

The EONS Cancer Nursing Education Framework



Contents

Acknowledgements	2
Foreword from the EONS President	4
Glossary	6
ntroduction	9
Recommended Teaching and Learning Methods	10
Recommended Assessment Methods	1′
Module 1: Risk Reduction, Early Detection and Health Promotion in Cancer Care	12
Module 2: Cancer Pathophysiology and the Principles of Treatment Decision Making	17
Module 3: Cancer Treatment, Patient and Occupational Safety	20
Module 4: Supporting People Living With, Through and Beyond Cancer	26
Module 5: Supporting People with Advanced Disease and at End of Life	3 [′]
Module 6: Communication in Cancer Care	35
Module 7: Leadership and Management in Cancer Nursing	40
Module 8: Research Utilisation and Evidence in Cancer Care	44
Advanced Cancer Nursing Roles	48

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Foreword from the EONS President

As President of the European Oncology Nursing Society (EONS), I am very proud to present the EONS Cancer Nursing Education Framework 2018!

The very first cancer nursing education document (EONS Post-basic Curriculum in Cancer Nursing) was developed by EONS in 1991 and was one of the first nursing initiatives to receive funding from the European Union's Europe Against Cancer (EAC) programme. The document was then extensively revised in 1998, 2013 and again recently to reflect the progress and developments within cancer care and cancer nursing. Updates and revisions have been funded by EONS. The extensive developments within cancer care, the expanding roles of cancer nurses and changes in educational structures were the main driving forces in the decision to revise and update the contents. In the current revision, we have changed the title to EONS Cancer Nursing Education Framework to better reflect the aim and purpose of the document. The development of this Framework is also an important part of the RECaN project, Recognizing European Cancer Nursing (Campbell et al, 2017). One of the purposes of this project is to promote cancer nursing as a specialty across Europe, based on a mutually agreed education framework.

This cancer nursing education document has proven to be very useful in many countries, with the previous version becoming the most downloaded document in EONS' history. It has been used for a great many purposes, for example as a reference to advocate for more hours of training on certain topics, to promote development of new national cancer nursing programmes and career possibilities, to support continuing education programmes and as guidance for other educational events.

The latest revision was initiated and led by members of the EONS Education Working Group but representatives from all EONS working groups have been actively involved. EONS' member organizations, European National Cancer Nursing Societies, have also been involved in the process together with other experts. For an overview of the developmental process, see Figure 1 below.

EONS members are advised to adapt this Framework to meet their specific professional needs within their country. To help guide the implementation of the Framework, suggestions on how to develop learning outcomes and how to link these to clinical competencies are provided.

I want to take this opportunity to thank all the cancer nursing experts involved in the development of this Framework. It has been a sincere pleasure to lead the process and I would particularly like to thank Rebecca Verity and Patricia Fox, the lead authors and project manager Iveta Nohavova for their incredible engagement and hard work.

A PDF version of the Framework is available at: www.cancernurse.eu/education

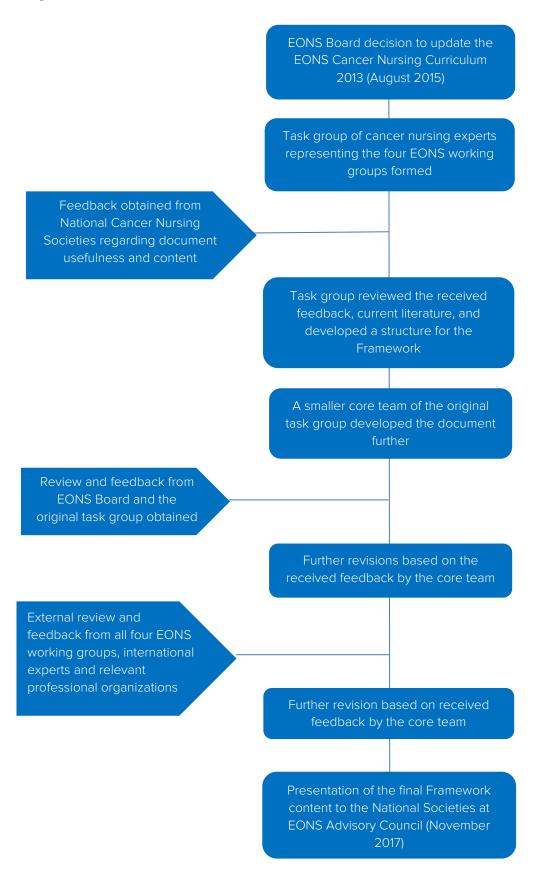
Paper copies can be requested from the EONS Secretariat: eons.secretariat@cancernurse.eu

Please acknowledge the EONS Cancer Nursing Education Framework 2018 when using the document.

Lena Sharp PhD, RN

EONS President and Project lead for the EONS Cancer Nursing Education Framework 2018

Figure 1: Review Process Overview



Glossary

Term	Definition
Advanced Practice Nurse	Registered nurse who has acquired the expert cancer nursing knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master's degree is recommended for entry level. https://international.aanp.org/Practice/APNRoles
Cancer nurse	It is the position of the European Oncology Nursing Society that a cancer nurse is a qualified nurse who has the authority and full responsibility to provide essential nursing care to people affected by cancer. This care is based upon their evidence-based, specialised, ethical and personal knowledge and skills. Cancer nurses are fully accountable in all cancer care settings and across the care continuum for all nursing services and associated patient outcomes provided under their direction.
Carers	Usually relatives but sometimes friends, whom the patient identifies as providing significant unpaid support and care, and as 'sharing the most' in their illness experience.
Chemoprevention	A method of disease prevention by long-term, usually lifelong, medication to modify risk factors.
Competencies	The knowledge, skills, values, and attitudes that are required for cancer nurses to carry out their work safely and effectively.
End of Life (EOL)	People are 'approaching the end of life' when they are likely to die within the next 12 months; this includes those whose death is imminent (expected within a few hours or days).
End of Life Care (EOLC)	Care which is provided to people who are nearing the end of life, including the necessary support to family members and significant others. Usually provided during the last year of life but this is often difficult to predict. The aim is to help people live as well as possible and to die with dignity.
Epidemiology	The study of the distribution of diseases and determinants of diseases in populations, including all forms of disease that relate to the environment and ways of life.
European Credit Transfer System (ECTS)	ECTS "is a learner-centred system for credit accumulation and transfer based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery and evaluation of study programmes and student mobility by recognising learning achievements, and qualifications and periods of learning" (ECTS Users' Guide, 2015).

Term	Definition	
Evidence-based Practice (EBP)	Sackett et al. (2000) define EBP as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research."	
Health literacy	People's knowledge, motivation, and competences to access, understand, appraise, and apply health information. That is, to make judgments and take decisions in everyday life concerning healthcare, disease prevention, and health promotion to maintain or improve quality of life. (Sørensen et al., 2012).	
Multi-professional teams	Teams consisting exclusively of professionals from different professions or disciplines. The terms inter/multi-disciplinary are broader and include all members of healthcare teams, professional and non-professional (Nancarrow et al., 2013).	
Nursing-sensitive outcomes	Outcomes which define the end results of nursing interventions and are indicators of problem resolution or progress toward problem or symptom resolution. The ICN defines a nursing outcome as the measure or status of a nursing diagnosis at points in time after a nursing intervention, while nursing-sensitive outcomes are defined as changes in health status upon which nursing care has had a direct influence. Variables affecting patient outcomes include: diagnosis, socio-economic factors, family support, age and gender, and the quality of care provided by other professionals and support workers (ICN, 2009).	
Palliative care	Is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (WHO, 2002).	
Patient-reported outcome (PRO)	A patient-reported outcome (PRO) is any report coming directly from a patient about a health condition and its treatment. The distinction between a PRO and an observer-generated report is that the PRO is a self-report made directly by the patient without being made through another party (Burke et al. 2006; Osoba 2007).	
People affected by cancer (PABC)	People affected by cancer (PABC) refers to people affected by all types of cancer, including those at risk of developing cancer, people living with cancer, cancer survivors, carers, family members and significant others across the age spectrum and continuum of care (RCN, 2017).	
Self-management	A dynamic, self-empowering, self-directed process of implementing behaviours that recognise, prevent, relieve or decrease the timing, intensity, distress, concurrence, and unpleasant quality of symptoms to achieve optimal performance outcomes. Thus, positive changes in self-management behaviour leads to the achievement of optimal performance outcomes such as functional status (Fu et al. 2004; Hoffman 2013).	

Term	Definition
Supportive care	The prevention and management of the adverse effects of cancer and its treatment for PABC. This includes management of physical and psychological symptoms and side effects across the continuum of the cancer experience from diagnosis, through anticancer treatment, to post-treatment care. Enhancing rehabilitation, secondary cancer prevention, survivorship and end of life care are all integral to supportive care (Multinational Association of Supportive Care in Cancer (MASCC, 2015; NICE, 2004).
Survivorship	Living with, through and beyond cancer: Cancer survivorship begins at diagnosis and includes people who continue to have treatment over the long term, to either reduce the risk of recurrence or to manage the long-term effects of treatment and/or disease through the balance of his or her life. Family members, friends and carers are also impacted.

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Introduction

The EONS Cancer Nursing Education Framework comprises eight modules which identify the fundamental knowledge and skills required for post-registration nurses working with people affected by cancer (PABC). The overall purpose of this Framework is to provide guidance regarding the knowledge, skills and competencies required by nurses who care for PABC as part of multi-professional teams across Europe. This Framework is particularly intended to provide guidance for structuring the learning content of cancer nursing programmes to those individuals and teams who are involved in the education, training and professional development of cancer nurses across Europe.

The modules address the key subject areas which underpin cancer nursing practice with a view to meeting cancer nurses' learning needs around the provision of high quality care to PABC. Reflecting the cancer trajectory, the first five modules focus on the key knowledge, skills and competencies that cancer nurses require from cancer prevention to end-of-life care. The last three modules address communication, leadership and management and research; however, given their critical importance in the context of cancer care, it is intended that these concepts are incorporated across all the modules.

Figure 2: Overview of the Framework



Learning outcomes (what the learner should know) and their relevant practice competencies are identified for each of the eight modules. The learning outcomes seek to address a variety of cognitive levels to encourage more complex learning, such as evaluation, rather than just the demonstration of knowledge and comprehension. The content section is intended to provide guidance regarding the key concepts that need to be addressed in the respective modules to enable 'the learner' to achieve the learning outcomes and practice competencies for each.

With a view to assisting educators and clinical instructors, the bibliography and resources include recent and seminal literature relevant to each of the modules. The content and resources sections include national as well as international standards and policies where relevant

The Framework employs the European Credit Transfer System (ECTS) to identify the workload associated with each of the modules and their explicit learning outcomes. A total of 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent. In general, student workload ranges from 1,500 to 1,800 hours for an academic year, which means that one credit corresponds to 25 to 30 hours of work (ECTS Users' Guide, 2015). For the Framework, each ECTS credit corresponds to a norm of 30 hours of total learner effort. The number of ECTS credits assigned to each module varies, ranging from six to nine ECTS (depending on the associated workload) for an overall total of 54.

On completion of all eight modules, it is recommended that learners be encouraged to undertake a self-directed piece of work. Learners therefore, could obtain a further six ECTS through undertaking a substantial written piece of work, e.g. a portfolio of evidence combining critical reflection. This document should aim to demonstrate overall learning from the programme of study.

As it is anticipated that the resources available for teaching and assessment will vary across the countries that will use this Framework, a variety of methods are suggested (see below). However, where possible, it is recommended that educators employ several different teaching and assessment strategies across all the modules to facilitate different learning styles. This is to provide learners with opportunities to play to their strengths and to learn from feedback provided during formative assessments.

Recommended Teaching and Learning Methods

There are many teaching methods which could be employed, including:

- Lectures
- Guided reading
- Critical reflections
- Clinical visits to wards, clinical treatment centers, out-patient departments
- Laboratory visits
- Case studies
- Group assignments to promote teamwork
- Discussion sessions
- Debates
- Enquiry-based learning (EBL)
- E-learning resources
- Role play (particularly important strategy for improving communication skills) and simulation (with or without actors)
- Simulated learning.

Recommended Assessment Methods

Several different assessment methods may also be employed, where relevant, to assess theoretical and practical knowledge.

Suggested Methods for Assessment of Subject Knowledge	Methods for Assessment of Clinical Competencies
Case studies	Observation in practice
Exam (written)	Conducting holistic assessments/consultations
Multiple choice examinations (MCQs)	Written person-centered care plans
Essays	Delivery of patient education and information
Objective structured clinical examinations	Case studies
(OSCEs)	Practical observed examinations
	A plan for changing or development of an aspect of clinical practice or service delivery
	Preparation and delivery of education/teaching sessions for colleagues
	Critical reflections
	Portfolio of evidence

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Risk Reduction, Early Detection and Health Promotion in Cancer Care

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to enhance the learner's knowledge and skills regarding cancer epidemiology with a view to enabling him/her to play a central role in the context of risk reduction and the early detection of cancer.

Cancer is a major cause of morbidity and mortality globally. As people are living longer, cancer incidence and mortality are expected to continue to increase because of the strong relationship between cancer and advancing age. Epidemiology plays a pivotal role in cancer risk reduction and control by describing the distribution of cancer and discovering risk factors for the disease.

This module introduces the learner to key concepts which have shaped the development of cancer services at national and international levels. More specifically, it focuses on the epidemiology of cancer with respect to the occurrence, distribution and determinants of cancer. Risk reduction strategies, cancer screening and early detection are also addressed.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Describe the epidemiology of cancer.	Describe the occurrence and distribution of the most common cancers with a focus	Cancer epidemiology among migrants and refugees.
		on Europe and nurses' own country.	Occurrence of cancer (i.e. incidence, prevalence, survival and mortality rates) and distribution (i.e. age, sex and region) of the most common cancers.
			Where applicable, utilise national cancer registry data and WHO Global Cancer Country Profiles to describe the occurrence and distribution of cancers in nurse's own country.
2.	Examine the modifiable and non-modifiable determinants of cancer.	Undertake a comprehensive history to identify the individual, familial, genetic, sociocultural, economic and environmental factors which may increase the risk for developing cancer. Identify and explain the multifactorial causes of cancer to PABC.	Knowledge on determinants of cancer (e.g. genetic predisposition, family history, environmental influences, infectious agents, nutritional factors, hormonal and reproductive factors, lifestyle, age, socioeconomic, cultural factors, random errors in DNA copying). Most common genetic mutations/syndromes (e.g. BRCA 1/2, APC, MLH1, MSH 2) in cancer setting.
3.	Describe risk reduction strategies, genetic screening for cancer and appropriate health promotion strategies.	Provide evidence-based verbal and written information regarding life-style related, surgical and chemoprevention risk-reducing strategies for cancer which is appropriate and individualised to PABC. Provide evidence-based	Barriers to effective information provision (e.g. age, language, cultural, health literacy, impaired hearing/vision). Cancer strategy/policy (at a national and European level).
		verbal and written information regarding genetic screening for cancer which is appropriate and individualised to PABC.	Challenges regarding screening and early detection of cancer among migrants and refugees.
4.	Examine current cancer screening strategies.	Provide appropriate and individualised, evidence-based verbal and written information regarding the benefits and	Early signs and symptoms of the most common cancers.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
5.	Identify the signs and symptoms of the most common cancers and explain the concept of early detection.	risks of screening for cancer to PABC. Guided by appropriate health promotion theories/health belief models, provide evidence-based verbal and written information regarding early signs and symptoms of common cancers and when and who to contact at the onset of symptoms.	Evidence-based interventions focusing on genetic testing and cancer screening (including literature on the benefits and limitations of screening). Evidence-based interventions focusing on the following: tobacco cessation, dietary modification, bariatric surgery, alcohol reduction,
6.	Evaluate the nurse's role with reference to risk reduction and early detection in the context of cancer.	Demonstrate use of a range of effective communication skills/strategies to provide information, psychological and emotional support to individuals and communities about cancer, the risk of developing cancer and strategies to reduce risk, including the value of engagement in screening programmes for early detection. Encourage individuals and family members to utilise appropriate local, national and/or international cancer organisations for further information, psychosocial support and/or financial support.	exercise interventions, UV and ionizing radiation protection, vaccination, pollution control, occupational safety, prophylactic surgery and chemoprevention. Health belief theories and health behaviour change theories. Health promotion and health education. Implications of delayed diagnosis. Influence of health policy on individuals and their decision-making. Psychosocial approaches and support organisations of relevance at the outset of a cancer diagnosis (i.e. during diagnostic and staging process). Screening programmes and early detection/rapid access clinics. Social and cultural attitudes to cancer.

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Cancer Pathophysiology and the Principles of Treatment Decision Making

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to enhance the learner's knowledge and skills regarding cancer biology and the diagnosis and staging of cancer with a view to enabling him/her to support and facilitate the decision making of PABC in the context of localised, locally advanced or metastatic disease.

This module focuses on the biological processes that contribute to the development of cancer. It also addresses the diagnostic and staging process and the principles of cancer treatment decision making. The pathophysiology of cancer is important not only for understanding the process of cancer development in the first instance but also for enhancing our understanding of the rationale for the various local and systemic treatments which are administered to people with cancer. Of importance is the role of the nurse within the multi-professional team regarding supporting PABC throughout the process.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Describe the biological processes which lead to the development of cancer.	Provide PABC with evidence- based verbal and written information about the development of cancer with a view to addressing their informational and supportive care needs.	Biology of cancer including the hallmarks of cancer.
2.	Describe the range of diagnostic and staging approaches used to establish a cancer diagnosis, the extent of the disease and prognosis.	Support PABCs through the diagnosis and staging process. Undertake initial and ongoing comprehensive assessments (using validated tools where appropriate) to identify PABCs' informational, physical, emotional and social care needs (where relevant) during the diagnostic	Comprehensive history taking. Diagnostic tests and investigations (tumour, node, metastasis (TNM)/equivalent appropriate staging), grading, biomarkers.
3.	Analyse the nursing role in supporting PABC during the diagnostic and staging process for cancer (particularly in the context of their age-appropriate informational, physical, emotional and social care needs, where relevant).	relevant) during the diagnostic and staging process.	Evidence-based nursing interventions focusing on the provision of support to PABCs during the diagnostic and staging process for cancer. Nursing-sensitive outcomes in the diagnostic/staging process of cancer.
4.	Discuss the different issues which need to be considered in order to support and facilitate patients' decision making in the context of localised, locally advanced or metastatic disease.	Undertake a comprehensive history to identify factors in addition to the cancer stage and grade which are important for optimal outcomes related to treatment decision making (e.g. performance status, comorbidities, medications, psychological and social factors, patient's care and treatment preferences). Provide a supportive environment where PABC are encouraged to share their concerns and to express their preferences regarding the decisions made about their treatment. Encourage PABC to utilise appropriate local, national and/or international cancer organisations for further information, psychosocial, spiritual and/or financial support.	Clinical practice guidelines (CPGs) /evidence-based resources (EBRs) from the main international medical cancer organisations. Decision aids related to cancer treatment. Goals of treatment: e.g. cure, control or palliation. Multi-professional team decision making. Local and systemic cancer treatments and active surveillance. The role of clinical trials and the role of nurses in clinical trials.

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Cancer Treatment, Patient and Occupational Safety

Suggested ECTS credit points: 9

Contact hours: 90 hours

Study hours with practice: 180 hours

MODULE OVERVIEW

The overall aim of this module is to develop the learner's knowledge and skills to safely deliver and manage the impact of therapies which are used to treat cancer.

Cancer nurses play a pivotal role within the multi-professional team in the safe delivery and management of therapies used to treat cancer. An important aspect of the nursing role within the treatment context is to appropriately assess and manage treatment related adverse effects and toxicities. Cancer nurses must also provide relevant and timely information to ensure that PABC can engage in clinical decision-making about their treatment, care and management to enable informed consent, and to understand their treatment and its potential side effects in order to self-manage these. Cancer nurses therefore, require knowledge about the principles, mechanisms and impact of cancer treatments. Within this module the core skills underpinning the provision of safe practice within cancer healthcare settings will also be addressed.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Describe the principles of local and systemic cancer treatments and demonstrate understanding of the different treatment modalities.	Provide information in a range of formats and explain to PABC, at an appropriate level and pace, the range of cancer treatments available to facilitate patients' involvement in clinical decision-making about their treatment, care and management. Provide a supportive environment in which PABC are encouraged to ask questions and share their concerns about their disease and treatment. Advocate for and promote, PABC involvement in decision-making about treatment, care and management.	Chemotherapy. Clinical trials. Combined treatment modalities. Haemopoietic stem cell transplantation. Hormone therapies. Immunotherapies. Integrative oncology. Multi-modal treatment pathways. Pharmacodynamics. Pharmacology and pharmacokinetics. Radiotherapy. Surgery. Targeted therapies.
2.	Identify the acute, chronic and late toxicities of cancer treatments. Identify the evidence to reduce the risk of, and/or manage these effects.	Educate PABC to monitor for and report signs of acute, chronic and late toxicities of cancer treatments. Use evidence-based interventions to assess, prevent and manage treatment toxicities. Know when to refer to and involve other healthcare providers.	Assessment tools for toxicities. Current evidence and local/national/international policies/guidelines for the management of acute, chronic and late toxicities side effects of cancer treatments.
 4. 	Describe and demonstrate how cancer treatments are delivered safely and effectively. Explain the range of support required and available to PABC throughout their treatment.	Be involved in the delivery of treatment within their scope of practice and requirements of the healthcare setting. Provide continuity and help coordinate PABCs' care during treatment and document this. Educate PABC regarding the practical skills required for effective treatment and self-care interventions where	Adherence to cancer treatment. Drug-herb interactions. European and national policies on safety. Extravasation. Chemotherapy spillage. Personal protective equipment.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
		Recognise the hazards	Radiation safety.
		associated with cancer treatments and take preventative actions to minimise these and comply	Safe handling, storage, administration and disposal of cytotoxic drugs.
		with local and national safety regulations, legislation and guidelines.	Resources for safe delivery of cancer treatments.
		Provide information and	Routes of administration.
		support to and act as a role	Safety at home.
		model for colleagues to ensure safe practice in the treatment	Self-care strategies.
		settings.	Surgical safety.
			Telephone triage and supportive care resources.
			Treatment pathways.
5.	Explain treatment-related emergencies and the signs/symptoms experienced by PABC.	Use evidence-based interventions to assess, prevent and assist in the management of emergencies caused by cancer therapies. Know when to refer to and involve other healthcare providers.	Acute reactions to chemotherapy, targeted therapies and immunotherapy. Acute reactions to radiation (e.g. skin and mucosal reactions, pneumonitis). Anaphylaxis. Anemia. Hemorrhagic cystitis. Hypercalcemia Hypersensitivity reactions. Neutropenic sepsis and septic shock. Pathological fractures. Peripheral neuropathy. Post-surgery complications. Spinal cord compression. Thrombocytopenia. Tumour lysis syndrome. Superior ena cava syndrome.

LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
		Uncontrolled side effects e.g. nausea and vomiting, diarrhoea, mucositis.

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Fox, P., Darley, A., Furlong, E., Miaskowski, C., Patiraki, E., Armes, J., Ream, E., Papadopoulou, C., McCann, L., Kearney, N., Maguire R., 2017. The assessment and management of chemotherapy-related toxicities in patients with breast cancer, colorectal cancer and Hodgkin's and non-Hodgkin's lymphomas: A scoping review. Eur. J. Oncol. Nurs. 26: 63-82.

Friese, C.R., Aiken, L.H., 2008. Failure to Rescue in the Surgical Oncology Population. Oncol. Nurs. Forum. 35(5): 779-785.

Friese, C.R., Mendelsohn-Victor, K., Wen, B., Sun, D., Sutcliffe, K., Yang, J.J., Ronis, D.L., McCullagh, M.C., for the DEFENS Study Investigators, 2015. DEFENS – Drug Exposure Feedback and Education for Nurses' Safety: Study protocol for a randomised controlled trial. Trials. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4411718/ Accessed (17 January 2018).

Gassmann, C., Kolbe, N., Brenner, A., 2016. Experiences and coping strategies of oncology patients undergoing oral chemotherapy: First steps of a grounded theory study. Eur. J. Oncol. Nurs. 23: 106-114.

Griggs, J.J., Mangu, P.B., Anderson, H., Balaban, E.P., Dignam, J.J., Hryniuk, W.M., Morrison, V.A., Pini, T.M., Runowicz, C.D., Rosner, G.L., Shayne, M., Sparreboom, A., Sucheston, L.E., Lyman, G.H., American Society of Clinical Oncology,

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Supporting People Living With, Through and Beyond Cancer

Suggested ECTS credit points: 9

Contact hours: 90 hours

Study hours with practice: 180 hours

MODULE OVERVIEW

The overall aim of this module is to equip learners with the knowledge and skills to provide care and support to PABC throughout the cancer trajectory.

Over the last 20 years, enhanced diagnostics and advances in all treatment modalities have improved long-term survival for many patients. Indeed, many types of cancer are now considered a long-term condition. However, extended survival for many people means that they and their families are also more likely to experience, over many years, the longer-term physical and psychosocial effects of cancer and its treatments. Cancer nurses have a pivotal role in the provision of excellent supportive care to PABC covering all phases of disease.

While in this module it is acknowledged that palliative care should begin early in the disease trajectory and be delivered alongside potentially curative treatments, issues related to advanced disease and end of life will be addressed in the next module (Module 5).

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Identify the impact of cancer on the physical, psychological, emotional, social and spiritual wellbeing of people affected by cancer (PABC).	Use evidence-based interventions to assess, prevent and, manage the physical, psychological, social and existential consequences of cancer. Develop an individualized care plan in collaboration with PABC tailored to the phase of disease (e.g. diagnosis, during treatment post-treatment, i.e. survivorship and rehabilitation). Involve specialist palliative support care services where appropriate (linked to Module 5). Know when to refer to and involve members of the multiprofessional team to deliver	Addressing fear of recurrence. Emotional distress. Emotional resilience. Evidence-based symptom management, pharmacological and non-pharmacological. Financial impact of cancer. Healthy diet. Impact of cancer across the life span: from infancy to older age. Impact of cancer on body image, fertility and sexuality. Impact of cancer on vulnerable
2.	Describe the complex and changing informational, educational and supportive care needs of PABC.	Identify and utilise appropriate informational, educational and supportive care interventions aligned to PABCs' needs and lifestage at different phases of the disease. Demonstrate awareness of the range of services and professionals, including statutory, voluntary and charitable organisations, available to support PABC and refer appropriately to meet the individual needs of PABC.	and disadvantaged groups. Nutritional support. Philosophy of palliative care. Poly-pharmacy, concordance and adherence in long-term cancer management. Psychological care and support. Psycho-social adjustment to cancer. Spirituality and existential distress. Supportive care interventions. Symptom burden. Symptom clusters. The age-specific needs of teenagers and young adults. The age-specific needs of specific groups such older adults. The shifting perspectives model of survivorship in cancer.
3.	Describe theories of self- management and self-	Provide information to PABC to promote and support self-care	Managing fatigue.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
	empowerment as well as lifestyle interventions for improving quality of life.	and self-management and enable independence. Consider the needs of younger and older patients who may not have independence to make decisions for themselves.	Motivational interviewing.
			Peer support.
			Role of exercise.
			Smoking cessation.
		Signpost PABC to other sources of support.	Support needs of families/carers.
			Theories of coping.
			Theories of self-management and self-care.
			Transition from paediatric to adult services for teenagers and young adults.
4.	Examine the potential impact of co-morbidities and the consequences of long-term and late effects of cancer treatment.	Identify individuals who are at high risk of long-term and late effects, including risk of secondary cancer. Appropriately consider comorbidity, the impact of long-term illness and survivorship on the health status and well-being of PABC and implement appropriate referrals to other professionals and agencies in respect of these. Deliver supportive care to manage cancer co-morbidities and other diseases (e.g. COPD, Diabetes).	Co-morbidity and other disease states in cancer care. End of treatment summaries. Frailty in older adults. Impact on fertility and sexuality. Psychological long-term effects e.g. depression, anxiety, fear of recurrence, post-traumatic stress disorder etc. Physical long-term effects of treatment e.g. osteoporosis, lymphoedema, fatigue, secondary cancers, cardiac
			failure, growth disruption etc. Rehabilitation.
			Risk assessment of late effects. Social impact e.g. on education
			and career, relationships etc.
5.	Recognise the importance of smooth transitions such as between acute healthcare settings and home care, from active treatment to survival programmemes, or from	Act to support effective continuity of care and seamless transitions between different healthcare services, from active treatment through to survivorship (long-term follow-up) and/or palliative and EOLC.	Discharge planning.
			Liaison with other services.
			Role of different health and social care agencies in supportive cancer care.
	paediatric to adult cancer services.		Transition of care from child to adult services.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
6.	Demonstrate insight into the emotional labour	Seek emotional and developmental support when	Caring for self. Emotional intelligence.
	involved when caring for PABC throughout the spectrum of cancer care	required. Actively support colleagues.	Emotional resilience.
	and evaluate reasons why care of the self and colleagues is important.	Act as a role model.	Support for colleagues.

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Supporting People with Advanced Disease and at End of Life

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to help learners develop their knowledge and skills to deliver a high standard of palliative and supportive care to those who are living with advanced disease including at end of life.

People living with advanced disease can experience multiple and complex physical, practical, psychosocial, emotional and spiritual needs. Cancer nurses have a pivotal role in not only ensuring that people live well until they die but also in providing the conditions for experiencing a dignified death in accordance with their wishes.

As specified by the World Health Organisation, palliative care should be introduced to PABC early in the disease trajectory (not just at end of life) and delivered alongside treatments which aim to prolong life, such as chemotherapy and radiotherapy (WHO, 2002). However, it is recognised that within cancer healthcare services, where care may be focused on a curative approach, there are challenges and barriers to incorporating a palliative care approach. Therefore, this module should aim to offer the learner practical strategies on how to apply and integrate the palliative approach when they care for PABC.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module cancer nurses will be able to:	At the end of this module cancer nurses will be able to:	(in alphabetical order)
1.	Explain how the philosophy and principles of palliative care and end of life care are implemented in their own care setting, e.g. supportive care, palliative care and end-of-life care.	Recognise that palliative care is the responsibility of all cancer care professionals regardless of healthcare setting. Identify the barriers to integrating palliative care and act to address them. Inform, support and educate PABC about palliative and endof-life care where appropriate. Demonstrate an open attitude towards and act as an advocate for palliative care. Raise awareness and educate colleagues about palliative care.	Barriers to palliative care. Historical journey of palliative and end-of-life care. Impact on survival. Interface between active cancer treatment and palliative care.
2.	Describe the important role of palliative care throughout the disease trajectory.	Recognise the importance of effective continuity of care and seamless transitions between different healthcare services, from active treatment through to end of life. Facilitate appropriate discussions between health and social care professionals, patients and their family members to elicit their preferences with respect to goals of care and the transition between care aimed at cure and end-of-life care.	Advance care planning. Advanced disease symptom management e.g. breathlessness, pain, nausea and vomiting etc. Case management in advanced disease and EOL. Communication skills used for challenging conversations. Holistic Needs Assessment. Transitional palliative care.
3.	Identify the physical, psychological, social, emotional and existential impact of advanced disease.	Undertake a holistic assessment of the needs, concerns and symptoms commonly experienced by PABC receiving palliative and/or end-of-life care. Identify and deliver evidence-informed nursing interventions to support patients and carers. Recognise and support vulnerable patients e.g. the elderly, cognitively impaired.	Transitional patitative care.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module cancer nurses will be able to:	At the end of this module cancer nurses will be able to:	(in alphabetical order)
4.	Describe the signs of dying and distinguish between reversible treatable symptoms and those which indicate the final phase of life.	Recognize the final phase of life. Communicate sensitively, truthfully and without ambiguity about the dying process with PABC. Deliver appropriate interventions to guide and support PABC and their carers through the dying process. Involve and know when to refer on to other healthcare providers.	The biology of dying (recognising the dying process and biological criteria for defining death at the end of the dying process). Communication skills for EOLC. Decision making at EOL. The key symptoms of dying, e.g. agitation, dry mouth, and their management.
5.	Define the goals of care when a person is dying e.g. patient comfort and dignity, symptom management, family and caregiver support.	Provide appropriate nursing interventions to promote patient comfort and dignity. Respect and respond to different cultural and religious perspectives/needs at EOL. Identify the need and implement strategies for involving and supporting the family and carers.	Comfort measures e.g. mouth care, privacy. Cultural/religious approaches to death and dying. Last offices. Legal and ethical issues involved in EOL care. Spiritual care. Symptom management.
- 6.	Explore theories of loss, grief and bereavement and how these are applied in clinical practice.	Use active listening and observation skills to recognise, assess and appropriately support a person experiencing distress. Know when to refer and involve other healthcare providers. Support and give advice to families and carers following death.	Family support and bereavement counselling. Sustaining hope. Theories of loss and grief.

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Communication in Cancer Care

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to help learners to develop the knowledge and skills required for effective communication with PABC throughout the spectrum of cancer care.

Effective person-centered communication is consistently identified as being a key factor in determining patients' and carers' needs, concerns and preferences but also patients' satisfaction, adherence to treatment, recommended behaviour change, safety, improved outcomes and recovery.

Nurses working in cancer care settings can be exposed to very difficult and distressing situations, some of which can be extremely challenging. Insufficient educational preparation and training in communication has been found to be a major factor contributing to stress, lack of job satisfaction and emotional burnout in healthcare professionals.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Discuss the importance of effective person-centered care communication in the clinical setting in general and in the cancer setting in particular.	Effectively utilise verbal, written and digital modes of communication to provide information, education and support in an emphatic, clear, understandable and caring manner while maintaining confidentiality.	Barriers to effective communication: e.g. age, language, sensory impairments, communication impairments, low literacy, poor health literacy, certain medical conditions, anxiety, physical discomfort, heavy workload, time pressure, inadequate staffing, unsuitable environment/ distractions, breaking bad news strategies e.g. SPIKES Communication goals and needs of PABC. Confidentiality and data protection. Consideration of challenges related to use of
2.	Demonstrate knowledge of communication theories and how they are applied in practice, including strategies for conducting assessments.	Select and adopt an appropriate communication approach, from a range of core communication and consultation skills, to effectively assess the informational, educational and supportive care needs of PABC throughout the cancer trajectory.	
3.	Describe the barriers to and facilitators of effective communication when interacting with PABC.	Assess for and address any patient-related, nurse-related or environmental barriers to effective communication.	untrained/unqualified translators. Core communication skills, e.g. active listening, identifying cues and exploring concerns, paraphrasing, reflection, silence, non-verbal communication. Evidence-based patient information and education materials which are clearly written, literacy friendly
			Facilitators of effective communication: use of core communication skills, caring attitude, privacy, quiet spaces, designated time, use of appropriate translators, sensory aids.
			Impact of nurse-patient communication on health outcomes (e.g. adherence to treatment) and on patient experience.
			Impact of nurse-patient communication on patient and health professional satisfaction. Individualised, achievable
			person-centered goals, plan of

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
			care/action plan with timely review periods. Needs assessment tools. Patient/person-centered communication. Person-centered care. Shared decision-making.
4.	Explore the importance of multi-professional communication in cancer care and how this how can be enhanced.	Appropriately select from a range of communication skills and styles available in order to promote clear and unambiguous information exchanges with other health professionals.	Communication tools, e.g. SBAR, SAGE & THYME, closed loop communication, briefing, debriefing, etc. Confidentiality and data protection. Effective team work. Evidence-based patient information material. Managing professional boundaries in face-to-face and digital communication. Methods and principles for effective professional communication. Principles and methods for
5.	Identify supportive	Demonstrate emotional literacy,	effective clinical information exchange with focus on safe handovers and care transitions. Verbal, non-verbal and written communication. Compassion fatigue, burnout
	strategies which will help cancer nurses to develop emotional resilience.	reflective ability, appropriate empathy and social competence. Act as a role model for others. Recognise own emotional needs and act accordingly using help seeking behaviour to prevent burnout.	and its impact on communication. Emotional resilience, reflective ability, emotional intelligence. Social confidence, social support, reflective practice, supervision, peer coaching, mindfulness, experiential learning.

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Module 7

Leadership and Management in Cancer Nursing

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to equip learners with the leadership skills to facilitate team management and to organise work and practice development within a cancer setting. Regardless of role or position, all cancer nurses are expected to provide leadership. Multi-professional team working is vital in cancer care. Therefore, cancer nurses need to develop skills in interpersonal relationships, communication and workforce development.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Differentiate between leadership and management and consider how different models of clinical leadership may impact on the care provided to PABC.	Use appropriate leadership and management strategies to practice and evaluate the impact of these strategies upon PABC and on other healthcare professionals.	Challenges of clinical leadership – balance between support and challenge.
			Change management.
			Delegation and communication.
			Development of nursing roles.
			Differences between leadership and management.
			Importance of the role of modelling.
			Leadership skills for collaborative and effective teamwork.
			Models and theories of management and leadership.
			Political and emotional intelligence, self-awareness, social skills, social awareness, self-management.
			Theories of leadership.
			What makes a good leader.
2.	Describe the importance of the legal, ethical and	Practice in accordance with legal, ethical and professional	Caring, therapeutic, interpersonal relationships.
	professional issues in relation to the care of PABC.	principles in order to provide safe, effective, timely, costeffective care to PABC.	Clinical audit and standards for practice, quality improvement data.
		Practice in accordance with national and local policies and standards in order to provide safe, effective, timely, costeffective care to PABC. Provide leadership in the contribution to and implementation and	Core communication skills.
			Good governance with clear structures and accountability.
			Importance of adherence to relevant legislation, policies, protocols, guidelines.
		evaluation of policies and standards relevant to cancer care.	Importance of nursing input at a strategic level and in local and national policy development.
			Membership and leadership of multi-professional teams.
3.	Describe the principles of risk assessment and management	Assess risk and implement appropriate risk management strategies in order to promote	Quality improvement strategies.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
	in relation to the care of PABC.	patient well-being and safety in practice.	Risk assessment and safety.
4.	Discuss the importance of self-development and emotional resilience for cancer nurses.	Demonstrate evidence of continuing professional development and actively promote the professional development of nurses working in other areas of the	Continuing professional development for cancer nurses and healthcare assistants. Foster a mentoring culture.
		organization.	Lifelong learning.
			National and international networking.
			Postgraduate education for nurses.
			Supporting staff and creating opportunities to develop emotional resilience.
			Training in leadership and management.
5.	Discuss the importance of relevant resource management strategies in relation to cancer care.	Demonstrate the ability to plan, allocate, coordinate and evaluate the use of healthcare resources in an appropriate manner when providing care to PABC.	Financing of healthcare delivery together with continuation planning and resource management, as appropriate for national context.
			Importance of continuity, coordination and evaluation of care pathways.
			Managing human resources, lay carers, nursing colleagues and students.

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Module 8

Research Utilisation and Evidence in Cancer Care

Suggested ECTS credit points: 6

Contact hours: 60 hours

Study hours with practice: 120 hours

MODULE OVERVIEW

The overall aim of this module is to provide the learner with the necessary knowledge and skills to enhance research utilisation and the provision of evidence-based care.

Cancer nurses play a central role in the development and implementation of evidence-based practice. An understanding of the research process and the different research methodologies (including clinical trials) is necessary to facilitate research utilisation, initiate quality assurance processes and the implementation of evidence-based care. This module aims to develop the skills of the learner regarding searching, retrieving and critically appraising research for cancer care in cancer nursing.

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
1.	Explain how knowledge and evidence are developed for clinical practice.	Demonstrate the ability to provide an evidence-based rationale for interventions in cancer care in general and in cancer nursing in particular.	Barriers to and facilitators of research utilisation.
			Different research designs, their strengths and limitations.
		Identify the strengths and limitations of the different	Ethical issues in research and evidence-based change.
		research methodologies employed.	Importance of research utilisation in nursing.
			Introduction to research methodologies and evidence-based practice.
			Levels of evidence pyramid.
			Use of specialist knowledge to contribute to the development of evidence-based policies and procedures and practice development for cancer nursing.
			Writing reports, presentation of clinical research/evidence.
2.	research and evidence- based clinical practice guidelines (CPGs) relevant to cancer care and cancer nursing. re u si	Retrieve high quality research articles and evidence-based guidelines relevant to cancer care and cancer nursing by formulating effective research questions and utilising effective search strategies for sourcing relevant electronic and print material.	Effective search strategies, information skills tutorials.
g			Electronic databases (e.g. PubMed, CINAHL Plus, Embase, PsycINFO, Cochrane library); print/e-journals and print/e-books.
			Relevant websites for CPGs/evidence-based resources (see "Resource list").
			Use of validated criteria/framing structures to formulate research questions (e.g. PICO, PICOT).
3.	Critically appraise peer- reviewed research articles	Appropriately apply evidence-based	Analytical and critical thinking.
	and CPGs relevant to cancer care and cancer nursing.	recommendations in the clinical area having	Critical Appraisal Skills Programme (CASP).
		considered the strengths and limitations of the research.	Clinical decision-making (internal and external evidence).

	LEARNING OUTCOMES	PRACTICE COMPETENCIES	LEARNING CONTENT
	At the end of this module, cancer nurses will be able to:	At the end of this module, cancer nurses will be able to:	(in alphabetical order)
4.	Describe the principles of cancer clinical trials and discuss the role of the nurse in this context.	Provide safe and effective care to patients on clinical trials in accordance with study protocols with a view to ensuring optimal outcomes and experiences for patients.	Introduction to cancer clinical trials including the different types (phases), benefits, risks and ethical implications. The role of the nurse in cancer clinical trials: utilisation of appropriate strategies to safeguard the interests and wellbeing of patients including the obtaining of informed consent, maintaining patient confidentiality and dignity, documenting and reporting drug interactions or other adverse events where required. The role of the cancer nurse in nursing-led clinical trials and trials on prevention and screening.
5.	Describe the use of health services research in cancer service development and explore the role of clinical audit in practice development.	Describe and contribute to health services research and clinical audit in their clinical area.	Health service evaluation and clinical audit. Health technology assessments. Resources required to support clinical audit, ethical issues and data protection. The five-stage approach to clinical audit.

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Advanced Cancer Nursing Roles

One of EONS' most important strategies is to gain recognition for cancer nursing as a specialty all over Europe, which means that specialist cancer nursing programmes should be available in all countries. However, despite cancer nursing's added value in terms of patient outcomes, regulations and requirements for and recognition of advanced cancer nursing roles vary across Europe.

The EONS Cancer Nursing Education Framework provides nurses, nursing educators, clinical instructors and healthcare organizations with guidance, identifying the knowledge, skills and competencies required by nurses who care for PABC whatever their level of practice. However, it is crucial to recognize that it is vitally important for nurses who complete the modules to continue their professional development and build upon the knowledge and skills outlined in this document. Research shows that higher nursing education is associated with improved patient outcomes and safety (Aiken et al, 2014) and that advanced nursing roles are safe, effective and well received by patients (ICN, 2017).

Existing advanced cancer nursing roles vary considerably across Europe at present. Cancer nurses in the UK, Netherlands and Ireland may have roles as clinical nurse specialists (CNS), nurse practitioners (NP) or advanced nurse practitioners (ANP) with very wide-ranging tasks (described below). In most cases, a master's degree or higher academic title is required for these roles. Other countries, such as Sweden, have specific roles in cancer care e.g. contact nurses, which have been associated with improved cancer patient experiences. However, this role does not formally require specialization in cancer nursing or any higher academic qualifications, making the role unclear and unspecific. Countries without established and formally recognized advanced cancer nursing roles risk losing many highly-qualified nurses in clinical practice (Lagerlund et al, 2015).

The International Council of Nurses (ICN, 2017) has developed guidelines for the NP and ANP role. The educational requirements include:

- educational preparation at an advanced level
- formal recognition of educational programmes
- accreditation
- formal system of licensure, registration and certification.

ICN also describe the nature of practice for the NP and ANP roles (ICN, 2017). This includes the following:

- integrates research, education, practice and management
- high degree of professional autonomy and independent practice
- case management/own case load
- advanced health assessment skills, decision-making skills
- diagnostic reasoning skills
- recognized advanced clinical competencies
- provision of consultant services to other health providers

- plans, implements and evaluates programmes
- recognized as first point of contact for clients.

There are also regulatory mechanisms related to the NP and APN role that may be country specific. Among these regulations are:

- right to diagnose
- authority to prescribe medication
- authority to prescribe treatment
- authority to refer clients to other professionals
- authority to admit patients to hospital and other health care facilities.

Cancer nurses who develop their level of practice, in advanced level roles, can continue to develop their competencies and are often clinical role models, mentors, leaders, and supervisors and able to influence practice and policy. They could therefore, have a positive impact on quality of care, turnover rates, recruitment and other important factors in health care. It is important to offer clinical nursing positions which require higher academic qualifications that could be combined with development and research, to enable cancer nurses to work to their full potential and to quarantee access to advanced cancer nursing care for PABC.

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The EONS Cancer Nursing Education Framework 2018 was produced by the European Oncology Nursing Society

A PDF version of the Framework is available at: www.cancernurse.eu/education Paper copies can be requested from the EONS Secretariat: eons.secretariat@cancernurse.eu