dosage in severe infections)

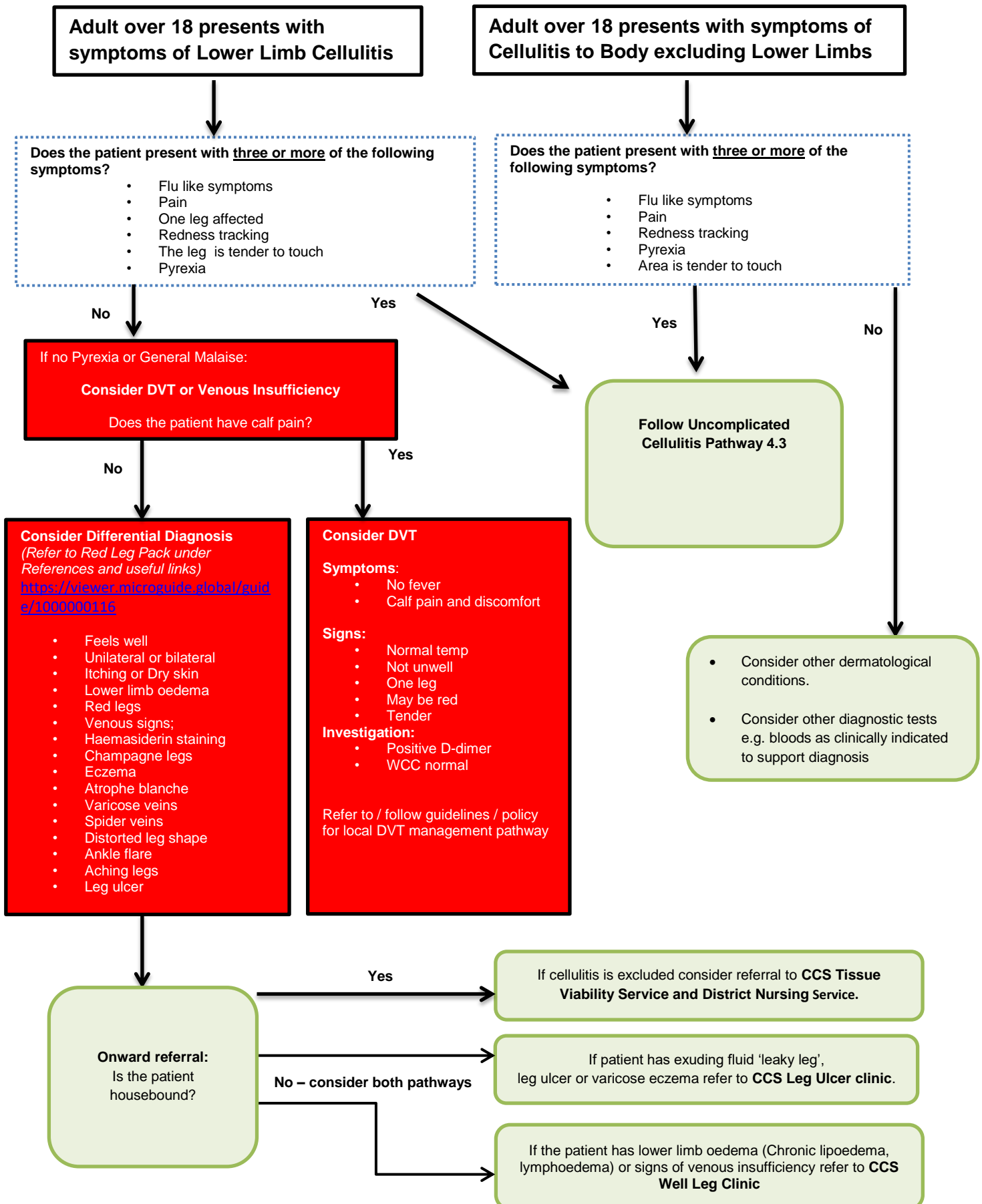
Second choice intravenous antibiotics:

- Consult local microbiologist (guided by sensitivities)

[www.nice.org.uk/guidance/NG114](http://www.nice.org.uk/guidance/NG114)



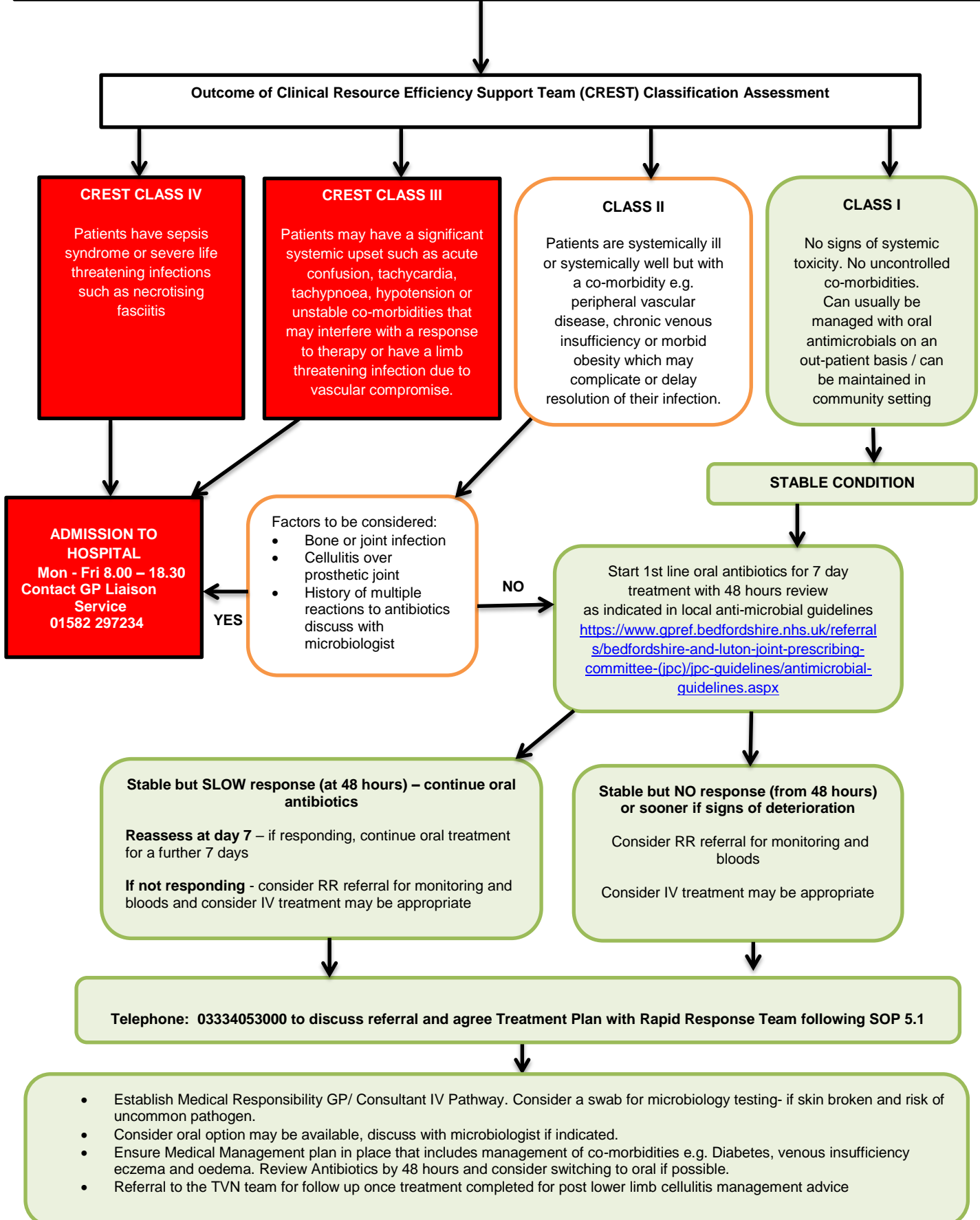
## 4.2 Suspected Cellulitis Pathway





### 4.3 Uncomplicated Cellulitis Pathway

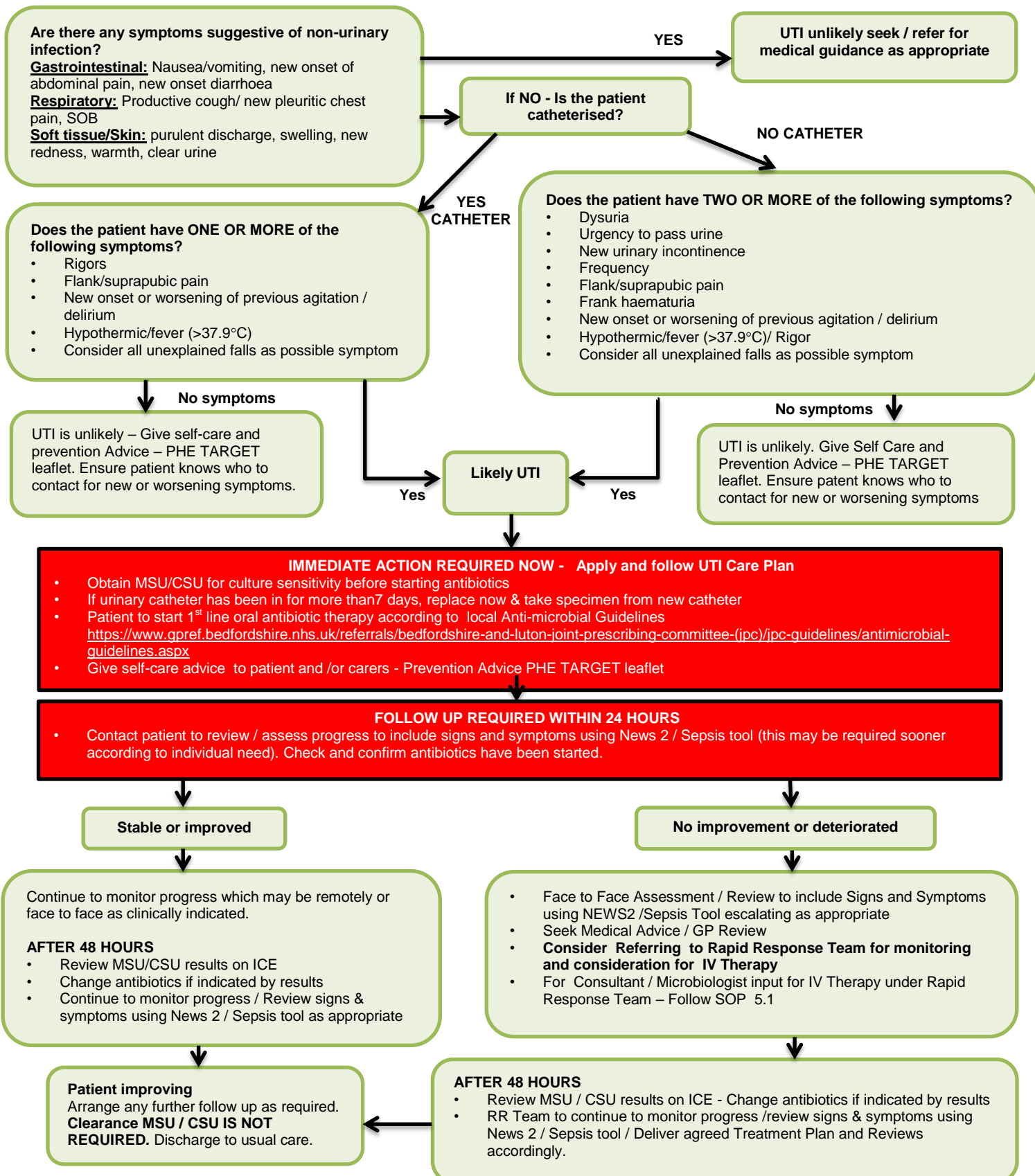
**Adult over 18 Presents with suspected Uncomplicated Cellulitis – Exclusions:** patients with diabetic foot infection or facial/ orbital/ periorbital /scrotal /suspected necrotising fasciitis, immunocompromised or suspected sepsis who should be referred for specialist assessment



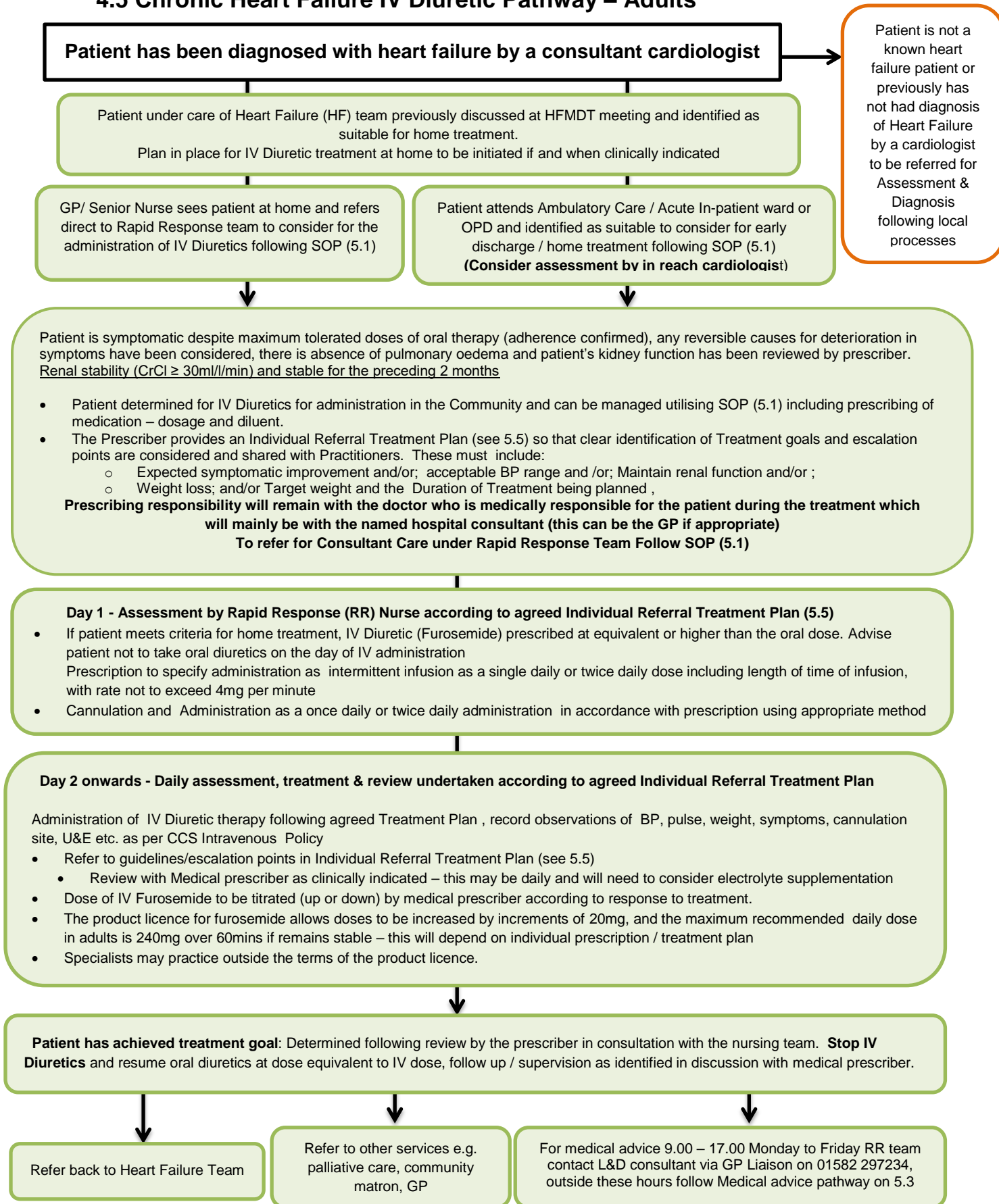
## 4.4 Urinary Tract infection Pathway for Community teams

**DO NOT DIAGNOSE UTI USING URINE DIPSTICKS** - Urine Dipsticks become more unreliable with increasing age over 65 years. Up to half of older adults, and most with urinary catheter, will have bacteria present in the bladder/urine without an infection. This is “asymptomatic bacteriuria” is not harmful, and although it causes a positive urine dipstick, antibiotics are not beneficial and may cause harm (N.B. when indicated urine dipstick can support differential diagnosis).

### THINK SEPSIS – CHECK FOR SIGNS & SYMPTOMS USING LOCAL NEWS 2 /SEPSIS TOOL



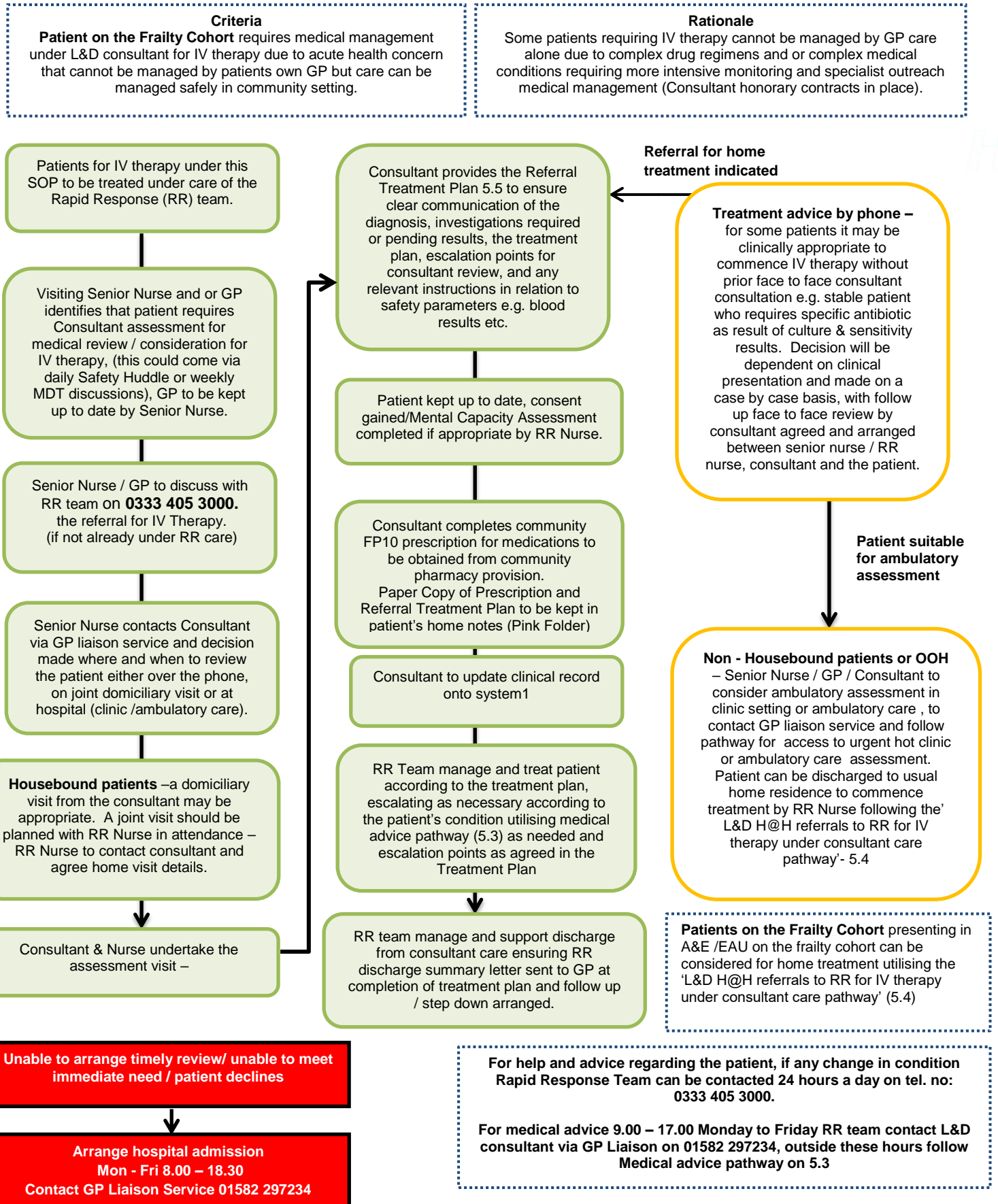
## 4.5 Chronic Heart Failure IV Diuretic Pathway – Adults



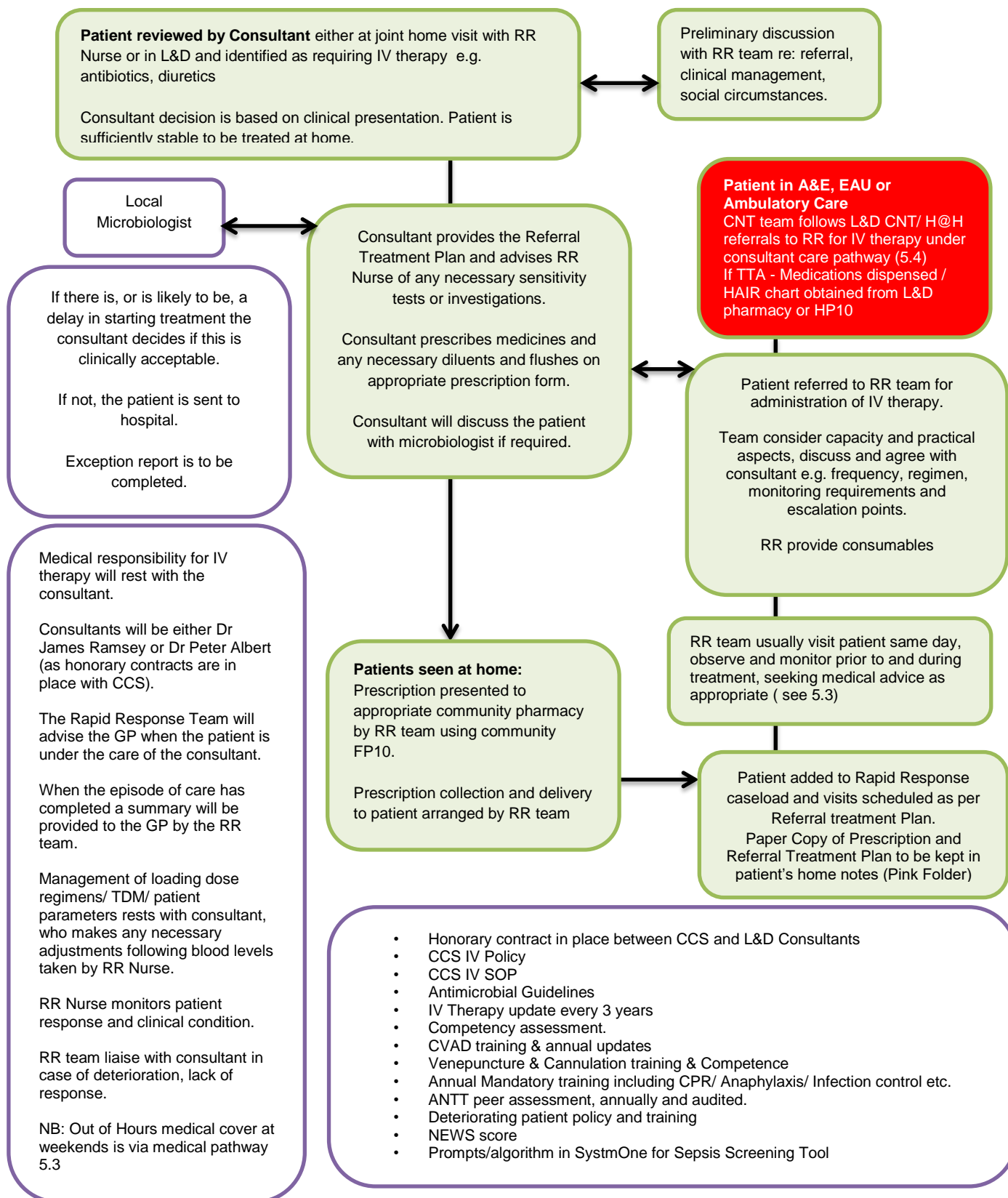
Advice from Medical Consultant (Honorary contract with CCS / or cardiologist and/or GP should be sought if there are any concerns or as clinically indicated throughout episode of care.

## 5.0 IV Therapy Initiated by Hospital Consultant Administered by Rapid Response

### 5.1 Standard Operating Procedure



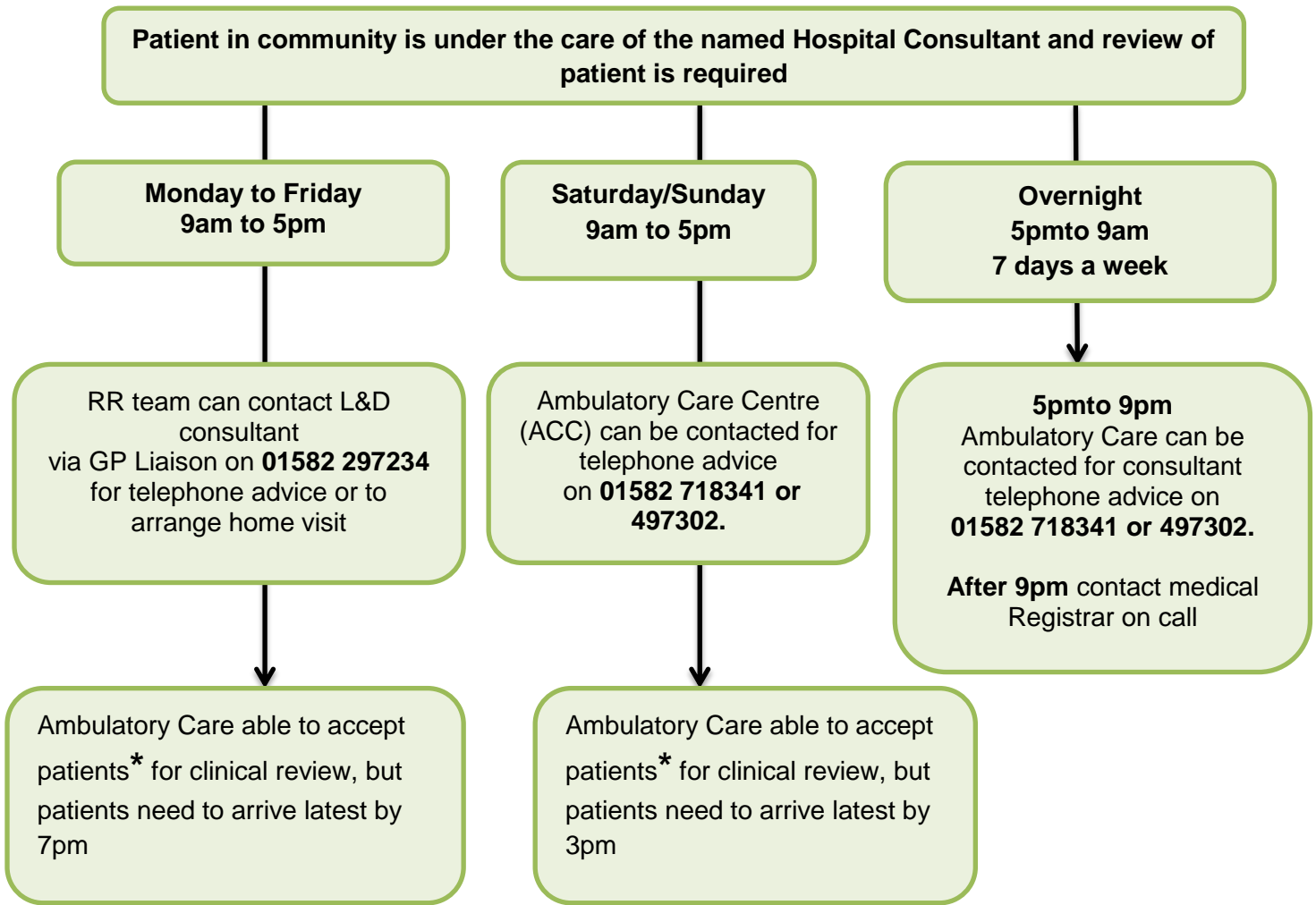
## 5.2 Governance - IV Therapy initiated by Hospital Consultant under Rapid Response



**Key:**  
 Stages in the process Governance



### 5.3 Pathway for Medical Advice for Patients under Consultant Care

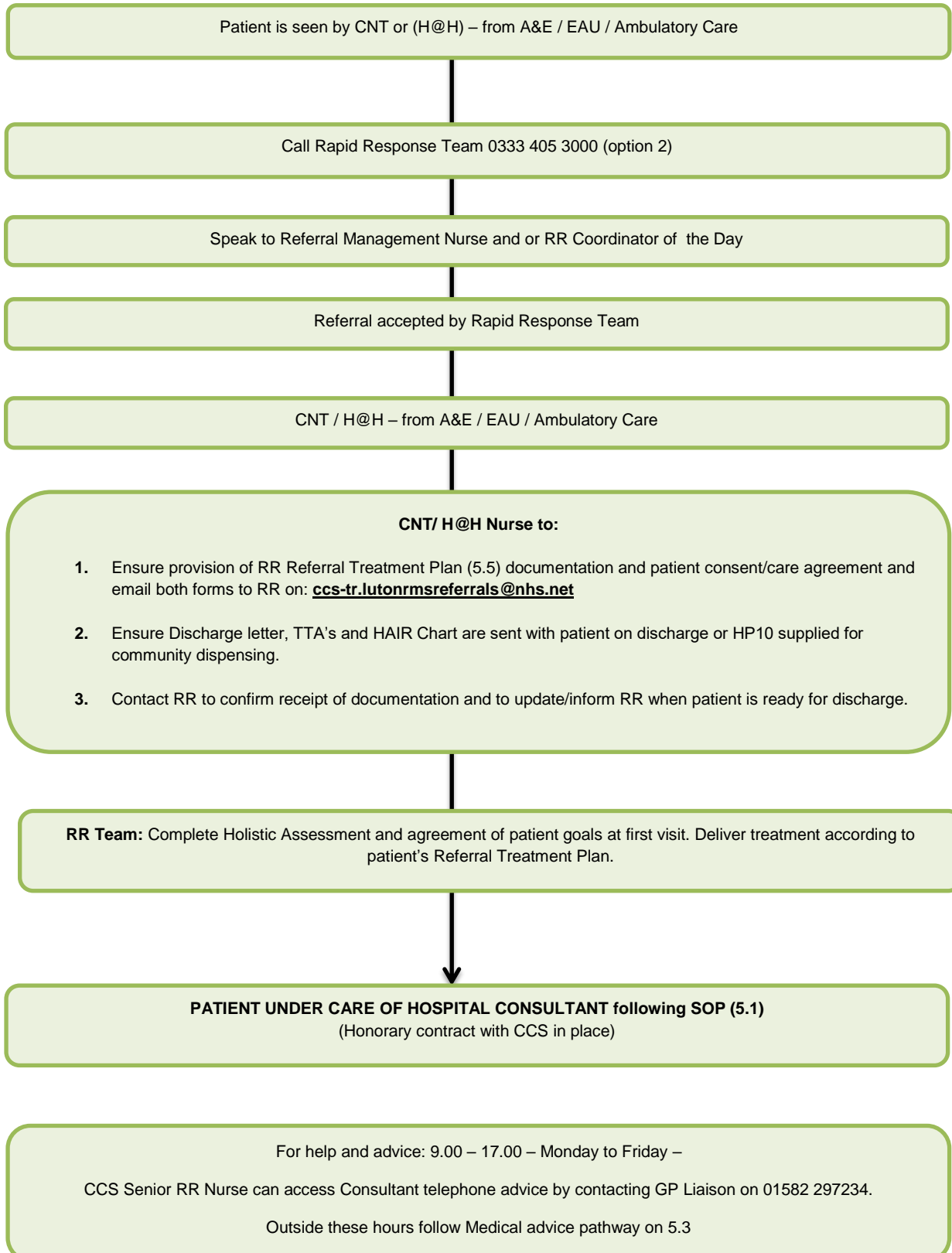


#### Communication of Information:

- Rapid Response Team to ensure that a copy of Prescriptions and Referral Treatment Plan (5.5) kept in patient's home notes (Pink Folder) is sent to the Ambulatory Care Centre with the Patient.
- Reason for review to be provided to Ambulatory care staff by RR team by telephone or by completion of Transfer of Care Form
- Clinical Navigation Team (on site in L&D ) are able to access SystmOne information if required
- Ambulatory Care staff can contact Rapid Response Team for any queries 24 hours a day on **03334053000**

\* Also note i) that wheelchair patients will need a carer with them  
 ii) Ambulatory care centre **cannot** accommodate bed bound patients.

## 5.4 Pathway for L&D Clinical Navigation Team (CNT) or Hospital at Home (H@H) Referrals to Rapid Response for IV Therapy under Consultant Care.





### 5.5 Rapid Response Referral Treatment Plan for IV Therapy

<b>Patient's Name:</b> <b>NHS Number</b> <b>Date of Birth</b> <b>Address:</b> <b>Telephone N<sup>o</sup></b>	<b>GP Name:</b> <b>Address:</b>  <b>Telephone N<sup>o</sup></b>
<b>MEDICAL DETAILS</b>	
Diagnosis ( <b>include patient infectious status</b> ):	
Reason for Referral:	
Current Medication:	
Relevant Past Medical History:	
Planned Initiation of Treatment in Community : (date of hospital discharge if applicable)	
Details of Current Hospital Admission (if applicable):	
<b>TREATMENT PLAN including Goals, Follow up, Monitoring &amp; Escalation arrangements</b>	
<u>Intravenous therapy to be administered including dose, frequency, method and duration</u>	
<b><i>(Please include &amp; send prescription signed by prescribing doctor)</i></b>	
Microbiology advice if sought:	
For hospital discharges- date and time IV therapy commenced:	
Date and time IV therapy to be completed:	
<u>Treatment Goals e.g. Symptom improvement, vital signs, blood results, weight etc.</u>	
<u>Escalation Parameters related to Goals e.g. symptom deterioration, vital signs, bloods, weight etc.</u>	
<b>INVESTIGATIONS PENDING /PLANNED MONITORING</b>	
Is blood monitoring required? <b>Yes / No</b> <u>If yes, state requirements and frequency</u>	
Any other monitoring required?	
Date treatment to be reviewed / follow-up arrangements and by whom	
<b>IV ACCESS ( for hospital discharges)</b>	
Type	Date of Insertion
Any complications with line / poor venous access	
<b>ANAPHYLAXIS RISK ASSESSMENT</b>	
Known Allergies or Sensitivities	
If the patient has had a previous allergic reaction, what happened?	
Has the patient had the prescribed medicine before (orally or intravenously)? <b>Yes / No</b>	
<b>PRESCRIBER'S DETAILS</b> Name of Prescriber / medical team responsible for the patient, to be contacted for advice:	
Prescriber Name (PRINT):..... Prescriber signature .....	
Date.....	Telephone No: .....

## 6.0 REFERENCES

### **General**

Bedfordshire and Luton Joint Prescribing Committee antimicrobial guidelines:  
[https://www.gpref.bedfordshire.nhs.uk/referrals/bedfordshire-and-luton-joint-prescribing-committee-\(jpc\)/jpc-guidelines/antimicrobial-guidelines.aspx](https://www.gpref.bedfordshire.nhs.uk/referrals/bedfordshire-and-luton-joint-prescribing-committee-(jpc)/jpc-guidelines/antimicrobial-guidelines.aspx)

BNF (2019) *British National Formulary*. 78th edn. London: British Medical Association and Royal Pharmaceutical Society

### **COPD Pathway**

NICE (2018a). *Chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing*. Available from: [www.nice.org.uk/guidance/NG114](http://www.nice.org.uk/guidance/NG114).

British Thoracic Society (2015) *Annotated BTS Guideline for the management of CAP in adults 2015*. British Thoracic Society. [www.brit-thoracic.org.uk/guidelines-and-quality-standards/community-acquired-pneumonia-in-adults-guideline/annotated-bts-guideline-for-the-management-of-cap-in-adults-2015/](http://www.brit-thoracic.org.uk/guidelines-and-quality-standards/community-acquired-pneumonia-in-adults-guideline/annotated-bts-guideline-for-the-management-of-cap-in-adults-2015/)

### **Cellulitis Pathway**

NICE (2019) *CKS - Cellulitis Acute*. National Institute for Health and Care Excellence. [www.nice.org.uk](http://www.nice.org.uk) [Free Full-text]

NICE (2019a) *Cellulitis and Erysipelas*. National Institute for Health and Care Excellence. [www.nice.org.uk/guidance/NG141](http://www.nice.org.uk/guidance/NG141)

BMJ (2018) *Cellulitis*. *BMJ Best Practice*. [bestpractice.bmj.com/info/](http://bestpractice.bmj.com/info/)

CREST (2005) *Guidelines on the management of cellulitis in adults*. *Clinical Resource Efficiency Support Team*. [www.gain-ni.org](http://www.gain-ni.org) [Free Full-text]

### **Urinary Tract Infection Pathway**

NICE (2018b) *Urinary tract infection (recurrent): antimicrobial prescribing*. National Institute for Health and Care Excellence. [Free Full-text]

NICE (2018c) *Urinary tract infection (catheter-associated): antimicrobial prescribing*. National Institute for Health and Care Excellence. [www.nice.org.uk](http://www.nice.org.uk) [Free Full-text]

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PHE (2018) *UK Standards for microbiology investigations: investigation of urine*. Public Health England. [www.gov.uk](http://www.gov.uk) [Free Full-text]

PHE (2017) *Diagnosis of urinary tract infections (UTIs): quick reference guide for primary care*. Public Health England. [www.gov.uk](http://www.gov.uk) [Free Full-text]

### **Chronic Heart Failure Pathway**

NICE (NICE) (2019) *Chronic heart failure in adults: diagnosis and management*. National Institute for Health and Care Excellence. [www.nice.org.uk](http://www.nice.org.uk) [Free Full-text]

Scottish Intercollegiate Guidelines Network (2016) *Management of chronic heart failure*. SIGN. [sign.ac.uk/pdf/SIGN147.pdf](http://sign.ac.uk/pdf/SIGN147.pdf)

National Clinical Guideline Centre for Acute and Chronic Conditions (2010) *Chronic heart failure. National clinical guideline for diagnosis and management in primary and secondary care (full NICE guideline)*. National Clinical Guidelines Centre.. [www.nice.org.uk](http://www.nice.org.uk) [Free Full-text]