

Introduction Pack for New Registrars in Clinical Oncology

Congratulations on achieving your training post in this exciting and rewarding specialty! This introduction pack aims to give you some ideas of what to expect of the job, as well as some tips that most of us wish we had had when we started. It has been written for trainees by trainees. It is not comprehensive, and the aim is not to overburden you with information!

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1 Introduction and Induction

1.1 Before you start

Make no bones about it, you think you know medicine when you become a registrar and then someone asks you a question about radiotherapy and all that confidence and surety vanishes. Whilst not quite starting again, Clinical Oncology adds a whole new layer of basic knowledge, new vocabulary, and a stunning array of papers to know, on top of your medical knowledge. It is daunting, and there is a lot to learn, but likewise it is “do-able” - we can all attest to that!

Whilst your structured teaching (in-house, courses or an MSc) will help you obtain a large chunk of the required knowledge, (which is covered by the syllabus for part 1) your fellow Registrars and your supervising Consultant(s) are a valuable source of information to be mined frequently. As well as asking questions of them left right and centre, we would recommend you or preferably your department, identify a senior registrar who can formally or informally provide you with some advice, guidance, information and help to answer your questions and uncertainties.

1.2 Induction

You should have a period of time when you start where you do not have formal commitments but will be introduced to the various aspects of your work. This should include as a bare minimum introduction and information on the in-patient wards, day case area, chemotherapy suite, radiotherapy (simulator/CT, mould room, planning, treatment machines), and admin office and meeting all the relevant staff therein.

Make sure you have the necessary access to the hospital systems. It is virtually impossible to do your job without this. Specifically you will need passwords and training on:

- Accessing computers including trust email
- PACS, or equivalent radiology system
- Patient database if you have one
- Pathology results +/- ordering tests
- Radiotherapy planning systems
- Chemotherapy prescribing system

Most departments will have protocols that cover assessment, management and follow-up protocols for each tumour site. It is well worth taking time to familiarise yourself with the guidance documents and asking questions to clarify any aspects that are unclear

2 The Working Week

Oncology is mainly based around out-patient work. It often comes as a surprise to some of our colleagues just how many clinics we do - typically you will have at least 4 or 5 clinics a week. In addition you will attend at least one and usually 2 or 3 MDTs depending on tumour sites you cover. Add in time for radiotherapy planning, looking after the in-patients/day cases and admin and it is a lot to take on board in a short space of time. It is daunting to begin with, and it gets easier as you go along!

2.1 Radiotherapy

You should receive local training on whom and when you can refer patients for radiotherapy. This will include IR (ME)R, and how it relates to radiotherapy referral, planning and treatment in your department. Rather like operating time for surgical trainees your planning sessions are precious and as far as possible you should prioritise these and structure ward and 3/10

administrative commitments accordingly. On reflection we all wish that we had spent more time on the following at an early point in our training:-

Radiotherapy planning

Learning from dosimetrists, and physicists

On "Set" seeing how radiotherapy is delivered.

In most departments passing the Part I exam or completing an in house radiotherapy induction programme are required before you can plan and prescribe a course of radiotherapy independently. However, whatever you're training level, timetabled planning sessions with your consultant are a real opportunity to learn the craft of our specialty, and you should get stuck in as much as you can. Where possible have a go at drawing on a volume before reviewing it with your consultant. Ask questions and make sure you understand the reasons behind any adjustments your consultant makes so you really benefit from their knowledge. Wherever possible look at the plans produced by physics and make sure you understand why your consultant accepts or requests changes to these.

2.2 Clinics

These can be structured in many ways; new patient clinic, chemotherapy clinic, radiotherapy, follow up (f/up) or a mixture of all of these in a single clinic. Clinics may happen at your base hospital or another hospital in your Cancer Network (peripheral clinic). You will need to document your consultation for all patients, and it can be helpful to have a treatment summary at the beginning of each annotation. Below is an idea of what to expect and what to do for each patient group.

2.2.1 New patients (20-60mins)

It is worthwhile discussing new patients with the consultant before you start seeing them, especially when you are new to a team. Most referrals come from MDTs, a few from other departments in hospital or possibly GP's. You need to see: referral letter, MDT discussion and outcome. The patient may be recommended for a clinical trial. You may need to liaise with the research nurse in advance to ensure familiarity with the trial and treatment arms and that you have signed the relevant paperwork such as trial logs. You will also need to ensure you have a valid GCP certificate (this is also an eportfolio requirement). It would also be advisable to familiarise yourself with RECIST which is a criteria for assessing objective response to treatment using imaging.

Copies of blood tests, histology and radiology reports

You need to:-

Take a full History

Perform the relevant Examination(s)

Consider the Investigations. (it may be useful to have a separate section for these when you annotate)

Check the patients understanding of their diagnosis

Check/ask how much the patient wishes to know about the diagnosis and treatment discuss the treatment preferably with the patient's carer/relative present, including:

- Aims of treatment radical or palliative
- Outline the treatment options and their pros and cons, including likely response rates.
- Discuss the recommended treatment options and reasons for this

- Explain the practicalities of treatment, including how the treatment is given, and discuss the likely side-effects and how these will be managed.
- Ensure that the patient has all of the written information about their disease and the proposed treatment that he/she requires and relevant contact details

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E.g. clinical nurse specialist, consultant's secretary, chemotherapy emergency contact numbers.

- Gain consent for treatment if appropriate
- Prescribe any drugs that are needed
- Arrange follow up/next appointment
- Fill in the necessary investigation and treatment booking forms. For patients who require radiotherapy this will include ensuring the radiographers know if there are any particular requirements such as marking/wiring on the skin during simulation or coordination with another component of treatment such as chemotherapy
- Finally annotate all of the above and ensure the appropriate letters are dictated!

Once you have completed your assessment your consultant will probably want you to summarise and describe your management plan prior to meeting the patient. This provides a valuable learning opportunity in addition to your structured teaching.

2.2.2 Follow-up patients (5 -30 minutes)

These usually fall into two categories. Either, they've had radical (attempt at cure) treatment, or have known incurable disease. It's important to understand what has been happening previously, and find results if they're not there – **before** you see the patient. In either group you may have to give the results of previous investigations and you may have to break bad news. In all patients you will

Check for symptoms/ signs of cancer relapse or progression. It is rare to find signs of cancer progressing in the absence of symptoms so as with general medicine the history is all important.

Check for symptoms / signs of treatment toxicity. This has to be teased out from any signs of disease progression, as well as "normal", non-malignant medical problem. Toxicity is graded by referring to the Common Terminology Criteria for Adverse events (CTC AE for short. See - https://ctep.cancer.gov/protocoldevelopment/electronic_applications/ctc.htm)

You need to remember that, regardless of stage of disease or intent of treatment, patients and relatives are worried and anxious about what the future holds for them

You may need to request routine bloods or periodic imaging. It is important that you follow-up the results of these and liaise appropriately with other members of the wider team involved in the patients care such as surgical colleagues, specialist nurses, dieticians etc.

If you think signs or symptoms may be due to the cancer progressing then before you investigate it, you also need to ask yourself:

What treatment options are there for this patient, if the disease is progressing?

Would I recommend the treatment now - weighing up symptoms of cancer against response rates and potential side effects of treatment?

Are they fit enough to receive any of the treatment options available?

Weighing all these factors up is a challenge and doing it well is an art-form! If unsure it is much better to ask.

2.2.3 Chemotherapy Patients (5-25mins)

You will need to understand performance status, grading symptoms/signs of toxicity, and how to calculate body surface area and creatinine clearance. 5/10

Before you start prescribing chemotherapy you should have had some formal teaching from a Consultant, and possibly a pharmacist, in your department that covers:

The chemotherapy process and system. How to arrange it, who can prescribe it, how it is prescribed (electronic vs. paper) when patients are reviewed, how many cycles are given etc. The British Columbia Cancer Agency cancer drug manual is an excellent aide-memoire which lists useful information such as mechanism of action, toxicities etc.

<http://www.bccancer.bc.ca/health-professionals/professional-resources/cancer-drug-manual/drug-index>

How you assess toxicity and what you do when there is some. – e.g. dose reductions, alternative anti-emetics, GCSF.

How to manage common/serious problems – nausea/vomiting, allergic reactions, extravasation

The Departments' arrangements for managing acute toxicity, especially neutropenic sepsis

How to assess for response.

Most departments now do an in-house induction course, which may include a test/assessment at the end to show you have been assessed and approved to see chemotherapy patients. Do not be surprised if there are rules regarding who can prescribe the first cycle of chemotherapy.

All patients having chemotherapy need regular review. For some protocols this will be through a combination of nurse and doctor led clinics. You may need to obtain the patient's written consent if he/she is attending for his/her first cycle of chemotherapy, but usually you are assessing toxicity from treatment and grading it where appropriate. You may need to adjust the chemotherapy dosing or the anti-emetics.

Patient information leaflets are a great source of information for patients and you. They can remind you of side effects that you may have forgotten to mention, and certainly when you begin are a useful resource for describing treatment toxicity.

In patients receiving palliative treatment, the idea is to improve the symptoms they have from their cancer (if there are any), whilst not giving them excessive toxicity from the treatment. Most, but not all, palliative chemotherapy gives only a modest gain in survival. This goes hand in hand with seeing a radiological response, and you will have to arrange repeat imaging as well as giving the results.

It is worthwhile checking with someone what alternative treatment there may be (if there is one) before breaking any bad news.

2.2.4 Radiotherapy patients (5-25mins)

Patients may attend for review weekly or just at the end of their radiotherapy treatment depending on the nature of their treatment. There are some aspects that are specific to radiotherapy that you will need to consider

Have they missed any treatment? You will need to check with your consultant if there a need to compensate for this because gaps can reduce the effectiveness of radiotherapy.

Are they having side effects? Are these expected? Severity?

In patients being treated radically we try and continue with the radiotherapy even if they are symptomatic and manage any symptoms with appropriate medication.

If you think a patients' symptoms are excessive and wonder about stopping radiotherapy **always** discuss with a senior colleague/ Consultant first.

Think nutrition, weight, and blood tests in those having radical treatment.

Are there any problems with radiotherapy field reproducibility – this is assessed by on treatment imaging.

2.3 MDT's

You should attend these unless there is an emergency. They will be at a fixed time and can be quite lengthy sometimes. They can occur early morning or lunchtime, so check whether you need to bring food/drink!

Here you can learn about the staging and relevant investigations for the particular cancer site(s).

They are a great opportunity to experience the mind-set that the whole cancer team has towards treating the specific disease site. You can learn a great deal, especially about how to manage “grey”, difficult, or rare cases and your experiences here invaluable in your preparation for your oncology exams.

You may have to present patients, and in time provide an opinion if your consultant is away. Also if you're not clear about something regarding management, this can be a good time to ask. If there is no opportunity to ask during the meeting, make sure that you ask your Consultant after the meeting.

If you want to arrange for a patient to be discussed at a MDT meeting, then the MDT co-ordinator or the consultant's secretary are the people to talk to.

2.4 In-patients

Although most of the week is spent looking after out-patients, you will have some in-patient responsibilities. Organisation of SpR ward cover varies between departments. Some departments timetable blocks of ward cover where one SpR supervises all oncology inpatients rather than ongoing responsibility for patients under your own consultant only.

When providing SpR cover for inpatients you should:

Attend Consultant ward rounds (if timetable allows)

Go round yourself at least once a week or more frequently where clinically indicated. If you are not available to do this yourself because you are at a clinic or away from the hospital, you will need to arrange for another registrar who is available to see the patient and ensure the rest of the team know whom to contact.

Be available for advice, reviews, and prescribing chemotherapy.

Ensure you have a copy of, and have sat down and read, policies for:

- Febrile Neutropenia
- Extravasation of chemotherapy
- Spinal cord compression

2.5 Administration

The consultant secretary is the “hub” for a large amount of work (signing letters, responding to queries). Cultivating a good working relationship with them will make your life much easier and enhance your enjoyment of your job. Ask them about:

Signing letters, bloods

Formatting of annotations, letters etc.

Putting people on MDTs for discussion

Co-ordinating annual leave, study leave or other time away.

Where they'll leave this work for you, and how often they would like you do it!

How to contact them and vice versa

When you organise investigations for a patient seen in clinic it is important you ensure you check the results and ensure they are appropriately acted on 7/10

2.6 On-calls

When you first start, these can be daunting! The first thing to work out is how you hand over patients. Do you have a formal hand-over from the day registrar/ ward team? At the very least you should check with the ward doctors and nurses to see if there are any problems before you go home.

It is worthwhile checking, and being quite clear on your roles and responsibilities: What are your admission criteria? Who should you definitely admit, and who can be managed locally or under another team?

The on-calls are from home usually – but when will you have to be in the hospital? For example will you have to be in if chemotherapy is being given out of hours or the radiotherapy machines are treating late? Ensure you have access to treatment protocols (e.g management of ifosfamide toxicity- this has been needed in the middle of the night!) and you have set up your remote access so you can retrieve imagine/patient records (if this technology is available).

Do the consultants want you to ring them individually if their patients' are ill, or the consultant on call?

How do you arrange treatment for spinal cord compression at weekends?

How do you arrange for urgent chemotherapy?

3 Education

3.1 The Royal College of Radiologists

The Royal College of Radiologists (RCR) sets the GMC approved curriculum that you are following. This defines the standards you will have to achieve to successfully complete training. You have to enrol with the College when you start as a registrar, You should visit the training section of the College's website (www.rcr.ac.uk) where you will find documents related to training, including the curriculum. Contact the Specialty Training Office at the College if you have any queries about training, education and examination issues. It is also important that you keep the College informed about any changes to your training, such as your number of sessions per week, significant absence from training for sickness or maternity leave, plans to undertake a period of training abroad or move training scheme. These may have an effect on your eligibility for the FRCR Examinations and the expected date for the completion of your specialty training. General training and CCT queries may be addressed to the Training Team on 020 – 7406 extension 5925 or 5929 or training@rcr.ac.uk. Examination queries should go to examinations@rcr.ac.uk or by telephoning the College on ** and entering "3" for examinations when prompted or extension 1161.

3.2 Oncology Registrars Forum (ORF)

This is the junior forum of the Royal College of Radiologists and is made up of all the regional trainee representatives (who sit at your regional training committee meetings) and meets twice a year at the RCR. Anything that is or might be of relevance to current or future trainees is discussed and our views inform the RCR. You should be kept up to date of relevant issues e.g. results of a survey, or new documents by your regional rep. and they will also ask your opinion on various issues.

Each spring the ORF organises the Annual Trainee Oncologists Meeting (ATOM) which is aimed at all years of trainees, this is a primarily an educational event but also combines practical tips and a good opportunity to network (socialise!) with trainees from other regions. There is also the European Society of Therapeutic Radiation Oncology (ESTRO) as well as the American version (ASTRO). If you join ESTRO (www.estro.be) you automatically get access to the journals of both organisations (see journals section), as well as access to the list of courses they offer.

3.3 Exams

In order to complete training you have to pass the FRCR exam in Clinical Oncology. More detailed information about the exam is on the RCR website. 8/10

The exam is split into 2 parts. There are 2 sittings of each exam per year.

Part 1 covers basic knowledge, and is assessed in 4 modules: Cancer Biology and Radiobiology; Clinical Pharmacology; Medical Statistics; Physics. You do not have to take all 4 modules at once.

You are only permitted 4 sittings in which to pass the part 1. After this point you cannot continue in Clinical Oncology! Previously this was restricted to consecutive sittings but this is no longer the case.

Part 2 can normally only be taken after completing 3 full years of training. It is a comprehensive exam and there is no-where to hide!!!! It is divided into 3 parts, but you do not have to pass all components in one sitting. The college does not set limits on the number of attempts you have at this.

First there is the written (Part A), in the single best answer format – 2 x 2.5 hour papers that are much like a massive MDT covering all subjects. Then about 6 weeks later there is the clinical, followed a few days later by the 40min oral. You can only progress to the clinical and oral (Part B) components if you successfully pass the SBA papers (Part A).

For both exams it is worthwhile thinking ahead and discussing with your fellow registrars, clinical supervisor and/or the college tutor (there is one in every department) about the best time to take them.

3.4 Training ePortfolio

You are required to use the College's ePortfolio system to record your progress through training. Information about the ePortfolio, including user guides, is available on the training section of the College website. An ePortfolio account will be created for you when you enrol. You may already have used the same ePortfolio system in Foundation Training and/or Core Medical Training, in which case the same username can be kept.

3.5 Workplace-based assessments

You have to complete workplace-based assessments throughout training. The methods in use for Clinical Oncology are: Case-Based Discussion, miniCEX, DORPS (assessment of radiotherapy planning), DOST (assessment of systemic therapy prescribing), Multi-Source Feedback, Teaching Observation and Audit Assessment. These should be recorded in the ePortfolio. Individually these will be used as formative assessments. When used together they will be used as a summative assessment to help to inform the annual review of competence progression (ARCP).

3.6 Training Committee

There will be a regional committee made up of the Training Programme Director, Regional Specialty Advisor, Chairman, and then the College tutors from the all the hospitals in the region, as well as a trainee rep, which meets regularly to discuss training issues/matters. Find out who your trainee rep is so you can give them feedback.

3.7 Journals

There are a number of journals where the majority of oncology publications can be found. *The Journal of Clinical Oncology* – www.jco.org – American, and largely concerned with chemotherapy.

The Lancet Oncology and *The Lancet* – www.thelancet.com

The New England Journal of Medicine – www.nejm.org

Clinical Oncology – www.rcr.ac.uk – The RCR's journal 9/10

Radiotherapy and Oncology – access at www.estro.be – The “Green” journal and published by ESTRO

The International Journal of Radiation Biology and Physics (IJORBP) – access at www.estro.be – The “Red” journal and published by ASTRO.

There are many others, e.g. *Cancer*, *Seminars in Oncology* etc.

3.8 Books

There are an absolute plethora of books to be found on Oncology, radiotherapy and chemotherapy. Other registrars and your consultant will usually be happy to advise on useful books, and may lend you some to look over before deciding on which ones to buy.

3.9 Courses

Part 1 and ongoing interest courses are run throughout the year covering topics relevant to the basic sciences in Oncology, (radiobiology, physics, statistics, planning etc.) and Part 1. These are usually advertised in *Clinical Oncology* or on the RCR website. But ESTRO also have a comprehensive list, available to see on their website, covering both basic sciences through to advanced radiotherapy techniques.

For part 2 there are currently 4 courses available at different points of the year. You will need to book far in advance to ensure a place on them.

Canterbury course - Spring

Cardiff Course – Autumn

Sheffield course – Summer

Edinburgh course – bi-annual – Spring

4 Things we wished we had known when we started.....

Performance status really is very important!!!!

Radical means attempt at cure

Neo-adjuvant is before definitive treatment to try and improve the chance of local tumour control/cure

Adjuvant is given after definitive treatment (radiotherapy or surgery) with the intention of reducing the risk of incurable recurrence

As single modality treatment chemotherapy reliably cures only lymphoma and germ cell tumours.

X-rays cannot be bent

Time spent in the mould room really does pay off as you approach your exams

Get to know your specialist pharmacist, chemotherapy/ cancer nurses, radiographers really well; they are an immense source of knowledge/experience and can often provide needed wisdom during those initial daunting on calls.

Patients often remember nothing of what has been said to them after breaking bad news.

Take every opportunity to get involved in radiotherapy planning and get feedback on what you have done.

Start revising for your exams early!

Remember that Consultants and final year registrars have been doing this >50 times longer than you - you will get there.

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5 Checklist

Things to make sure you have done in the first month of starting:-
Got all your passwords.

Read this through

Joined RCR

Had meeting with Educational Supervisor and Clinical Supervisor

Logged on to the ePortfolio

Ensure you're familiar with:

- Chemotherapy referral, assessment, prescribing and monitoring
- Radiotherapy referral
- Management of common oncological problems and emergencies
- On call system and how to arrange out of hours treatment.

Ensure you're registered on the local MSc or other training courses if applicable.

Written by Dr J Mills on behalf of the ORF 2008

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