

Neuroendocrine Cancer Nurse competency framework







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This Framework is dedicated to all past, current and future members of the Neuroendocrine Cancer Community.



Introduction

Neuroendocrine Cancer: a nurse competency framework

Nikie Jervis (a), Philippa Hand (b), Aisling McSweeney (c), Angela Williamson (d), Wendy Martin (e), Michael Tadman (f), Irene Wotherspoon (g)

- a Neuroendocrine Cancer UK, Leamington Spa, Warwickshire
- b Macmillan Senior Nurse Cancer Services, London North West University Healthcare NHS Trust
- c ENETs Centre of Excellence for Neuroendocrine Tumours, Royal Free Hospital, London
- d ENETs Centre of Excellence for Neuroendocrine Tumours, Freeman Hospital, Newcastle
- e ENETs Centre of Excellence for Neuroendocrine Tumours, Kings College Hospital, London
- f ENETs Centre of Excellence for Neuroendocrine Tumours, Churchill Hospital, Oxford
- g ENETs Centre of Excellence for Neuroendocrine Tumours, The Beatson Cancer Centre, Glasgow

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Abstract

The Neuroendocrine Cancer Nurse competency framework was developed by a working group of neuroendocrine cancer nurse specialists to enhance the clinical care that adults with a neuroendocrine cancer receive. By preparing a competency framework from which an adult nurses can work, from those who may not see many people with Neuroendocrine Cancer to those who have taken on a specialist nurse role for this group of cancer patients, it is envisaged that their development as professional practitioners can be enhanced. It introduces new competencies that cover the many and varied types and sites of Neuroendocrine Cancer - for nurses to utilise those applicable to their particular sphere of practice. The authors welcome constructive feedback on the document, both nationally and internationally, in anticipation that further developments and ideas can be incorporated into future versions.

Keywords: nursing; neuroendocrine cancer; competency framework

Correspondence

Nikie Jervis, Neuroendocrine Cancer UK, Holly House, 74 Upper Holly Walk, Leamington Spa, Warwickshire, CV32 4JL

Email: nikie@nc-uk.org

Introduction

According to Fukada (1) 'Nursing competency includes core abilities that are required for fulfilling one's role as a nurse'. It has also been defined as 'the state of having the knowledge, judgement, skills, energy, experience and motivation required to respond adequately to the demands of one's professional responsibilities' (2).

Adult neuroendocrine cancer nursing is a highly specialised field where expertise in both knowledge and appropriate skills can make a significant contribution - 'especially in the promotion and maintenance of high standards of practice, education for the patient' and the application of safe evidence-based knowledge and skills 'the patient requires when diagnosed with a rare disease' (3).

Whilst considered rare, 'Neuroendocrine Cancer' has seen an exponential growth in incidence, in the UK, over the last two decades - from approximately 2: 100,000 in 2001 to 8.7: 100,000 in 2015 (4). However, the heterogeneity in primary site and disease behaviour, alongside variation in symptoms, can lead to wide variation in where and how patients may initially present and be investigated, before reaching a definitive diagnosis and appropriate specialist care (5).

Introduction

There is an identified gap in nurse education regarding neuroendocrine cancers - they are not currently part of the oncology curriculum, nor are they completely covered within endocrinology, gastroenterology, respiratory/cardio-thoracic or other formal resources. Studies have found that the presence of a specialist nurse has the potential to support a more positive patient experience (6,7,8,9). Yet, research suggests that many nurses, even those within the Neuroendocrine Cancer field, do not have the confidence to help and support those diagnosed with it (10,11). While confidence is not a substitute for competency, it is an important characteristic of the healthcare workforce, in professional development and delivery of care (12).

In 2018, a working party of experienced neuroendocrine cancer specialist nurses confirmed the unmet need in awareness and availability of specialised education in neuroendocrine cancers amongst the nursing community. They agreed a consensus statement on a specialist competency framework to address this need, raise awareness, raise confidence, skills and knowledge to promote and enhance appropriate care for those diagnosed and living with Neuroendocrine Cancer.

This Neuroendocrine Cancer Nurse Competency (NCNC) framework builds on core nursing competencies, from entry level to the speciality (competent practitioner), progressing through to the skills and knowledge required at Advanced Practitioner level (expert practitioner). It recognises the continuous learning process inherent in professional nursing practice

These competencies are not an exhaustive list of knowledge areas and all skills required to treat and care for those diagnosed with Neuroendocrine Cancer: recognising that that knowledge in this rare and less common groups of cancers is constantly evolving.

From primary through to tertiary/specialist care and from general awareness to an in-depth understanding of neuroendocrine cancers, studies have highlighted the many areas nurses may encounter neuroendocrine cancer patients - the most common being oncology, endocrinology and surgery - but also include nuclear medicine, gastroenterology, lung and internal (general) medicine (10,11). Therefore nurses, and their clinical managers, will need to select the specific competencies and level that is appropriate to their role. In addition, it is recognised that some nurses may be caring for patients in situations not covered in this document.

The NCNC framework contains 3 levels of practice and an indicative timeframe within which a UK nurse may reasonably attain the level of knowledge and skills indicated; this should be interpreted cautiously because the rate at which nurses will gain experience will depend on the degree of clinical activity in their centre, the roles that nurses are allowed to undertake in the UK vs. other countries the nurse may have come from and the transferability of skills from previous roles:

- competent, in practice for over 6 months (level 1)
- proficient, in practice for 18-24 months (level 2)
- expert, in practice for a minimum of 3 years (level 3).

Each level of practice includes indicators that provide a standard against which nurses can measure their personal practice - including a reflective practice record. Where possible, evidence sources supporting the indicators is referenced - these include guidelines, publications and other resources, as well as pointers to disease-specific and/or related education and training opportunities.

By preparing a competency framework from which an adult nurses can work, it is envisaged that their development as professional practitioners can be enhanced. The NCNC framework introduces competencies, not available elsewhere, that cover the many and varied types and sites of Neuroendocrine Cancer - for nurses to utilise those applicable to their particular sphere of practice.

The authors welcome constructive feedback on the document, both nationally and internationally, in anticipation that further developments can be incorporated into future versions.

Introduction

(Authors have included a template that may be used to record progress alongside each competency - and one that may be used for recording reflective practice - this can be found in Appendix 1).

The Neuroendocrine Cancer Nurse Competency Framework received RCN Accreditation in May 2021

This publication contains information, advice and guidance to help members of the Neuroendocrine Cancer community. It is intended for use within the UK, but readers are advised that practices may vary within, across and outside of the UK. The information in this publication has been compiled from professional sources, but its accuracy is not guaranteed.

Whilst every effort has been made by the authorship and Royal College of Nursing accreditation process to ensure accurate, expert information and guidance, it is impossible to predict all the circumstances in which it may be used.

Accordingly, to the extent permitted by law, the Royal College of Nursing and contributing authors, shall not be liable to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by what is contained in or left out of this information and guidance. Neither can the authorship or Royal College of Nursing confirm competence of any practitioner utilising and / or completing this competency framework.

Neuroendocrine Cancer Nurse Competency Framework Working Group

Nikie Jervis (a), Philippa Hand (b), Aisling McSweeney (c), Angela Williamson (d), Wendy Martin (e), Michael Tadman (f), Irene Wotherspoon (g)

- (a) Nikie Jervis is the Nurse Specialist at Neuroendocrine Cancer UK providing support, information, education and advocacy for those affected by Neuroendocrine Cancer. Formerly lead Neuroendocrine and Hepatobiliary Cancer Nurse Specialist at Kings College Hospital, ENETs Centre of Excellence for Neuroendocrine Tumours for 16 years with more than 25years experience in neuroendocrine, liver and pancreatobiliary oncology also acute/chronic hepatology including chemotherapy, ITU and liver transplantation. She has completed a post-graduate diploma in Health Informatics and was a former guest lecturer on the liver course at Kings College London. She speaks nationally and internationally at conferences and meetings and is on the Medical Advisory Board for INCA (International Neuroendocrine Cancer Alliance).
- (b) Philippa Hand is Senior Nurse Cancer Services at London North West University Healthcare Trust. Formerly lead nurse for neuroendocrine cancers at the Royal Free ENETs Centre of Excellence for Neuroendocrine Tumours for 13 years more than 20 years in oncology. She has completed a masters in advanced cancer care and her dissertation was related to diet and neuroendocrine tumours. She speaks nationally and internationally at conferences and meetings.
- (c) Aisling McSweeney is a Neuroendocrine Cancer Clinical Nurse Specialist at the Royal Free ENETs Centre of Excellence for Neuroendocrine Tumours.
- (d) Angela Williamson is the Clinical Nurse Specialist for Neuroendocrine Cancer at the Freeman Hospital, Newcastle ENETs Centre of Excellence for Neuroendocrine Tumours. She speaks nationally and internationally at conferences and meetings.
- (e) Wendy Martin is the Lead Neuroendocrine and Hepatobiliary Cancer Nurse Specialist at Kings College Hospital ENETs Centre of Excellence for Neuroendocrine Tumours, a post held for more than 6 years. Former experience in neuroendocrine, liver and pancreatobiliary oncology with more than 20 years experience including acute and chronic hepatology, including ITU and liver transplantation. She has completed a masters in advanced cancer care and her dissertation was related to Carcinoid Heart Disease in Neuroendocrine Cancer. She speaks nationally and internationally at conferences and meetings.
- (f) Michael Tadman is the lead Acute Oncology Advanced Nurse Practitioner for Neuroendocrine Cancer, working at Oxford University Hospitals Trust, ENETs Centre of Excellence for Neuroendocrine Tumours. He has published multiple papers on reviews of practice and methods of monitoring disease progression and is co-editor of the Oxford Handbook of Cancer Nursing (2nd edition). He speaks nationally and internationally at conferences and meetings.
- (g) Irene Wotherspoon is the Advance Clinical Nurse Specialist for Neuroendocrine and Thyroid Cancer at the Beatson's ENETs Centre of Excellence for Neuroendocrine Tumours a post she has held since 2016. Formerly Palliative Care Clinical Nurse Specialist in the Victoria Infirmary, Glasgow undertaking a combination of Clinical and Education roles within Palliative and Cancer Care and Universities. She completed an MSc in Specialist Nursing (Palliative Care) and gained a Specialist Practitioner Qualification in Palliative Care in 2009. In recognition of her academic work Irene has been recognised as Fellow of the Higher Education Academy.

E

Competent : APC level 5-6 : Diploma/Degree

Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the Endocrine and Neuroendocrine systems - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Neuroendocrine Cancers including common presenting signs and symptoms signs and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Neuroendocrine Cancers
- the common diagnostic investigations and their role in identifying Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Neuroendocrine Cancers the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease.
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy / classification of Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment

 and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the different hormone excess symptoms / syndromes that may affect patients - identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and biopsychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family.
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurseled clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns Proactive engagement in continuous professional development

Active participant in / chair of MDT : leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/ feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancer Overview - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of:

- the anatomy, physiology and normal functioning of the Endocrine and Neuroendocrine systems - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Neuroendocrine Cancers including common presenting signs and symptoms signs and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Neuroendocrine Cancers the common diagnostic investigations and their role in identifying Neuroendocrine Cancers biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Neuroendocrine Cancers the role of surgery and non-surgical approaches and where these may combine - for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers and/or their treatments
- · the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health
- Can holistically assess an individual and their health related concerns
 Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:
- Recognising the impact of Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team
- Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Neuroendocrine Cancers
- Utilises correct and appropriate terminology and taxonomy classification of Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history, including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the different hormone excess symptoms/syndromes that may affect patients - identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access. Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family.
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert : APC 8+ : Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Carcinoid Syndrome and disease related considerations - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the Respiratory system - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers of the Lungs
- the anatomy and physiology of Neuroendocrine Cancers of the LUNGS - including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread
- indications for genetic testing: understanding the difference between sporadic and inherited disease
- the common presentations of hormonal symptoms and syndromes associated with Neuroendocrine Cancers of the Lungs, e.g. Cushings and Carcinoid syndromes
- the common diagnostic investigations and their role in identifying Neuroendocrine Cancers of the Lungs - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Neuroendocrine Cancers of the Lungs the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease.
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers of the Lungs and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation
- the risks of recurrence and/or progression

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 lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Neuroendocrine Cancer of the Lungs diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Neuroendocrine Cancer of the Lungs, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Neuroendocrine Cancers of the Lungs

- Utilises correct and appropriate terminology and taxonomy / classification of Neuroendocrine Cancers of the Lungs
- •Demonstrates an awareness of the incidence and prevalence of Neuroendocrine Cancers of the Lungs

Proficient : APC level 6-7 : Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

- Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status
- awareness of guidance regarding genetic testing and understands the relationship of genetics and genomics to health, prevention, screening and treatment. Able to gather family history, identify hereditary risk, and make appropriate referrals for genetic consultation and testing - in collaboration with medical team

Recognise the functional and potential hormone excess symptoms/ syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests including physiotherapy assessment and interventions
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Pre-operative assessment and counselling regarding possible functional alterations - e.g.lung capacity and function following surgery
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary tea
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert : APC 8+ : Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurseled clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns Proactive engagement in continuous professional development

Active participant in / chair of MDT : leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication Identifies service development opportunities

and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies
Assesses cost implications and effectiveness

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the LUNG - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the STOMACH
 including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Gastric Neuroendocrine Cancers including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Gastric Neuroendocrine Cancers
- the common diagnostic investigations and their role in identifying Gastric Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Gastric Neuroendocrine Cancers
 the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Gastric Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Gastric Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Gastric Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Gastric Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy classification of Gastric Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Gastric Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the functional and potential hormone excess symptoms/ syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests - including SLT for swallowing concerns
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Pre-operative assessment and counselling regarding possible functional alterations - e.g. Dumping Syndrome following gastrectomy
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family.
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the STOMACH - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the Colon, Rectum and Anus - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of COLORECTAL Neuroendocrine Cancers
- the anatomy and physiology of Colorectal Neuroendocrine Cancers

 including common presenting signs and symptoms signs, grading

 and behaviours and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Colorectal Neuroendocrine Cancers
- the common diagnostic investigations and their role in identifying Colorectal Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Colorectal Neuroendocrine Cancers
 the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease.
- the potential increased risk of nutritional compromise due to Colorectal Neuroendocrine Cancers and/or their treatments\
- · the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions an importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Colorectal Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Colorectal Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Colorectal Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy / classification of Colorectal Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Colorectal Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the functional and potential hormone excess symptoms/ syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Pre-operative assessment and counselling regarding possible functional alterations - e.g. stoma care and output management
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family.
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the COLON & RECTUM - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the APPENDIX

 including common or pre-existing conditions and how these may
 affect or influence the diagnosis and treatment of Neuroendocrine
 Cancers
- the anatomy and physiology of Appendiceal Neuroendocrine Cancers

 including common presenting signs and symptoms signs, grading and behaviours and possible sites of metastatic spread.
- the difference between Appendiceal Neuroendocrine Cancers and Goblet Cell / other adenocarcinomas
- the uncommon presentations of hormonal symptoms and syndromes associated with Appendiceal Neuroendocrine Cancers
- the diagnostic investigations and their role in identifying Appendiceal Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Appendiceal Neuroendocrine Cancers - the role of surgery and non-surgical approaches and where these may combine
- the potential role for further intervention following primary treatment pending histological assessment
- the role, where required, of ongoing surveillance and prehab/ rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Appendiceal Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Appendiceal Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Appendiceal Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy classification of Appendiceal Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Appendical Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Treatment and follow up informed by evidence-based guidelines and clinical assessment including histological and staging findings.
- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Pre-operative assessment and counselling regarding possible implications of further surgical intervention - e.g. right hemicolectomy and, for women, possibility of oophorectomy
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access. Private care and other

Recognise the rare potential hormone excess symptoms/ syndromes that may affect those with Appendiceal Neuroendocrine Cancer -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice
- Provision of symptom management advice and biopsychosocial support - short & long-term - in both early and metastatic disease
- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their Implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the APPENDIX - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the SMALL BOWEL AND MESENTERY - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Small Bowel Neuroendocrine Cancers

 including common presenting signs and symptoms signs, grading
 and behaviours and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Small Bowel Neuroendocrine Cancers
- the common diagnostic investigations and their role in identifying Small Bowel Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Small Bowel Neuroendocrine Cancers - the role of surgery and non-surgical approaches and where these may combine - for both primary and metastatic disease.
- the potential increased risk of nutritional compromise due to Small Bowel Neuroendocrine Cancers and/or their treatments
- · the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Small Bowel Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Small Bowel Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Small Bowel Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy classification of Small Bowel Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Small Bowel Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the functional and potential hormone excess symptoms/ syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- · Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis
- Pre-operative assessment and counselling regarding possible functional alterations e.g. short bowel syndrome
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access. Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family.
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the SMALL BOWEL - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the DUODENUM

 including common or pre-existing conditions and how these may
 affect or influence the diagnosis and treatment of Neuroendocrine
 Cancers
- the anatomy and physiology of Duodenal Neuroendocrine Cancers
 including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with Duodenal Neuroendocrine Cancers
- the common diagnostic investigations and their role in identifying Duodenal Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Duodenal Neuroendocrine Cancers
 the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Duodenal Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Duodenal Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Duodenal Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Duodenal Neuroendocrine Cancers

- Utilises correct and appropriate terminology and taxonomy classification of Duodenal Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Duodenal Neuroendocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam -analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the different symptoms/syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these

- Identify & rationalise appropriate investigations/diagnostic tests - able to differentiate between functioning and nonfunctional Duodenal Neuroendocrine Cancers and discuss/ initiate appropriate interventions
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side effects, longer-term consequences and when to seek advice
- Pre-treatment assessment and counselling regarding potential effects and consequences e.g. Dumping syndrome post surgery

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis and risk of paraneoplastic and cancer related oncological emergencies
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the DUODENUM - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | – Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the PANCREAS including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers e.g. diabetes
- the anatomy and physiology of both functioning and nonfunctioning Pancreatic Neuroendocrine Cancers - including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread
- indications for genetic testing: understanding the difference between sporadic and inherited disease
- the common presentations of hormonal symptoms and syndromes associated with Pancreatic Neuroendocrine Cancers
- related Endocrine Nurse Competencies: Society for Endocrinology Competency Framework for Adult Endocrine Nursing: 2nd edition (2015) Competency 4
- the common diagnostic investigations and their role in identifying Pancreatic Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Neuroendocrine Cancers the role of surgery and non-surgical approaches and where these may combine for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Pancreatic Neuroendocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Pancreatic Neuroendocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team
- Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Pancreatic Neuroendocrine Cancers
- Utilises correct and appropriate terminology and taxonomy / classification of Pancreatic Neuroendocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Pancreatic Neuroendocrine Cancers

Proficient : APC level 6-7 : Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

- Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status
- awareness of guidance regarding genetic testing and understands the relationship of genetics and genomics to health, prevention, screening and treatment. Able to gather family history, identify hereditary risk, and make appropriate referrals for genetic consultation and testing - in collaboration with medical team

Recognise the functional and potentially different hormone excessrelated symptoms/ syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these.

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of SSA's and other targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.
- Pre-treatment assessment and counselling regarding potential effects and consequences e.g. Pancreatic Enzyme Insufficiency Provision of appropriate pre and post treatment advice - responding to concerns and alerts
- Instigate appropriate safeguards for care related to Neuroendocrine specific conditions eg Carcinoid Crisis risk and appropriate prophylaxis and risk of paraneoplastic and cancer related oncological emergencies
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, genetics, dietetics, and other disciplines/agencies

Expert : APC 8+ : Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurseled clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns Proactive engagement in continuous professional development

Active participant in / chair of MDT : leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancers of the PANCREAS - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the ADRENAL GLANDS - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Adrenal based Neuroendocrine and Endocrine Cancers - (Cortex and Medulla) including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread (Adrenocortical Carcinoma OR Pheochromocytomas)
- the common presentations of hormonal symptoms and syndromes associated with Adrenal-based Neuroendocrine and Endocrine Cancers
- the common diagnostic investigations and their role in identifying Adrenal-based Neuroendocrine and Endocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- related Endocrine Nurse Competencies: Society for Endocrinology Competency Framework for Adult Endocrine Nursing: 2nd edition (2015) Competency 2, 4 and 11
- indications for genetic testing: understanding the difference between sporadic and inherited disease
- the treatment modalities used for Adrenal-based Neuroendocrine and Endocrine Cancers - the role of surgery and non-surgical approaches and where these may combine - for both primary and metastatic disease
- the potential increased risk of nutritional compromise
- the role of ongoing surveillance and prehab/rehabilitation
- the risks of recurrence and/or progression & lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

Recognising the impact of Adrenal-based Neuroendocrine and Endocrine Cancer diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy

- Demonstrating an awareness and basic understanding of the implications of Adrenal-based Neuroendocrine and Endocrine Cancer, in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Adrenal-based Neuroendocrine and Endocrine Cancers

- Utilises correct and appropriate terminology and taxonomy / classification of Adrenal-based Neuroendocrine and Endocrine Cancers
- Demonstrates an awareness of the incidence and prevalence of Adrenal-based Neuroendocrine and Endocrine Cancers

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Adrenal-based Neuroendocrine and Endocrine Cancers and competency in ability to

- Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status
- awareness of guidance regarding genetic testing and understands the relationship of genetics and genomics to health, prevention, screening and treatment. Able to gather family history, identify hereditary risk, and make appropriate referrals for genetic consultation and testing - in collaboration with medical team

Recognise the different hormone excess symptoms/syndromes that may affect patients - identifies and can implement appropriate care strategies to treat and manage these

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to Adrenalbased Neuroendocrine and Endocrine specific conditions eg Emergency management of acute adrenal insufficiency (adrenal crisis) in adult patients and pre-operative blockade in functional Pheochromocytoma and risk of paraneoplastic and cancer related oncological emergencies
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, genetics, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/ feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Assesses cost implications and effectiveness of service provision including ability to facilitate access to funding - ability to build business case, grant proposals and treatment funding applications.

NB PHEOCHROMOCYTOMA - includes non-adrenal based disease - PARAGANGLIOMA - collectively known as PPGL.

Neuroendocrine Nurse Competencies - Neuroendocrine & Endocrine Cancers of the ADRENAL GLANDS - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the THYROID GLAND - including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Neuroendocrine Cancer of the Thyroid (Medullary Thyroid Carcinoma {MTC}) - including common presenting signs and symptoms signs, grading and behaviours and likely sites of metastatic spread
- the common presentations of hormonal symptoms and syndromes associated with MTC
- the common diagnostic investigations and their role in identifying Neuroendocrine Cancers - biochemical, endoscopic and radiological work-up and detailed case history
- related Endocrine Nurse Competencies: Society for Endocrinology Competency Framework for Adult Endocrine Nursing: 2nd edition (2015) Competency 4 and 12
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- indications for genetic testing: understanding the difference between sporadic and inherited disease
- the treatment modalities used for MTC the role of surgery and nonsurgical approaches and where these may combine - for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of diagnosis for patients and their quality of life -acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of MTC in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dietician, support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team

Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for MTC

 Utilises correct and appropriate terminology and taxonomy / classification of Neuroendocrine Cancer of the Thyroid Gland (MTC) •Demonstrates an awareness of the incidence and prevalence of Neuroendocrine Cancer of the Thyroid Gland

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancers and competency in ability to:

- Undertake a structured and appropriate history : including clinical, symptom, nutritional & psychosocial assessment and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status
- awareness of guidance regarding genetic testing and understands the relationship of genetics and genomics to health, prevention, screening and treatment. Able to gather family history, identify hereditary risk, and make appropriate referrals for genetic consultation and testing - in collaboration with medical team

Recognise the different hormone excess symptoms/syndromes that may affect patients - identifies and can implement appropriate care strategies to treat and manage these

- Identify & rationalise appropriate investigations/diagnostic
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of targeted therapies to address excess hormone symptoms and tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side effects, longer-term consequences and when to seek advice.

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to MTC and risk of paraneoplastic and cancer related oncological emergencies
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert opinion, counselling, dietetics, and other disciplines/agencies

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare. in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level - education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/ feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancer of the THYROID GLAND - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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Demonstrates an awareness and basic understanding of

- the anatomy, physiology and normal functioning of the SKIN including common or pre-existing conditions and how these may affect or influence the diagnosis and treatment of Neuroendocrine Cancers
- the anatomy and physiology of Neuroendocrine Cancer of the Skin (Merkel Cell Carcinoma {MCC}) - including common presenting signs and symptoms signs, and likely sites of metastatic spread
- the common risk factors and presentating symptoms associated with Neuroendocrine Cancer of the skin
- the common diagnostic investigations and their role in identifying Neuroendocrine Cancer of the Skin - biochemical, and radiological work-up and detailed case history
- the role of Nuclear Medicine in both diagnostic and therapeutic interventions for Neuroendocrine Cancers
- the treatment modalities used for Neuroendocrine Cancer of the Skin - the role of surgery and non-surgical approaches - including immunotherapy - and where these may combine - for both primary and metastatic disease
- the potential increased risk of nutritional compromise due to Neuroendocrine Cancers and/or their treatments
- the role of ongoing surveillance and prehab/rehabilitation care
- the risks of recurrence and/or progression
- lifetime risk of other malignancies and health conditions and importance of national screening programmes in maintaining general health

Can holistically assess an individual and their health related concerns - Is able to explain to patients in simple terms including signs and symptoms, investigations and possible treatment options:

- Recognising the impact of Neuroendocrine Cancer of the Skin diagnosis for patients and their quality of life - acknowledging the psychosocial and physical aspects of living with rare and potentially life-limiting malignancy
- Demonstrating an awareness and basic understanding of the implications of Neuroendocrine Cancer, of the Skin in terms of specialist referral, treatment accessibility and long-term surveillance
- Offering access to further support as needed e.g. dieticians support groups, psychological support, socio-economic services
- Accurately documenting and communicating with members of the multidisciplinary team
- Demonstrates knowledge and understanding of the national and international guidelines, local policies and agreed pathways for Neuroendocrine Cancer of the Skin
- Utilises correct and appropriate terminology and taxonomy classification of Neuroendocrine Cancer of the Skin
- Demonstrates an awareness of the incidence and prevalence of Neuroendocrine Cancer of the Skin

Proficient: APC level 6-7: Degree - Masters

Demonstrates knowledge of Neuroendocrine Cancer of the Skin and competency in ability to:

 Undertake a structured and appropriate history: including clinical, symptom, nutritional & psychosocial assessment – and baseline physical exam - analysing severity and potential impact on other body systems and overall health - including nutritional status

Recognise the symptoms and potential syndromes that may affect patients -identifies and can implement appropriate care strategies to treat and manage these

- Identify & rationalise appropriate investigations/diagnostic tests
- Recognise abnormal test results and instigate remedial steps
- Provide disease specific education to the patient including the longer-term consequences of disease, treatments and surveillance on bio-psychosocial well-being
- Understands the role of targeted therapies and immunotherapy to address tumour control
- Initiate medical therapies and monitor appropriately; advises patient of the potential side-effects, longer-term consequences and when to seek advice
- Assess risk of paraneoplastic and cancer related oncological emergencies in advanced/ metastatic disease

Provision of appropriate pre and post treatment advice - responding to concerns and alerts

- Instigate appropriate safeguards for care related to MCC and treatment
- Discuss the need for further tests, or initiation of changes to treatments /plan of care with the multidisciplinary team
- Understand and explain rationale for ongoing monitoring including modality
- Demonstrate knowledge of clinical trials, criteria and appropriate referral pathways
- Awareness of treatment access routes NHS, Managed Access, Private care and other

Provision of symptom management advice and bio-psychosocial support - short & long-term - in both early and metastatic disease

- Assess and recognise psychosocial concerns: providing support, sign-posting and/or referral as appropriate for patient & family
- Identify the need for and instigate additional clinical and professional support, such as referral for expert

Expert: APC 8+: Masters level and above

Demonstrates a comprehensive, expert knowledge & proficiency

Undertakes a comprehensive holistic assessment using evidence-based frameworks - including advanced history taking and prescribing

Integrates advanced knowledge of the disease process from diagnosis to treatment and aftercare, in formulating and evaluating a comprehensive coordinated plan of care with agreed identified outcome indicators

Develops autonomous advanced practice integrating nursing and delegated medical interventions as appropriate: including nurse-led clinics and nurse prescribing - advising, prescribing and/or requesting therapeutic interventions

Educates others using an advanced expert knowledge base and clinical experience in managing highly complex patient care concerns

Proactive engagement in continuous professional development

Active participant in / chair of MDT: leading discussion on complex patients and their management.

Develops advanced practice through leadership and consultancy

Acts as a resource for Neuroendocrine Cancer at local and regional level – education and research role through teaching and/or publication

Identifies service development opportunities and devises strategies to explore/implement them - promoting a culture of quality care

Engagement with horizon scanning for future developments and their implications for practice and care delivery

Proactive engagement with audits and research, including, where applicable, local and national treatment appraisals, patient experience surveys/feedback and pathway analysis.

Takes responsibility for integration of, and contribution to, national and local policies

Neuroendocrine Nurse Competencies - Neuroendocrine Cancer of the SKIN - Assessment form

| Objective | Evidence / discussion | Level of achievement | Further comments incl identified ongoing learning requirements | Appraiser signature & date | Appraisee signature & date |
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- 4 Genus et al (2019) Impact of neuroendocrine morphology on cancer outcomes and stage at diagnosis: a UK nationwide cohort study 2013–2015. Br J Cancer 121, 966–972
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 https://www.quality-health.co.uk/ resources/surveys/national-cancer-experience-survey/2013-national-cancer-patient-exerience-survey/2013-national-cancer-patient-experience-survey-programme-national-report/file (Accessed August 2020).
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- NHS England . National Cancer Patient Experience Survey 2017. http://www.ncpes.co.uk/reports/2017-reports/national-reports-2/3579-cpes-2017-national-report/file (Accessed August 2020).
- Leyden et al (2020) Unmet needs in the international neuroendocrine tumor (NET) community: Assessment of major gaps from the perspective of patients, patient advocates and NET health care professionals. Int J Cancer; 146 (5): 1316–1323.
- Davies PA, Falkerby JB, Geilvoet WC, Fernandez Ortega M PD, Mordel KE, Munk Plum LF, Sanchez CD, Bouvier CG (2017) Pilot electronic survey to assess education needs for Nurses in NETs throughout Europe. Neuroendocrinology 105 (suppl 1)
- Davies P, Falkerby J, Geilvoet W. (2018) Current educational strategies used by nurses caring for NET patients: Electronic survey across 25 countries. Neuroendocrinology 106

Extended bibliography and further reference reading

- European Neuroendocrine Tumour Society (ENET) Guidelines https://www.enets.org/enets_guidelines.html
- ESMO Guidelines : https://www.esmo.org/guidelines?hit=ehp
- Kieffer et al Society for Endocrinology Competency Framework for Adult Endocrine Nursing: 2nd edition Endocrine Connections (2015) 4, W1–W17
- ESE Guidelines : https://www.ese-hormones.org/publications/guidelines/
- Owens and Keller (2018) Exploring workforce confidence and patient experiences: A quantitative analysis Patient Experience Journal Volume 5, Issue 1, pp. 97-105
- Macmillan Competency Framework for Nurses
- NMC Code of conduct https://www.nmc.org.uk/standards/code/
- NMC Standards for competence for registered nurses https://www.nmc.org.uk/globalassets/sitedocuments/standards/nmc-standards-for-competence-for-registered-nurses.pdf
- RCN Advanced level Nursing Practice : Introduction
- RCN principles of Nursing Practice https://www.rcn.org.uk/professional-development/principles-of-nursing-practice
- RCN Advanced level Nursing Practice Section 2 : Advanced level nursing competencies (PDF)
- RCN Career and Education Framework for Cancer Nursing
- UK and Ireland Neuroendocrine Tumour Society (UKINET) Bitesize Guidance https://www.ukinets.org/net-clinics-clinical-practice/

Further reading and resources

- NEUROENDOCRINE CANCER UK: www.neuroendocrinecancer.org.uk
- AMEND (Association for Multiple Endocrine Neoplasia Disorders): https://www.amend.org.uk
- ACC Support UK (Adrenocorticol Carcinoma) : https://accsupport.org.uk
- INCA (International Neuroendocrine Cancer Alliance): https://incalliance.org
- UKINETs (UK & Ireland Neuroendocrine Tumour Society): https://www.ukinets.org
- ENETs (European Neuroendocrine Tumour Society): https://www.enets.org
- SfE (Society for Endocrinology): https://www.endocrinology.org
- ECE/ESE (European Society of Endocrinology): https://www.ese-hormones.org
- NMC(Nursing & Midwifery Council):https://www.nmc.org.uk
- RCN (Royal College of Nursing):https://www.rcn.org.uk
- UKONS (UK Oncology Nursing Society) :https://www.ukons.org
- ESMO (European Society for Medical Oncology) :https://www.esmo.org

Appendix 1: Reflective Practice Form -

NMC Revalidation Document Templates: http://revalidation.nmc.org.uk/download-resources/forms-and-templates.html

| Reflective Account |
|--|
| What was the nature of the activity / event / experience? e.g. practice-related, education, |
| |
| |
| What did you learn from this activity / event / experience? |
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| |
| Has this activity / event / experience impacted on your practice? |
| |
| Even if your answer above was no - how has this activity/ event /experience impacted on your practice ? e.g. reconfirmed existing knowledge/skills /level of practice or added / |
| improved / expanded existing knowledge/skills /level of practice |
| |
| |
| |
| If you would like to use this account for revalidation - please also record how this activity / event / experience is relevant to the NMC Code e.g. Prioritise people - Practice effectively - |
| etc |
| |
| |
| Name : |
| Signature : |
| 30 |
| Date : |

Leave blank for notes



Neuroendocrine Cancer UK
www.neuroendocrinecancer.org.uk
www.ncukacademy.org.uk
01926 883 487
hello@nc-uk.org