GUIDANCE FOR NON-MEDICAL PRESCRIBING AND REVIEW OF SYSTEMIC ANTICANCER THERAPIES (SACT) FOR ONCOLOGY AND HAEMATOLOGY PATIENTS.

Document Control

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					Pharmacy Leads and NCA NMPs	medical and clinical oncology training syllabus. Updated references Updated competencies to reflect current NCA NMP practice General formatting. Contact details updated
Lynsey Robson	January 2022		January 2025	2.3	NCA Nursing and Pharmacy Leads and NCA NMPs	NMC NMP competency framework updated. Meditech added to electronic prescribing systems

For more information regarding this document, please contact: Northern Cancer Alliance via the website

1 Executive Summary

Pharmacists and nurses can undertake training to become non-medical prescribers, NMPs. It is anticipated that pharmacists/nurses who have obtained the NMP qualification, have status as independent prescribers and have demonstrated that they have suitable competencies in oncology/haematology, should be able to work alongside consultants. Their roles can include:

- Reviewing chemotherapy patients and prescribing chemotherapy following initial treatment plan/ prescribing decision from their medical colleague
- Prescribing supportive medicines
- Amending, updating and initiating prescriptions at ward level.
- Running clinics, e.g. oral TKIs in urology and myeloproliferative disorders (MPD)

This role can benefit medical prescribers by easing some of the burden of routine prescribing/patient care and ensuring services are responsive to patients' needs. NMPs are not medically trained and are not seeking to replace the role of the doctor.

The purpose of this document is to give guidance for Trusts in The Northern Cancer Alliance (NCA) wishing to develop the roles of oncology and haematology pharmacists and nurse NMPs. The document does this in two ways:

1. A framework for the development of NMP roles is provided. Examples of the types of roles which can be developed are discussed.

2. Competencies that detail the knowledge and skills the pharmacist/nurse as a non-medical prescriber must have and describes the relationship they will have with the supervising consultant they will be working alongside. The competencies have been taken from both the Clinical Oncology and Medical Oncology Curricula which are approved by the respective Royal Colleges.[3,4]

'Chemotherapy refers to any systemic anti-cancer therapy; this includes monoclonal antibodies/targeted therapies, intravenous, subcutaneous, intrathecal and oral chemotherapy as well as topical treatments for bladder cancer; hormonal treatment is excluded.'[1] This guidance also covers the prescribing of immunotherapies for cancer treatment

Chemotherapy nurses, specialist nurses and oncology pharmacists regularly undertake mid cycle reviews of patients receiving anticancer medicines when the patient does not require medical review. This has increased the flexibility of chemotherapy services and has helped manage workload. These mid cycle reviews may or may not involve prescribing depending on the qualifications and experience of the nurse/pharmacist. The NCA believes it is important that NMPs are able to work to the same standards as medical prescribers and therefore achieve the same competences in addition to those undertaken in the prescribing qualification.

Any staff undertaking nurse/pharmacist led review should meet the level one competencies detailed in this document. The levels 1-3 detailed for NMP competence in the framework set out in section 10 of this document is in line with the four new entrustment levels described for medical and clinical oncology training. The

NMP is entrusted with higher level prescribing/review responsibilities and decision making with Level 3 being the responsibility of prescribing cycle 1 treatments. It is acknowledged that the prescribing of cycle 1 treatments is mainly performed by medical colleagues however, there are NMPs in the NCA who are entrusted with cycle 1 prescriptions. However, they only do so after a treatment decision on which regimen to use has been made by the responsible consultant.

When starting as an NMP prescriber in Oncology and Haematology, NMPs should aim to achieve competency levels two and three of the five levels that doctors must achieve in Medical Oncology training. This however restricts the ability of NMP to prescribe first cycle of systemic chemotherapy.

This document, therefore, does not provide a limit on future role developments provided they are within a locally approved framework, subject to local peer review and are consistent with national guidelines.

2 Background

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Nurses and pharmacists have been able to train and become independent prescribers for over a decade. Department of Health (DH) guidance states that NMPs can improve patient care without compromising patient safety by making it easier for patients to get the medicines they need and allowing more flexible team working across the NHS.

The DH's working definition of independent prescribing is prescribing by an 'appropriate practitioner' (e.g. doctor, dentist, nurse, pharmacist) responsible and accountable for the assessment of patients with undiagnosed or diagnosed conditions and for decisions about the clinical management required.

3 Pharmacist and Nurse Roles

This document covers pharmacists and nurses as they are the two main staff groups within SACT pathway that can become independent prescribers. Other professions that can become independent prescribers are optometrists, physiotherapists, podiatrists and chiropodists. Radiographers can become supplementary prescribers and there may be a role within the NCA for radiographers to prescribe supportive medicines for cancer patients undergoing radiotherapy.

Pharmacists and nurses have differing skills but both have a complementary role in non-medical prescribing for cancer patients. This framework does not differentiate between pharmacists and nurses other than in the differences in retrospective professional competencies. Each profession can learn from the other when becoming NMPs and it is suggested that the individual Trusts set up local NMP support forums to share learning and best practice.

Having an oncology pharmacist/nurse initiating a prescription does not eliminate the requirement for a pharmacist's role in checking and validating the prescription and the nurse's role in administering chemotherapy. NMPs must not be directly involved in checking/ administration of prescriptions they have written.

4 Accountability

All non-medical prescribers are personally accountable for their practice and must work to the same standards and competence that applies to medical prescribers. This will include use of electronic prescribing systems or in their absence pre-printed prescriptions and compliance with NHS England approved regimens. As prescribers, health care professionals have a duty to their employers to use resources efficiently and effectively. Therefore, the number and cost of items prescribed must be monitored and local formularies must be considered where they exist.

Nurse prescribers are individually professionally accountable to the Nursing and Midwifery Council (NMC) for this aspect of their practice, as for any other, and must act at all times in accordance with the NMC Code of Professional Conduct. Nurse prescribers must practice within the required NMC competency framework standards to deliver safe and effective prescribing and meet the requirements of the Royal Pharmaceutical Societies Prescribing Competency Framework (2016) as adopted by

the NMC which replaces the NMC standards and proficiency for nurse and midwife prescribers (2006).

Pharmacist prescribers are individually professionally accountable to the General Pharmaceutical Council (GPhC) and must act at all times in accordance with the GPhC Code of Ethics and Standards.

In order to exercise accountability and duty of care, all NMPs must identify and meet their individual continuing professional development needs via, for example, additional training, clinical supervision, clinical placements, reading and research.

5 Workforce and Service Development

It is noted that there will be workforce issues around the development of NMP roles in NCA Trusts, but that these should be dealt with at a local Trust level once the need/ benefits of an NMP has been established. When developing the role of the NMP the key questions for the Trust to address are:

- The need for the pharmacist/nurse to work as an NMP with cancer patients
- The advantages to the Trust of having a pharmacist/ nurse working as an NMP with cancer patients
- Arrangements for 'backfill' of the nurse/pharmacist role when they are working as NMPs.
- NMP training needs and availability of the consultant to support as the overall clinical responsibility for the patients lies with their named consultant.

6 Models of Care: Oncology/ Haematology Clinics

An understanding of the medical model of reviewing patients undertaking chemotherapy is useful to help identify where NMPs can contribute. This document will also give a description of the cancer patient pathway highlighting where pharmacists and nurse NMPs can be involved and also set out the standards for their involvement.

Cancer patients undertaking chemotherapy for solid tumours are generally under the care of consultant medical or clinical oncologist. The model within the Alliance is for the common cancers to be treated in the local Trust, these include breast, colorectal, lung, some upper GI, some urology including renal, prostate and gynaecological cancers. Most of the chemotherapy for these cases is given as day case chemotherapy in oncology outpatient wards within the Trust. Rarer cancers and those regimens requiring prolonged inpatient stay are treated in the cancer centres at Newcastle Hospitals, South Tees Hospitals and North Cumbria. Haematological malignancies are managed in a similar way with Trust haematology services divided into different service levels, with outpatient chemotherapy in level 1/2 services and complex inpatient chemotherapy treated at level 3 /4 centres.

The majority of cancer treatments follow a clinical model based upon initial review at a Multidisciplinary Team Meeting (MDT), where the patient's case is discussed. The MDT usually consists of Pathologists, Surgeons, Physicians, Oncologists, Nurse

Specialists and Physiotherapists etc as appropriate. Pharmacists do not routinely participate in weekly MDT meetings, however as NMPs, their attendance would be valuable. At the MDT the patient's treatment plan will be decided, typically if this is a common cancer such as breast or colorectal, the patient will be having surgery and/or radiotherapy and then at some point be deemed suitable for chemotherapy.

Once it has been determined that chemotherapy or systemic anticancer therapies is the preferred treatment option, they are then referred to a Consultant Oncologist. The Oncologist will see the patients in an outpatient clinic. At the initial appointment they will discuss the patient's diagnosis and the potential treatment plan with chemotherapy. For advanced cancers this will generally involve palliative chemotherapy to extend patient's life/ manage symptoms. Perhaps the largest use of chemotherapy is for adjuvant chemotherapy treatment. That is where chemotherapy is used following surgery or radiotherapy to reduce the risk of the cancer returning and provide systemic treatment to ensure that all cancer cells have been removed from the body.

7 Framework / Clinical Guideline for NMPs

It is recognised that NMPs do not have a medical qualification and therefore, there needs to be a framework ideally as a local clinical guideline, which describes exactly what responsibilities they have during their clinical practice. The principles must be included in Trust medicines policy if NMP prescribing is common within an organisation. It is also recognised that this framework may differ for different types of cancer e.g. adjuvant breast cancer patients present different challenges to lung cancer patients.

A framework/ local clinical guideline should be produced prior to clinics being set up, an example of the template for framework is attached (appendix 1). The framework will define what the NMP will and will not do and also give criteria about referring back to the medical consultant. The guideline can be used as the basis of the business case for developing the role if needed and should be reviewed by the local Trust Chemotherapy Group/ Governance group. Note, it is recognised that there are NMPs working in NCA who have already developed services without a guideline, good governance would be to produce one retrospectively.

In developing the framework/clinical guideline the NMP should involve and seek the views of the doctor(s) they will be working alongside. The structure of clinics and ward based prescribing will vary across the Alliance and hence the role of the NMP in clinic will vary.

Clinic Based Prescribing

NMPs may manage their own caseload as there may not always be a consultant present in clinic/ward to work alongside the NMP. A medical consultant, ideally the patient's consultant, must always be available for medical advice when NMPs are seeing patients, i.e. via phone and the mechanism for this documented in the framework. NMPs must have a clear pathway to refer patients 'back' to the medical consultant for urgent medical review.

Ward Based prescribing

NMPs will have a role in day to day prescribing of chemotherapy between clinic reviews that is 'signing prescriptions' to help support the consultant workload and ensure adequate time is available for service to ensure chemotherapy prepared.

Prescribing supportive care on the oncology day unit or prescribing on inpatient wards can be done on a more routine day to day basis without supervision of a consultant provided there is an agreed framework that covers the NMP's role.

A key feature of the competencies is the ability for the NMP to recognise the limits of their ability. NMPs are not medically qualified and are not seeking to replace/ take over doctors' roles, but to work as part of a team delivering care to cancer patients. NMPs have a professional responsibility to use their judgements and seek medical opinion when confronted with patients who present a clinical challenge or symptoms and signs of which the pharmacist/nurse is unsure of. The pharmacist/nurse NMP and consultant working in parallel within clinic in adjacent or nearly adjacent consulting rooms would facilitate this cross checking.

8 What can NMPs prescribe?

Once qualified, an NMP independent prescriber can prescribe any medicine for any medical condition provided it falls within their area of competence. NMPs must ensure their practice complies with local organisational policies for use of unlicensed medicines and controlled drugs.

8.1 Prescribing First Cycle of Anticancer Medicines

NMPs can only prescribe the first cycle of chemotherapy after a clinical assessment and decision to allocate the course of chemotherapy regimen has been made by the patient's doctor. NMPs cannot make the clinical decision on what chemotherapy regimen to prescribe for the patient.

NMPs who prescribe (authorize) the first cycle following treatment decision (allocation) must ensure the following checks have been undertaken when prescribing the first cycle of chemotherapy. This information must be documented on the clinic letter and/or medical notes detailing initial medical assessment of patient, including history.

a. history of specific diseases or conditions affecting fitness for chemotherapy.
b. performance status
c. prior history of chemotherapy
d. review of current patient's medication
e. that informed consent has been obtained
f. that a holistic assessment has been carried out.
g. An overall treatment plan has been agreed

8.2 Range of systemic anticancer therapy prescribed by NMPs

There is potentially greater demand for NMPs to prescribe for patients with common cancers receiving adjuvant chemotherapy due to the higher volume of adjuvant chemotherapy prescribed. However, depending on the experience of the NMP they can also undertake management of patients diagnosed with advanced cancers.

Oncology/ Haematology Clinical Nurse Specialists/Nurse/Pharmacist Consultants will have significant experience within their own particular patient/ tumour site subgroup and should therefore seek to start/ initially restrict their prescribing to this area, e.g. oncology lung nurse specialists. In addition, some oncology pharmacists have significant experience of one patient group and may wish to initially restrict their prescribing to this area. Some NMPs may prescribe for more than one tumour site depending on their knowledge and skills relating to these tumour groups, however their prescribing will be in line with approved care pathways.

Examples of areas for NMP prescribing include:

- IV anticancer medicines as part of review and authorization of treatment
- Herceptin (trastuzumab) for early breast cancer, NMPs can take responsibility for managing the prescribing for these patients, reviewing their echocardiograms and blood results every three months and authorizing ongoing prescriptions.
- Increasing use of oral treatments for management of various cancers e.g. capecitabine, CDK4/6 inhibitors in breast cancer and TKIs in lung and renal cancers. Pharmacists and nurses are increasingly involved in the review of these medicines and assessing suitability for continuation with therapy.
- Ward based chemotherapy diary management for common cancers, e.g. the NMP may be responsible for reviewing and prescribing allocated prescriptions that have not been prescribed (confirmed) due to non-availability of medical consultant to ensure patients receive treatment in a timely fashion or as agreed process of reviewing current patients to support consultant workload.
- Long term medication for haematology patients, e.g. hydroxycarbamide for patients with myeloproliferative disorders (MPD). For example, patient attends NMP clinic who reviews their blood results, makes any necessary dosage changes and issues prescriptions for the on-going treatment. This may be an attractive alternative to a shared care arrangement as the NMP will work closely with the consultant haematologist easing the 'routine' workload for these patients but the haematologist is onsite and at hand to refer/ discuss management as appropriate.
- Prescribing role on oncology units and on oncology wards in the centre. In the centres this will include a prescribing role for inpatients and in cancer units it is likely to include prescribing supportive care items that are not available under patient group directions (PGDs). For example, varying courses of antiemetics and other medications to treat the side effects of the chemotherapy treatment, or the complications of cancer. Using NMPs to prescribe supportive medicines results in much greater flexibility than using PGDs.

- Urology oncology clinics have increasing capacity pressures due to expansion of eligible patient population for abiraterone and enzalutamide so there is a role for NMPs to support these clinics and release consultant capacity.

9 Practical Prescribing Standards and Revalidation

NMPs must ensure written consent has been obtained before prescribing a course of chemotherapy for the first time for a specific patient. The patient must have been provided with regimen specific patient information as part of the consent process.

All chemotherapy must be prescribed on the electronic Chemocare/Meditech prescribing system.

Blood counts and critical tests must be checked and authorized prior to administration, if these are not known to the NMP prescriber at time of prescribing, local Trust governance policy must detail who is responsible for authorizing treatment to proceed after checking critical tests and blood counts. In practice, the chemotherapy electronic prescribing system should be set up to ensure this happens.

10.1 Prescribing qualification competencies

As part of achieving the prescribing qualification, NMPs have to demonstrate competency in a wide variety of areas e.g.

- Clinical and pharmaceutical knowledge
- Communicating with patients and consultation skills
- Clinical examination skills
- Safe prescribing
- Prescribing in context/ professionalism

10.2 Chemotherapy prescribing competency framework

In preparing competencies for pharmacist NMPs the overriding principle is that pharmacist NMPs should meet the same level of competencies as their medical colleagues. Doctors using the clinical and medical oncology competency frameworks gather and record evidence using an ePortfolio (a web-based tool that enables trainees to log all evidence). Competencies are demonstrated with workplace based assessment methods much as:

- Case-based discussion (CbD)
- mini-clinical evaluation exercise (mini-CEX)
- Multiple consultant report (MCR)
- Multi-source feedback (MSF)
- Patient survey (PS)

Pharmacist NMP's ***do not*** have access to an e-portfolio and ***are not able*** to employ the tools described above to demonstrate competency. Therefore, the demonstration of competencies below must be undertaken with an appropriate medical consultant with practice in the patient group the NMP prescribes for. Case-based discussion (CbD) is likely to form the basis for much of the assessment.

The 2021 Royal College of Radiologists (RCR) Clinical Oncology Syllabus[3] includes competencies that are relevant to non-medical prescribers across several sections in its introductory module and site specific learning outcomes. The 2021 Royal College of Physicians (RCP) Medical Oncology Syllabus[4] also lists similar competencies grouped into broader headings described as capabilities in practice (CiP) which include:

Competency	CiP	Section and page number
Recognises the psychological, financial and social impact of cancer on patients and their families and signpost to sources of ongoing support ▪ Recognises when further or continuing treatment is no longer appropriate and sensitively discusses this with patients and their advocates ▪ Recognises the need for tailored support for specific and/or vulnerable groups, showing sensitivity to issues of equality and diversity ▪ Recognises the limitations of clinical guidelines in certain complex situations	CiP 11 Assessing patients at all stages of the cancer pathway from diagnosis to end-of-life care, considering the holistic needs of individuals and the additional needs of vulnerable groups to formulate patient-centred management plans	section 3.3 page 19
Generates a SACT prescription that is safe and accurate ▪ Evaluates toxicity and response during treatment and adapts SACT/supportive measures accordingly, balancing treatment goals with patient safety and priorities ▪ Assesses and reports SACT toxicity according to regulatory and, where relevant, research governance processes ▪ Collaborates effectively with members of the	Cip12 safely and effectively delivering, and managing patients receiving, standard systemic anticancer therapies (SACT), in the curative neo-adjuvant, adjuvant and palliative setting.	section 3.3, page 20

multidisciplinary team when patients are receiving SACT as part of a multi-modality treatment pathway		
Recognises the factors affecting cancer health inequalities and the social determinants of health, including physical, economic and cultural factors, which impact on cancer risks ▪ Can give personalised risk reduction advice to patients taking into account lifestyle, environmental and genetic factors ▪ Is able to formulate a patient-centred follow up plan for patients who have completed a course of cancer treatment ▪ Promotes survivorship following cancer treatment ▪ Pro-actively manages and educates patients about the long-term sequelae of cancer treatments, in conjunction with other health professionals where relevant ▪ Provides specialist advice to other health professionals regarding cancer risks and appropriate investigation of patients following cancer treatment	CiP 13 Acting as an advocate for health promotion and high-quality cancer survivorship, advising on cancer prevention, management of long-term treatment-related sequalae and patient self-management strategies	section 3.3 page 21

The 2021 RCP Medical Oncology Syllabus[4] includes four levels of CiP for specialty practice entrustment (see table below).

Level descriptors for specialty CiPs

Level	Descriptor
Level 1	**Entrusted to observe only** – no provision of clinical care
Level 2	**Entrusted to act with direct supervision:** The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision
Level 3	**Entrusted to act with indirect supervision**: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision
Level 4	**Entrusted to act unsupervised**

Figure 1. Medical Oncology CiP levels of entrustment (Joint Royal Colleges of Physicians Training Board) [4]

Summary of levels of competence

Level	Summary description
	Foundation and Core Medical Training
0	Can recognise that a patient is receiving systemic cytotoxic or immunosuppressive therapy and alerts senior team members appropriately. No prescription can be undertaken
1	Can recognise important adverse effects of cytotoxic or immunosuppressive therapy and recognises that these agents may need to be stopped
	Specialty Training in Medical Oncology
2	Can undertake a review of a patient receiving systemic anticancer therapy and can authorise the next cycle of treatment to proceed. All prescription requires countersignature
3	Can continue a prescription for systemic anticancer therapy without countersignature but cannot prescribe the first cycle of systemic chemotherapy
4	Can initiate and prescribe systemic anticancer therapy for patients with a range of malignancies, while operating within local guidelines. Can demonstrate appropriate involvement of the patient and carers in decision-making regarding treatment
5	Can demonstrate competence at a level expected of a consultant and can make treatment decisions on all appropriate patients including those that fall outside of departmental guidelines by virtue of a rare tumour type or unique patient factors

Figure One Medical Oncology Competencies in Cytotoxic or Immunosuppressive therapy (Joint Royal Colleges of Physicians Training Board) [4]

10.3 Adoption of Medical Competencies for NMPS

In selecting competencies for NMPs within cancer services, a competency level framework based on the Medical Oncology model as above has been adopted. This is ideal for pharmacist NMPs as it describes a clear progression of competency and progression of practice. Only those competencies that are directly relevant to NMPs are included as not all the competencies appropriate for doctors are appropriate for NMPs, and there are additional competencies that do not feature in the medical model.

Training programmes/competencies for clinical oncology and haematology specialities are structured differently to that of medical oncology but in general cover the same prescribing competencies/CiP for SACT.

10.4 Competency Level 1 Reviewing Chemotherapy Patients

A practitioner working to level 1 is able to undertake a review of a patient receiving systemic therapy and can authorise the next cycle of treatment to proceed. This professional could be medically qualified or an appropriately trained chemotherapy nurse, oncology pharmacist or a professional allied to medicine.

These level 1 competencies form the basis for good practice for nurses and pharmacists who are not NMPs but are routinely involved in nurse/pharmacist led review of mid cycle chemotherapy.

NMP Level 1 Competencies

Knowledge
Can define the range of systemic therapies utilised in the treatment of patients with cancer within the relevant clinical service
Can define the principles for dose delay or dose reduction of cytotoxic or immunosuppressive therapy
Can define the antiemetic requirements of patients receiving cytotoxic or immunosuppressive therapy
Can define the likely adverse effects of the cytotoxic or immunosuppressive therapy in common usage within the relevant clinical service
Can define appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving SACT, including growth factors, antibiotic therapy and blood product support
Can recognise when it is safe to miss a dose of cytotoxic or immunosuppressive therapy
Demonstrates understanding of issues surrounding administration of intravenous therapies, e.g. principles of extravasation treatment.
Skills and Behaviour
Ability to perform a thorough assessment of toxicity and record the clinical information using defined systems such as the Common Toxicity Criteria.
Can review a prescription for SACT and accurately identify any errors or omissions
Can assess patient fitness to proceed with cytotoxic or immunosuppressive therapy
Can correctly and accurately authorise SACT treatment to proceed following assessment of the patient and relevant laboratory investigations

*Note these competencies are taken from medical Oncology levels 0,1,2

10.5 Competency Level 2: Prescribing Second Cycle Onwards

A level 2 NMP is able to prescribe systemic therapy, within local guidelines, or to continue a planned course of treatment but not initiate the first course of treatment. This may include investigational agents in the context of a clinical trial. This professional is likely to be medically qualified or a nurse/ pharmacist NMP.

Note Level 2 includes all of the competencies at levels 1.

Level 2 Competencies

Knowledge

Can define the methods for calculating the correct dose of medication for administration including those based on body surface area, pharmacokinetic and pharmacodynamic principles
Can define the scientific basis and parameters for dose modifications to systemic therapy in the light of clinical data relating to the liver, renal, haematological and other organ systems.
Ability to prescribe antiemetic medications appropriate to the chosen therapy and ability to modify following review of the patient's situation and symptoms following previous treatments.
Ability to define the indications for and adverse reactions associated with the use of blood products and ability to make treatment decision following assessment of a patient's requirement.
Skills and Behaviour
Can prescribe appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving SACT, including growth factors, antibiotic therapy and blood product support
Can prescribe and order SACT following assessment of the patient and relevant laboratory investigations
Can prescribe using local electronic prescribing systems.
Can accurately prescribe SACT using various methods for calculating the correct dose of medication for administration including those based on body surface area, pharmacokinetic and pharmacodynamic principles
Can implement a dose delay or dose reduction of systemic therapies, based upon haematological and non-haematological toxicity
Can manage an extravasation event, following local protocols and involvement of plastic surgeons as appropriate
Can determine that a patient may not be tolerating the treatment as expected and appropriately involves more senior colleagues in the review of the patient

10.6 Competency level 3. Prescribing First Cycle

Working at this level the NMP is likely to be an advanced practitioner working as part of a multidisciplinary team with consultant oncologists and/or haematologists.
The NMP is able to prescribe first cycle of treatment and initiate SACT within an agreed framework after assessment of patient by appropriate medical consultant (oncologist or haematologist).

Knowledge
Can define the scientific mechanism of action of the SACT used in the management cancer patients and identify when this may interact with other prescribed drugs

Can define the requirement of Good Clinical Practice as it relates to clinical trials
Can define the long-term effects of SACT including the impact on fertility and risk of a secondary malignancy
Skills and Behaviour
Can initiate SACT for specific named malignancies following initial assessment of patient by medical consultant, considering the decisions made during a multidisciplinary team meeting and following an agreed treatment algorithm
Can modify the dosage of SACT based on pharmacokinetic and pharmacodynamic information relating to a patient
Can modify the dosage of SACT based upon the co-morbidity of the patient and other factors such as the age of the patient
Can institute appropriate dose modifications of SACT based upon clinical data that relates to organ dysfunction and other biochemical parameters
Can perform a thorough assessment of SACT toxicity and report adverse events to appropriate regulatory authorities
Can assess objective tumour response by clinical, serological and radiological parameters and appropriately involve medical colleagues in the confirmation of response as required.
Can obtain informed consent for SACT following appropriate discussion of indications and likely adverse effects of treatment (in conjunction with medical consultant as part of an agreed pathway)
Can appropriately request assistance or advice when a situation requires the involvement of a more senior colleague

10.7 Pharmacist specific competencies

It is recognised that oncology pharmacists may well have a differing degree of experience and training. An oncology pharmacist is traditionally a title that is given to a job rather than by a route of credentialing and/or demonstration of educational competency. However, there is now a route to credentialing as a specialist oncology pharmacist. BOPA working in partnership the Royal Pharmaceutical Society (RPS) developed the Cancer Care Expert Professional Practice Curriculum for the RPS faculty[5].

This curriculum provides an overview of the knowledge, skills, experiences and behaviours required to practice at advanced level in Cancer Care at three stages: Advanced Stage I, Advanced Stage II and Mastery, in line with the requirements of the RPS Advanced Pharmacy Framework. By completing a portfolio of evidence mapped against the frameworks, pharmacists can apply for credentialing as a specialist with the RPS Faculty.

There is also a higher education route through which pharmacists are able to study and achieve postgraduate qualifications in oncology.

We suggest that any pharmacist who is working as an NMP in oncology or haemato-oncology and prescribing systemic anticancer therapies should meet the following requirements and competencies.

1. Ideally has a post graduate qualification in oncology at minimum of certificate level. This could be an MSc or a Post Graduate Diploma in Oncology.
2. Be working at Agenda for Change Band 8a or above (or band 7 under supervision of more senior prescribing pharmacist)
3. Ideally has achieved membership of the RPS Faculty, at least Stage I by submitting a portfolio of evidence of their practice using the Cancer Care Expert Professional Practice Curriculum to illustrate their expert professional practice.
4. It is recommended that all practicing oncology pharmacists and in particular those who are NMPs are members of the BOPA British Oncology Pharmacist Association to provide a network of support as well as a mechanism to share good practice at a national level.

Employers should require that all pharmacists working as prescribers in oncology should work towards having a portfolio submitted to the RPS faculty for specialist credentialing and demonstrate their competence and continuing professional education in this area by on-going membership of the Faculty. It is recognised that there will be many pharmacists who have undertaken the prescribing qualification who do not have a post graduate qualification in oncology and currently are not members of the RPS Faculty.

It is suggested that these pharmacists should, if they are already working as NMPs, have demonstrated competency through their prescribing course and be signed off by the consultant who was their mentor during the prescribing training. They should demonstrate continuing competency as an oncology pharmacist by undertaking an assessment of their practice against the competencies included in this document. Ideally this assessment should be peer reviewed.

10.8 Specific Nurse Competencies

Nursing staff have to successfully complete the Alliance agreed qualification before they are deemed competent to administer chemotherapy and systemic anticancer therapies i.e. the Chemotherapy Modules delivered by Northumbria, Teesside and Cumbria Universities. This is now recommended to include the UKONS National SACT passport. As well as the prescribing qualification, nurses must be senior experienced chemotherapy nurses working at Agenda for Change Band 7 or above before commencing NMP training in oncology/ haematology.

Therefore, within the NCA we suggest that any Nurse who is working as a non-medical prescriber in oncology prescribing systemic anticancer therapies should meet the following requirements and competencies.

1 Ideally has a post graduate qualification in oncology/ haematology at minimum of Masters level.

2 Be working as and have achieved competency as a Nurse Practitioner, Clinical Nurse Specialists or Nurse Consultant in Oncology/Haematology.

3 Working at 'Advanced Practice' / 'Expert' Level as demonstrated by assessment against the NCA 'Chemotherapy Competency Framework'.

4 It is recommended that all practicing chemotherapy nurses and in particular those who are NMPs are members of the UKONS Chemotherapy Nurses Forum to provide a network of support as well as a mechanism to share good practice at a national level.

Conclusions

It is recognised that this document is not exhaustive. The general principle is that NMPs should meet the same competencies for prescribing anticancer medicines that specialist medical trainees are expected to meet and that best practice is for a framework document or clinical guideline describing the scope of practice of the NMP be prepared.

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Dr Graham Dark, Consultant Medical Oncologist, NCCC

Appendix One

Framework/ Clinical Guideline Template for Chemotherapy Non-Medical Prescriber Clinics

Background
Describe the background to the clinic

Aims
What are the aims of the service?

Resources
Describe the resources in place to run the clinic, e.g. rooms, staffing, etc.

Timescales
Stipulate if the clinic is time limited

Clinical Group
List inclusion / exclusion criteria for patients to be seen in clinic

Patient Pathway & Responsibilities
Consider

- Doctors responsibilities
- Pharmacist NMPs responsibilities
- Describe who will prescribe and what they will prescribe
- Reporting of adverse reactions:
- Frequency of review:
- Describe any specific circumstances where patients may require referral

Training & Competence
Describe necessary competences - refer to framework
Consider

- Patient assessment
- Holistic care
- Prevention and management of side effects
- Chemotherapy administration techniques
- Supplementary prescribing
- Communication

Documentation
Describe what shared notes are used, how the NMP will communicate i.e. dictating clinic letters and what are the arrangements for administrative support.

Audit & Review of Clinic Outcomes
Describe arrangements for audit of clinics where appropriate

Document Approval

Agreed By: Oncologist / Haematologist

Trust Chemotherapy Group

Appendix Two: Record of Oncology Haematology Competencies

Name_____**Job Title**_____

Competency level 1 (Review and Authorise Administration of Systemic Anticancer therapy)	Supporting Statement / List of Evidence	Date Achieved	NMPs Signature
Can define the range of systemic therapies utilised in the treatment of patients with cancer within the relevant clinical service			
Can define the principles for dose delay or dose reduction of cytotoxic or immunosuppressive therapy			
Can define the antiemetic requirements of patients receiving cytotoxic or immunosuppressive therapy			
Can define the likely adverse effects of cytotoxic or immunosuppressive therapy in common usage within the relevant clinical service			
Can define appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving SACT, including growth factors, antibiotic therapy and blood product support			
Recognises when it is safe to miss a dose of cytotoxic or immunosuppressive therapy			
Demonstrates understanding of issues surrounding administration of intravenous therapies, e.g. principles of extravasation treatment.			
Able to perform a thorough assessment of toxicity and record the clinical information using defined systems such as the Common Toxicity Criteria.			

Can review a prescription for SACT and accurately identify any errors /omissions			
Can assess patient fitness to proceed with cytotoxic or immunosuppressive therapy			
Can correctly and accurately authorise SACT treatment to proceed following assessment of the patient and relevant laboratory investigations			

NMP Signature: …….…… Date: ……

Approved by:
(Oncologist / Haematologist)…….. Date: ……

Name_____**Job Title**_____

Competency level 2 (Prescribe Systemic Anticancer therapy - 2nd cycle onwards)	**Supporting Statement / List of Evidence**	**Date Achieved**	**NMPs Signature**
Can define the methods for calculating the correct dose of medication for administration including those based on body surface area, pharmacokinetic and pharmacodynamic principles			
Can define the scientific basis and parameters for dose modifications to systemic therapy in the light of clinical data relating to the haematological, liver, renal and other organ systems.			
Ability to prescribe antiemetic medications appropriate to the chosen therapy and ability to modify following review of the patient's situation and symptoms following treatment.			
Ability to define the indications for and adverse reactions associated with the use of blood products and ability to make treatment decision following assessment of a patient's requirement.			
Can prescribe appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving SACT, including growth factors, antibiotic therapy and blood product support			
Can prescribe and order SACT following assessment of the patient and relevant laboratory investigations			
Can prescribe using local electronic prescribing systems.			
Can accurately prescribe SACT using various methods for calculating the correct dose of medication for administration including BSA, pharmacokinetic and			

pharmacodynamic principles			
Can implement a dose delay or dose reduction of systemic therapies, based upon haematological and non-haematological toxicity			
Can manage an extravasation event, following local protocols and involvement of plastic surgeons as appropriate			

NMP Signature: …….……. Date: ……

Approved by:
(Oncologist / Haematologist)…….... Date: ……

Name_____**Job Title**_____

Competency level 3 (able to prescribe first cycle of treatment can initiate SACT for patients for specific named malignancies following agreed algorithm)	**Supporting Statement / List of Evidence**	**Date Achieved**	**NMPs Signature**
Can define the scientific mechanism of action of the SACT used in the management cancer patients and identify when this may interact with other prescribed drugs			
Can define the requirement of Good Clinical Practice as it relates to clinical trials			
Can define the long-term effects of SACT including the impact on fertility and risk of a secondary malignancy			
Can initiate SACT for specific named malignancies following initial assessment of patient by medical consultant, considering the decisions made during a multidisciplinary team meeting and following an agreed treatment algorithm			
Can modify the dosage of SACT based on pharmacokinetic and pharmacodynamic information relating to a patient			
Can modify the dosage of SACT based upon the co-morbidity of the patient and other factors such as the age of the patient			
Can institute appropriate dose modifications of SACT based upon clinical data that relates to organ dysfunction and other biochemical parameters			
Can perform a thorough assessment of SACT toxicity and report adverse events to appropriate regulatory authorities			
Can assess objective tumour response by clinical, serological and radiological parameters and appropriately involve more senior			

medical colleagues in the confirmation of response as required.			
Can obtain informed consent for SACT following appropriate discussion of indications and likely adverse effects of treatment (in conjunction with medical consultant as part of an agreed pathway)			
Can appropriately request assistance or advice when a situation requires the involvement of a more senior colleague			

NMP Signature: …….…… Date: ……

Approved by:
(Oncologist / Haematologist)…….. Date: ……