East Midlands
Strategic Clinical Networks

Specialist Registrar

Chemotherapy Training Workbook

Version 1

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Introduction

This workbook has been introduced to ensure structured training around chemotherapy for oncology/ haematology registrars. It is designed to ensure that standards of prescribing are maintained throughout training and to help you to develop your skills and competence with regards to chemotherapy prescribing,

The responsibility for co-ordinating your training lies with you, and it is up to you to contact the relevant people to organise assessments.

A document detailing oncology/haematology registrar chemotherapy prescriptions is updated and circulated regularly and must be adhered to.

Trainees should familiarise themselves with the following trust policies and ensure that any practice is within NUH guidelines.

http://nuhnet/nuh_documents/Documents/Cytotoxic%20Chemotherapy%20For%20Any%20Indication,%20And%20Other%20Drugs%20Requiring%20Specialist%20Handling%20Policy.doc

http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Oncology%20and%20Radiotherapy/1803b.pdf

http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Oncology%20and%20Radiotherapy/1871.pdf

http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Oncology%20and%20Radiotherapy/1841.pdf

http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Oncology%20and%20Radiotherapy/2140.pdf

http://nuhnet/nuh_documents/Guidelines/Cancer%20and%20Associated%20Specialties/Oncology%20and%20Radiotherapy/1490.pdf

Chemocare training and passwords will be provided.

There are 5 levels of training to complete. This workbook takes you through them all and gives the necessary information for you to complete each level.

Level of training	When to complete	During this stage the trainee can
1	Within first 3 months of speciality training	Confirm and authorise subsequent cycles of chemotherapy with a countersignature on all prescriptions from a consultant or level 4 or above SpR (this can take the form of an annotation on Chemocare)
2	Between months 3 and 6 of speciality training	Confirm and authorise subsequent cycles of chemotherapy within local guidelines – **Not to prescribe first cycles**
3	Between Months 6 and 18 of training – likely to coincide with part 1 FRCR or 1st MSc module	Can initiate therapy for a patient in agreement with a consultant as per local guidelines
4	Is tumour site specific and will be completed with each 6 month rotation of training following the initial 18 months	Can initiate therapy for a patient in agreement with a consultant as per local guidelines with each tumour site
5	Must demonstrate by the award of CCT	Able to introduce a new therapy into the department under the supervision of a consultant. This can be a new drug or a new regimen of existing drugs

All completed forms should be kept together as a portfolio throughout training.

Level 1

To be completed within 1st three months of specialist training.

At level 1 a trainee is able to undertake a review of a patient receiving systemic chemotherapy and can authorise the next cycle to proceed. During this period trainees will require the countersignature of a consultant (or level 4 SpR) on all prescriptions.

Learning objectives:

1. Ability to authorise treatment to proceed following assessment of the patient and relevant laboratory investigations.
2. Ability to review a prescription for systemic therapy and identify errors and omissions.
3. Demonstrate knowledge and understanding of the methods for calculating the dose of medication, including those based on body surface area, pharmacokinetic and pharmacodynamics principles.
4. Ability to define the causation of nausea and vomiting and the ability to identify the likely cause of emesis in a patient receiving systemic therapy.
5. Ability to determine the antiemetic requirements of patients receiving systemic therapy.
6. Ability to define the principles for dose delay and reduction in systemic therapies, based on haematological toxicity.

Assessments to be completed:

1. CbD with Specialist Oncology/ haematology Pharmacist
2. mCEX with Chemotherapy lead nurse
3. mCEX with Specialist Oncology/ haematology Pharmacist -Chemocare test cases.
4. 5 x DOST with Consultant

Level 1 assessments completed

Signed_____ Date_____

Assessments:

Case based discussion

To be held with a specialist pharmacist.

Must cover:

- Dose calculations
- Nausea and vomiting
- Dose delays
- Dose reductions

The trainee must identify an appropriate patient and organised the CbD with a Oncology/Haematology Pharmacist. Please complete a CbD record sheet.

Date complete:

Signed by pharmacist:

Mini CEX with Lead Chemotherapy Nurse

Trainee to contact, Lead Chemotherapy Nurse, to organise a mini CEX assessment of the Chemotherapy Pathway

Date complete:

Signed by Lead chemo nurse:

Mini CEX Chemocare Assessment

Trainee to contact with a Oncology/Haematology Pharmacist to arrange completion of a Chemocare simulation

Date complete:

Signed by pharmacist:

DOST

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

Level 2

To be completed between months 3 and 6 of specialist training.

Learning Objectives:

1. Ability to prescribe systemic therapies after assessment of patient and relevant lab investigations.
2. To define the likely adverse events of the agents in common use.
3. To define the scientific basis and parameters for dose modifications to systemic therapy in light of renal, liver and haematological dysfunction.
4. Ability to institute the appropriate dose modifications in the light of liver, renal and haematological function.
5. Ability to perform a thorough assessment of toxicity and to prescribe appropriate supportive medications (including growth factors, antibiotics and blood products).
6. Ability to obtain informed consent for treatment.
7. Ability to assess objective tumour response and to determine the appropriateness of continuing treatment, taking in to account response to treatment, performance status, co-morbidity and toxicities.
8. Ability to appropriately request assistance or advice when required.

Assessments to be completed:

1. CbD with Specialist pharmacist re: organ dysfunction
2. CbD with consultant re: adverse events
3. CbD with consultant re: appropriateness of continuing therapy
4. mCEX with consultant re: assessment of toxicity
5. mCEX with Specialist Oncology/ haematology pharmacist re: Chemocare test cases
6. 5 x DOST with consultant

Level 2 assessments completed

Signed_____ Date_____

Case based discussion

To be held with a specialist pharmacist.

Must cover:

- Chemotherapy dose reductions due to:
  - Hepatic dysfunction
  - Renal impairment

The trainee must identify an appropriate patient and organised the CbD with an oncology/haematology pharmacist. Please complete a CbD record sheet.

Date complete:

Signed by pharmacist:

Case based discussion

To be held with a consultant (preferably supervisor)

Must cover:

- Adverse events of anticancer medicines
- Management of those events

The trainee must identify an appropriate patient and organised the CbD the consultant. Please complete a CbD record sheet.

Date complete:

Signed by Consultant:

Case based Discussion

To be held with a consultant (preferably supervisor)

Must cover:

- Appropriateness of continuing treatment with respect to
  - Toxicity
  - Performance status deterioration/co-morbidity
  - Patient choice

The trainee must identify an appropriate patient and organised the CbD the consultant. Please complete a CbD record sheet.

Date complete:

Signed by Consultant:

Mini-CEX toxicity assessment

To be held with Consultant

Date complete:

Signed by Consultant:

Mini CEX Chemocare Assessment

Trainee to contact with an Oncology/Haematology Pharmacist to arrange completion of a Chemocare simulation

Date complete:

Signed by pharmacist:

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DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

Level 3

To be completed between months 6 and 18 of specialist training. Likely to coincide with part I FRCR for clinical oncology trainees, or the MSc module on chemotherapy. At this level you are able to initiate therapy for a patient (with consultant involvement) in accordance with local procedures.

Learning objectives:

1. To define the scientific mechanism of action of the systemic therapies used in the management of cancer patients.
2. Ability to initiate treatment having thoroughly assessed the patient and considering decisions made during MDT meetings.
3. Ability to modify the dosage of treatment based on pharmacokinetic and pharmacodynamic information relating to the patient.
4. Ability to appropriately request assistance or advice when required.

Assessments to be completed:

1. CbD with Specialist Pharmacist re: mechanisms of action of systemic therapies
2. 5 x DOST with consultant
3. CbD with Consultant re: assessment of patient when initiating therapy.

Level 3 assessments completed

Signed_____ Date_____

Case based discussion

To be held with a specialist pharmacist.

Must cover:

- Mechanisms of action of systemic therapies including:
  - Cytotoxics
  - Targeted agents

The trainee must identify an appropriate patient and organised the CbD with a Oncology/Haematology Pharmacist. Please complete a CbD record sheet.

Date complete:

Signed by pharmacist:

CbD patient assessment

With consultant

Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet

Date complete:

Signed by Consultant:

DOST

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

CbD patient assessment

With consultant

Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet

Date complete:

Signed by Consultant:

Level 4

It is expected that after the first 18 months of training, trainees will achieve level 4 competence in each rotation . At level 4 trainees should be able to initiate therapies within local guidelines (with consultant involvement), for a specific area of clinical practice. They should develop an understanding of the regulatory framework for clinical research and should be able to assess patients receiving treatment within clinical trials.

Learning Objectives:

1. Ability to initiate and authorise treatment having thoroughly assessed the patient.
2. Ability to critically evaluate and interpret published evidence relating to investigation into a new therapeutic agent.
3. Trainees at this level should be encouraged to attend trial initiation meetings and to become sub-investigators on clinical trials.
4. Ability to define the regulatory framework for clinical trials.
5. Ability to appropriately request assistance or advice when required.

Assessments to be completed:

1. 5 x DOST for each attachment
2. CbD with consultant re: assessment of patient for initiation of therapy, one to be completed in each attachment.
3. mCEX with Specialist pharmacist re: Chemocare test cases
4. CbD with consultant re: discussion of clinical paper
5. CbD with trials team leader re: regulatory framework for trials

Level 4 assessment completed

Signed_____ Date_____

DOST – Attachment 1

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 2

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 3

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 4

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 5

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 6

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 7

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

DOST – Attachment 8

You should be observed confirming and/or authorising chemotherapy by a consultant on at least 5 occasions. Please complete a DOST form for each occasion.

DOST 1

Date complete: Consultant signature

DOST 2

Date complete: Consultant signature

DOST 3

Date complete: Consultant signature

DOST 4

Date complete: Consultant signature

DOST 5

Date complete: Consultant signature

Case based discussion

To be held with consultant

Must cover:

- Discussion and critical review of a relevant clinical paper

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion

To be held with a member of the clinical trials team (nurse)

Must cover:

- Regulatory framework for clinical trials
- How this has been applied to a specific trial
- How you have adhered to GCP when caring for a patient within that trial

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Mini CEX Chemocare Assessment –

Trainee to contact with a Oncology/Haematology Pharmacist to arrange completion of a Chemocare simulation

Date complete:

Signed by pharmacist:

Case based discussion – attachment 1

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 2

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 3

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 4

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 5

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 6

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 7

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Case based discussion – attachment 8

To be held with consultant

Must cover: Must cover initial assessment of patient prior to initiating therapy, including extent of disease, PS, co-morbidities, organ dysfunction.

Please complete a CbD record sheet.

Date complete:

Consultant signature:

Attendance at trial initiation visit

Trial name:

Date attended:

Signature of consultant / research nurse:

Level 5

To complete this level the trainee will demonstrate level 4 competence in all clinical modules and is able to introduce a new treatment into the department following critical review of published evidence. Demonstration of this competence will be by the award of the CCT.

Learning objectives:

1. Ability to critically review the evidence for a new therapy, present the evidence at the chemotherapy strategy meeting and submit DTC application form.
2. Ability to identify training needs of all health professionals involved in the delivery of the new therapy.
3. Ability to customise treatment to an individual treatment, based on all investigations when clinical guidelines might not be applicable to the situation.

Assessments to be completed:

1. Successful submission of DTC application and implementation of a new therapy.
2. CbD with consultant re: customisation of treatment when guidelines may not apply.

Level 5 assessments completed:

Signed_____ Date_____

Successful submission of a Drug and Therapeutics Committee application and implementation of a new therapy

To be done with consultant supervision when the opportunity arises.

Date complete:

Consultant signature:

Case based discussion

To be held with consultant

Must cover:

- Customisation of treatment for an individual patient

Please complete a CbD record sheet.

Date complete:

Consultant signature: