1. Introduction and Who Guideline applies to

1.1 This Standard Operating Procedure (SOP) sets out the overarching framework for processes to be used for undertaking Systemic Anti-Cancer Treatment (SACT) as part of the ambulatory care pathway and monitoring the health and wellbeing of those patients including the indications for admission into the hospital should it be required. The SOP also includes the process for monitoring the efficacy of the CADD Solis pump which is an important secondary process that supports the ambulatory care service model.

1.2 The scope of this guideline is the treatment of patients with haematology malignancy traditionally given SACT as an in-patient regimen who have been deemed suitable for transfer to the ambulatory setting. Those patients will have met the selection criteria for more independent care.

To date, the regimens which have been described with an ambulatory pathway are as follows:

a) High dose Melphalan
b) High dose AraC
c) DA 3+8
d) LEAM
e) Mini LEAM (chemocare and pump setting needs changing, incorrect at the moment)
f) AML 19 trial (DA3+8 and high dose AraC)
g) Blinatumomab

It is intended that other regimens will be worked up in order to widen the scope of the service model.

2. Recommendations, Standards and Procedural Statements

2.1 Patient referral to day care for ambulatory chemotherapy and supportive care

2.1.1 Referral mechanisms

Suitable patients will be identified either through the Leukaemia MDT, the Lymphoma MDT or the Transplant Planning meeting. The relevant disease specific CNS has a role in informing other members of the nursing team of patients selected at the MDT and the transplant nurses have a similar role in communicating decisions from the Transplant Planning meeting if the Ambulatory Care CNS is not present.

2.2 Patient screening

2.2.1 Patient selection criteria:

a) ECOG performance status 0-1

b) 24 hour carer support including availability to drive patient to hospital in the event of an emergency (In the event of no carer being available but the patient is still considered suitable and wishes to follow the ambulatory model, a risk assessment will be undertaken and considered by the Multi Disciplinary Team)

c) Patient must not be on IV antimicrobial therapy

d) Patient must be fluent in written and spoken English

e) Patient must be living within 30 minutes' drive of the hospital (unless alternative circumstances such as further distance are deemed applicable by the consultant haematologist and MDT- risk assessment in place).

f) Satisfactory completion of the Patient education tutorial (see appendix 1)

g) Ability to monitor own temperature and wellbeing

h) Motivated to participate in the pathway

2.2.2 The following will be performed within 1 week prior to commencement of SACT regime:

a) FBC, U&E, Extended LFT, Bone, CRP, LDH (cycle 1 of chemotherapy) and any other tests deemed appropriate for specific regimens.

b) Insertion of appropriate venous access or checking of current Hickman/PICC.

c) Consent for chemotherapy

2.2.3 Patients who meet the eligibility criteria and who have successfully completed the patient education tutorial will be treated as day case attendees on the scheduled day to commence SACT and thereafter for the course of treatment.

2.3 Organisational factors

2.3.1 Nursing staff will give the patient appointment times according to their regime during the treatment phase and until admission is required. This will depend on the specific regimen being administered (see individual regimen standard operating procedure).

2.3.2 At the present time, the location of the day care treatment will be the Hambleton Suite on every day of the week except Saturday, when the staff on the Osborne Day Care unit will be appropriately briefed to provide care.

2.4 Ambulatory Care Team

2.4.1 The patient's Haematology Consultant will maintain responsibility for the patients' care during the ambulatory phase of therapy. Care of the patient will be co-ordinated by the Ambulatory Care Specialist Nurses.

2.4.2 This co-ordination includes:

a) Ensuring that the patient is provided with the correct patient diary for the regime, which has been completed with the correct dates for attendance and rest days at home.
b) Ensuring that the patient has undergone the Patient education (see Appendix 1 for what the education covers – this includes an understanding of the CADD pump as appropriate).
c) Ensuring that members of staff working in Hambleton Suite, BMTU and Ward 41 are aware that there is /are patient/s receiving treatment on an ambulatory pathway (write on noticeboards as well as verbal communication) in order that the patient receives appropriate emergency advice or out of hours care if necessary.
d) Ensure that an up to date list of ambulatory care patients is kept in the emergency phone information box.
e) Liaising with the Haematology Ambulatory Pharmacist or cancer pharmacist with regards to which patients will receive ambulatory care treatment.

2.5 Weekend care

2.5.1 Clinical care will be delivered by Osborne Day Care staff on a Saturday and Hambleton Suite staff on a Sunday. This will be led by the patient's consultant and supported by the Ambulatory Care Specialist Nurse.

2.5.2 On Saturdays staff from Osborne Day Care will deliver the care and the on call registrar will be accessible if required and aware of the patient.

2.5.3 Patients only need attend at weekends when their regimen dictates or if they have been explicitly asked to.

2.6 Patient Assessment

2.6.1 The UKONS Triage LOG Sheet will be used for clinical assessment on attendance at the hospital for treatment or review. This forms part of the Ambulatory Care Pathway Assessment booklet and includes:

a) Temperature
b) Nausea & vomiting
c) Mucositis
d) Diarrhoea/constipation

e) Fatigue
f) Dyspnoea
g) Anorexia/ change in appetite
h) Rash
i) Chest pain
j) Neurosensory
k) Bleeding/bruising

2.6.2 Unless clinically indicated patients should have the following blood tests taken:

a) On each visit: Full blood count, Urea and Electrolytes, Bone, CRP
b) Twice a week: Liver function Tests
c) Twice a week if neutropenic: Galactomannan and Beta D glucan
d) Any additional test which is requested by the medical team.

2.7 Criteria for admission

2.7.1 Absolute criteria for admission:

a) Mucositis of sufficient severity to justify escalation of analgesia
b) Hypotension unresponsive to fluid challenge
c) Haemodynamic instability
d) Marked tachycardia
e) Hypoxia less than 93% on room air or raised respiratory rate
f) Coagulopathy with associated bleeding
g) Fever >37.5C or rigors.
h) Uncontrolled nausea and/or vomiting
i) Patient failure to thrive
j) Rising CRP
k) Clinicians request

2.7.2 Ambulatory patients in whom sepsis/infection is suspected or in whom a temperature of >37.5 C is recorded must be reviewed by the Haematology team within 1 hour on Hambleton Suite or OAU

2.7.3 Exceptions to this can be made if it is deemed clinically appropriate for the patient to remain at home. **This must be a triumvirate decision** agreed between the Consultant, Senior Nurse and the patient

2.8 CADD pump

2.8.1 A trouble shooting guide and a Patient information guide for the CADD pump are both available to ensure the patient both understands the pump and knows what to do should an alarm sound. The troubleshooting guide is also of use to staff answering the emergency phone.

2.8.2 The pumps are to be regularly and routinely serviced by UHL Medical Physics department and it is the responsibility of the Ambulatory Care CNS and Pharmacist to ensure this takes place.

2.8.3 The ambulatory care pharmacist will complete the appropriate form for the regime that needs to be uploaded on the pump, the form will be sent to the Smith's Medical regional agent. They will then liaise with medical physics to input or adapt any protocols on the pump library. Once the protocol is installed, the pump can be programmed for use through selection of the correct protocol by either the Ambulatory Care CNS or Hambleton Suite staff at the point of commencement of the patient's treatment.

2.8.4 Daily living advice for the patient in managing the pump is included in the patient diary. A patient specific bag should be provided at the start of the treatment.

2.8.5 Patient is to have a purple 'chemotherapy infusing' sticker applied to the lumen of their line to which the CADD pump is attached.

2.9 Documentation

The patient's nursing notes during the period of chemotherapy on Hambleton Suite are to have a purple front sheet to provide a quick visual reminder that the patient is being treated on an ambulatory pathway. At the end of the day attendance or follow up phone call, notes will be kept in the Bone Marrow Unit Notes Trolley.

2.10 Trial regimes

Where appropriate, trial regimens which can be delivered in an ambulatory manner will be included. Liaison between the consultant haematologist, the Clinical Trials specialist nurse, the cancer pharmacist and the Ambulatory Care Specialist Nurses will take place in order to confirm arrangements.

Procedure / Process for treatment on a Haematological ambulatory care pathway		
	Process	**Comments/ Observations**
1	Patient is identified for suitability to be treated on an ambulatory pathway at the Leukaemia MDT, Lymphoma MDT or Transplant Planning meeting.	Feedback to the wider team about decisions by Leukaemia CNS, Lymphoma CNS, Transplant nurses or Ambulatory Care CNS
2	The pathway proposal will be discussed with the patient by their consultant and checked against the selection criteria	
3	The approximate date of treatment will be established and the Ambulatory CNS will begin the process of ensuring relevant documentation is available and all stakeholders are informed (including the Pharmacy Aseptic lab)	
4	The treatment pathway will be carried out as written in the protocol and Patient diary. The wellbeing of the patient will be monitored and maintained using the recommendation and standards in Section 3 above	
5	Necessary arrangements for weekend attendance for treatment will be confirmed	
6	Ambulatory Care CNS is to keep a record of bed days saved and undertake patient feedback surveys in order to build the evidence of cost savings and improved patient outcome	

3. Education and Training

3.1 All nursing staff working in connection with patients being treated on an ambulatory care pathway will require assessment and training to care for these patients. This will also include use of the CADD Solis pump. The assessment will be competency based.

3.2 All chemotherapy trained staff on Ward 41, Ward 40, Ward 39, BMTU, Hambleton Suite, Osborne Day Care and Osborne Assessment Unit. Education will be also be given to non-chemotherapy trained staff so they have an awareness of the pump.

4. Monitoring and Audit Criteria

Key Performance Indicator	Method of Assessment	Frequency	Lead

5. Legal Liability Guideline Statement

The Trust will generally assume vicarious liability for the acts of its staff, including those on honorary contract. However, it is incumbent on staff to ensure that they:

- Have undergone any suitable training identified as necessary under the terms of this policy or otherwise.
- Have been fully authorised by their line manager and their CMG to undertake the activity.
- Fully comply with the terms of any relevant Trust policies and/or procedures at all times.
- Only depart from any relevant Trust guidelines providing always that such departure is confined to the specific needs of individual circumstances. In healthcare delivery such departure shall only be undertaken where, in the judgement of the responsible clinician it is fully appropriate and justifiable - such decision to be fully recorded in the patient's notes.

6. Key Words

Ambulatory

Care

Pathway

Day care

CADD Solis pump

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title) Anika Sirel, Natasha Woolgar	**Executive Lead**
Details of Changes made during review:	

This line signifies the end of the document

Appendix 1- Patient Education

University Hospitals of Leicester NHS
NHS Trust
Caring at its best

Name:
Date of Birth:
Hospital No:
NHS No:
Consultant:

Education programme for patient and carer involved in Ambulatory care pathway for Haematological conditions

In order for you to be accepted onto the Ambulatory care pathway you and your carer will need to attend an educational session. At the end of the educational session both you and your carer will need to confirm your attendance so a record can be made in your notes.

Topics to be discussed at the educational session:

1. Patient diary
2. Alert card for Haematology patients
3. Mouth care with an emphasis on Mucositis
4. Skin-tunnelled catheter care
5. How to take a temperature and record the results
6. Signs to watch out for:
    - Persistent nausea and vomiting
    - Poor fluid and food intake
    - Diarrhoea and constipation
    - Shivering
    - Shortness of breath
    - Swollen arm, ankles and legs
8. Problems associated with low platelets and haemoglobin
9. Taking medication and recording
10. What to do if you (the patient) are feeling unwell or need advice
11. Neutropenic diet
12. How to avoid infection
13. Personal care and managing the pump
14. Sex
15. Regime Specific Side Effects
16. Emergency Phone Information

Please sign below to say you have attended this educational session and that you are willing to take part in the ambulatory care programme.

Patient's name: ……..

Patient signature: …… Date: ……..

Carer's name: ……

Carer's signature: ……..Date: ……..

Healthcare Professional's name: ……

Healthcare Professional's signature: ……Date: ……