Health Education England

Evidence Brief: Cancer

Contents

Produced by the HEE Knowledge Management team Evidence Briefs offer a quick overview of the published reports, research, and evidence on a workforce-related topic.

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- Complete Evidence Brief list – link for HEE staff
- Complete Evidence Brief list – link for External staff

Key publications – the big picture

Lung Cancer Getting It Right First Time report Free log in on the NHS Futures Platform required to view
Source: Getting It Right First Time (GIRFT)
Publication date: April 2022
See p. 66 Effective multidisciplinary working
A new diagnosis of lung cancer affects nearly 50,000 people per year in the UK and lung cancer is the largest contributor to cancer-related death in both men and women, responsible for 35,000 deaths per year. Outcomes for lung cancer in the UK lag behind those for many comparable countries.
Sadly, many people have symptoms for some time before seeking medical attention despite numerous public campaigns to raise awareness of the early features of the disease. Furthermore, the symptoms of lung cancer are non-specific and very common in many people without the disease. This leads to the challenging situation of the majority of newly diagnosed cases being diagnosed at an advanced stage of disease. The armamentarium of treatment options has expanded considerably over the last ten years and continues to do so, which opens up options for treatment which can impact on survival even for advanced disease. The imperative to reach a diagnosis and subsequent treatment cannot be underplayed, both in improving survival but also the quality of life and symptom burden for those living with lung cancer. There is much evidence to demonstrate better outcomes from reaching a diagnosis and subsequent treatment rapidly. This led to the development of the National Optimal Lung Cancer Pathway (NOLCP) with key targets of 28 days to communication to the patient of their diagnosis and 49 days to commencement of the first treatment from the point of an abnormal chest X-ray report or urgent referral. However, there remain obstacles to achieving the goal of a faster diagnosis and earlier treatment in access and service configuration in primary, secondary and tertiary care.

Cancer services
Source: House of Commons and Health and Social Care Committee
Publication date: March 2022
See p. 29 Workforce
In a highly critical report on cancer services in England, MPs raise the alarm on the damaging and continuing impact of the pandemic and warn of a real risk that gains in cancer survival will reverse. Evidence provided to the Committee by the Government and the NHS demonstrates that the NHS was not on track to meet its target on early cancer diagnosis. Without progress, that would mean more than 340,000 people between 2019 and 2028 missing out on an early cancer diagnosis.

Radiotherapy Radiographic Workforce 2021 UK Census
Source: The College of Radiographers
Publication date: 2022
We, the College of Radiographers (CoR), carried out a census of the radiotherapy radiographic workforce in the UK as of the census date 1 November 2021. The census was targeted at radiotherapy providers in England, Northern Ireland, Scotland and Wales in the NHS and other healthcare sectors. The objectives were to establish the size, structure, nature and vacancy rate of the workforce. This document presents an analysis of the results and compares them with similar surveys carried out annually from 2012 to 2020 (see references).

Diagnostics radiographer workforce 2021 UK Census
Source: The College of Radiographers
Publication date: 2022

Each year the Society and College of Radiographers (SoR, CoR) undertakes a UK-wide diagnostic radiography workforce census to gain intelligence about the clinical imaging radiography workforce. The census collection was taken at a time during which services were reporting significant pressures and we would like to express our sincere thanks to those services who submitted their data. As the spotlight on imaging and in particular the whole imaging workforce continues throughout the four nations of the United Kingdom this year's data collection includes data regarding the support workforce.

Cancer nursing on the line: why we need urgent investment across the UK
Source: Macmillan Cancer Support
Publication date: September 2021
UK cancer services are slowly recovering from the devastating blow caused by Covid-19. The pandemic has both laid bare and exacerbated the terrible strain the cancer workforce has been under for many years. When the pandemic hit, some services were forced to pause, whilst others had to quickly adapt and many have still not 'returned to normal'. Some cancer nurses were also deployed to care around the clock for the half a million people admitted to hospital with coronavirusi . The practical and emotional impact of this disruption on people living with cancer has been profound. Macmillan's new research establishes that cancer nurses are being stretched too thinly, trying to be there at our time of greatest need, and coping with the physical and emotional toll of the pandemic. Cancer and the devastating impact it has on lives should not be forgotten, and neither should our nurses and NHS. Our nurses have been there for us. Now we must be there for them.

Building back cancer services in England
Author(s): Patel and Thomas
Source: Institute for Public Policy Research
Publication date: September 2021
See p. 10 "Capacity to recover"
The pandemic has severely disrupted cancer services in England. While Covid-19 might not have caused our health service to 'collapse' rapidly, it has forced us to take previously unthinkable steps like cancelling cancer treatments. There have been widespread disruptions across the cancer care pathway – screening, referrals, diagnostic and treatment services have all seen reductions in activity. Unmitigated, the consequences will be severe. Delays in cancer referrals during the first wave of the pandemic are estimated to have undone two, six and eight years of improvements in five-year survival rates from lung, breast and colorectal cancer (Patel, Thomas and Quilter-Pinner 2021).

Cancer services in the UK: restarting the cancer pathway
Source: Public Policy Projects
Publication date: January 2021
See p. 16 "Investing in the cancer workforce"
One in two of us will be diagnosed with cancer in our lifetimes2. It is the disease of which we are most afraid3 and the one which attracts the greatest amount of public donations into research4. Despite this, and even prior to the Covid-19 pandemic, UK cancer services were struggling to meet demand; with delays in treatment and diagnosis5, workforce shortages6, and, of greatest concern, patient outcomes which lag behind those of comparable European countries7.

Clinical oncology census report 2021
Source: The Royal College of Radiologists
Publication date: 2021
For over 10 years, the Royal College of Radiologists (RCR) has collected key clinical oncologist workforce data and insight from cancer centre heads of service, the clinical leads in the 60 cancer centres, across the UK. This is used to identify trends,

issues and make evidence-based recommendations to improve patient care. With a 100% response rate, this year's data reflects the workforce as it stood on 1 October 2021.

Clinical radiology census report 2021
Source: The Royal College of Radiologists
Publication date: 2021
For over 10 years, the Royal College of Radiologists (RCR) has collected key clinical radiologist workforce data from clinical directors across the UK to identify trends, issues and make evidence-based recommendations. With a 100% response rate, this year's data reflects the workforce as it actually stood on 1 September 2021.

Radiotherapy Radiographic Workforce UK Census 2020
Source: The Society of Radiographers
Publication date: 2021
This document presents an analysis of the census results and compares them to similar censuses carried out annually from 2010 to 2019.

Clinical radiology UK workforce census 2020 report
Source: The Royal College of Radiologists
Publication date: 2021
Produced yearly, The Royal College of Radiologists' (RCR) census provides robust data on the state of the clinical radiology consultant workforce in the UK. The findings are essential reading for local and national workforce planners and are the cornerstone of RCR policy.

Diagnostics Radiography Workforce UK Census 2020
Source: The College of Radiographers
Publication date: 2021
Each year the Society and College of Radiographers undertakes a UK-wide diagnostic radiography workforce census to gain intelligence about the clinical imaging radiography workforce. The census collection was taken at a time during the COVID-19 pandemic when imaging services were making inroads into the significant number of imaging referrals that had built up during the first wave of the pandemic and were also faced with the knowledge of a forthcoming second surge.

Cancer services recovery plan
Source: NHS England
Publication date: December 2020
The coronavirus pandemic has presented major challenges for all healthcare systems. At the start of the pandemic, this resulted in some people facing longer waits for diagnosis, some treatments being delivered in different ways or being interrupted or stopped on the grounds of clinical safety, and some follow-up care being disrupted. One of the most significant impacts was a sharp reduction in the number of people coming forward and being referred urgently with suspected cancer and referred from screening programmes.

Estimating the cost of growing the NHS cancer workforce in England by 2029
Source: Cancer Research UK
Publication date: October 2020
Over the last 50 years, the UK has made significant progress in improving survival outcomes for people diagnosed with cancer. In the 1970s, only 1 in 4 cancer patients would survive their disease for ten years or more. By 2010, this had risen to 2 in 4, and survival outcomes continue to improve.1 There are several drivers for this, from the introduction of screening programmes and innovative treatments to ongoing improvements to health care pathways – all of which has been underpinned by the continued and tireless efforts of staff from across the NHS.
See also supplementary information pack

Acute oncology: Increasing engagement and visibility in acute care settings
Source: Royal College of Physicians
Publication date: October 2020
AO is an evolving area of specialist practice that has developed in different ways and at different paces in different regions over the past decade. The current curriculum revisions in both clinical and medical oncology place AO competence as a high-level outcome. Development of AOS requires a coherent approach to defining the purpose and breadth of the services, formal training of the workforce to lead and deliver them and investment to ensure comprehensive UK coverage.

Addressing the gap
Source: Macmillan Cancer Research
Publication date: September 2020
Macmillan's most recent workforce census1 demonstrated that there are worrying vacancy rates across specialist cancer nurse roles in England,* with significant geographic variation. Subsequent patient and workforce reported data still demonstrates unmet need amongst people living with cancer.2, 3 The causes and impact of the crisis in the NHS workforce are multifaceted and go beyond the scope of this paper. However, the specialist cancer nurse vacancy rates and the solutions to address them must be understood within the context of a wider crisis in the general nursing population and the increasing pressures on the NHS caused by rising patient need - with the Covid-19 pandemic throwing into sharp focus the fragility of our workforce.**

Delivering the early diagnosis of cancer PCN specification: Getting started and learning from others
Source: Cancer Research UK & NHS Confederation PCN Network
Publication date: September 2020
The NHS Long Term Plan's ambition for early cancer diagnosis is that by 2028, the proportion of cancers diagnosed at stages 1 and 2 will rise from around half now to three-quarters of cancer patients. Achieving this will mean that from 2028, 55,000 more people each year will survive their cancer for at least five years after diagnosis. For 2020/21, both the (revised) quality and outcomes framework (QOF) quality improvement (QI) indicators on the early diagnosis of cancer and the early cancer diagnosis primary care network specification recognise the pivotal role that GPs play in diagnosing cancer earlier, and focus on similar areas.

Clinical oncology: UK workforce census report 2019
Source: Royal College of Radiologists
Publication date: June 2020
The clinical oncology UK workforce census report provides a unique profile of the clinical oncology workforce in the UK. This years' figures highlight the ongoing workforce shortages, particularly at consultant grade, and indicate that there are insufficient UK trainees to fill vacancies.

Early detection and diagnosis of cancer: A roadmap to the future
Source: Cancer Research UK
Publication date: 2020
The roadmap identifies major challenges and proposes addressing them through funding new research and technology innovation, investing in platforms and data access to support such research, developing new models of healthcare and engaging the public and patients meaningfully in designing the solutions.

Radiotherapy Radiographic Workforce UK Census 2019
Source: The College of Radiographers
Publication date: 2020

The College of Radiographers (CoR) carried out a census of the radiotherapy radiographic workforce in the UK as of the census date 1 November 2019. The objectives were to establish the size, structure, nature and vacancy rate of the workforce. This document presents an analysis of the results and compares them to similar surveys carried out annually from 2010 to 2018.

Clinical radiology UK workforce census 2019 report
Source: Royal College of Radiologists
Publication date: April 2020
The Royal College of Radiologists' (RCR) annual radiologist workforce report highlights the UK's current and predicted future shortage of imaging doctors and urgently calls for more funding for trainees and better NHS retention and recruitment.

Diagnostic Radiography Workforce UK Census 2019
Source: The Society of Radiographers
Publication date: May 2020
This report presents an analysis of an online census of the diagnostic radiography workforce in the UK run by the CoR in November and December 2019. Respondents were asked about the size and nature of their diagnostic radiography workforce. The results of this census will inform the work of professional bodies, workforce planners and commissioners/providers of radiography education.

Voices from the frontline: Challenges facing cancer clinical nurse specialists right now
Source: Macmillan Cancer Support
Publication date: September 2019
The NHS nursing workforce is at breaking point, with vacancies reaching 40,0002 and near intolerable pressure being placed on many professionals. The causes of this crisis are multifaceted, and so too must the response be. Whilst there is no single silver bullet which can reverse current trends and much more needs to be done to grow the workforce, we also need to do more to support and retain existing nursing staff. We know too that lack of development and learning support is a commonly cited reason for nurses leaving the profession. Ensuring that nurses are up to date and able to deliver the best possible care is also fundamental to patient safety and quality of life. For these reasons, we believe prioritising CPD is critical in creating a fit-for-purpose NHS workforce.

Progress update: Update on Phase 1 of the Cancer Workforce Plan
Source: Health Education England
Publication date: August 2019
Phase 1 of the Cancer Workforce Plan was clearly defined with a focus on seven key professions within the wider cancer workforce. This paper details progress towards ambitions described by the Cancer Workforce Plan (Phase 1 to 2021)

Exploring the role of allied health professionals in the care of people affected by cancer: the Patient and Practitioner Voices project
Source: Health Education England
Publication date: June 2019
The project was triggered by Recommendation 70 of Achieving World Class Cancer Outcomes: a strategy for England 2015 – 2020: that HEE supports a national review of the cancer rehabilitation workforce and promotes the role of AHPs in multidisciplinary teams (NHS England, 2016). As our starting point we took existing work that showcased and promoted the role of AHPs and supported the development of AHP competencies in cancer care. This project report presents further work undertaken by Health Education England (HEE) to explore the roles of AHPs that provide care within multidisciplinary cancer care teams and to explore the

experiences of people affected by cancer who have received care from AHPs.

The NHS Long Term Plan
Source: NHS
Publication date: January 2019
The NHS Long Term Plan was developed in partnership with those who know the NHS best – frontline health and care staff, patients and their families and other experts.
Cancer is a key area of work
Securing a cancer workforce for the best outcomes: The future demand for cancer workforce in England
Source: Cancer Research UK
Publication date: November 2018
This report explores how predicted changes in services would impact on the need for staff in the future. They largely reflect technology and innovation, with some service model changes also considered. They do not reflect all the potential changes in the health service, but capture those which were considered to have the most significant impact on cancer services.

Unfinished business: an assessment of the national approach to improving cancer services in England 1995-2015
Source: Health Foundation
Publication date: November 2018
This report looks at progress in cancer care over two decades. It finds that progress has been made on reducing mortality, and improving the chances of survival and the experience of care, for people in England diagnosed with cancer. See section 4.6 “Workforce and the professional bodies”.

Meeting pathology demand: histopathology workforce census
Source: Royal College of Pathologists
Publication date: September 2018
The report highlights the intense pressures that histopathologists face from increased workloads, such as new NHS screening programmes. In addition, services are facing more complex work as personalised medicine develops and guides new therapies. Outdated IT systems compound these pressures.

Strategic Framework for Cancer Workforce: Interim working paper
Source: Health Education England
Publication date: July 2018
In December 2017, HEE published phase 1 of the Cancer Workforce strategy, focussing on the short-term actions required to deliver funded commitments by 2021. We promised phase 2 would follow, focussing on the longer-term workforce needs beyond 2021, based on forecast patient demand. This work began with partners in January 2018. • On 11 June 2018, Prime Minister Theresa May announced a new five-year settlement for the NHS, giving the service real-terms growth averaging 3.4% per year. The funding was for the NHS England commissioning Budget only and did not include capital, public health, workforce or social care. • In July 2018, the NHS was tasked with developing a 10-year plan, (which later became the Long Term Plan, covering a five-year period) setting out how the service intends to deliver major improvements in key areas including transforming cancer care, to be followed by a multi-year workforce plan (which subsequently became The People Plan).

Cancer Research UK workshop on AI and the diagnostic workforce
Source: Cancer Research UK
Publication date: June 2018
It is important that this workforce plan takes into account the future impact of new technology such as AI, which has the

potential to be used in clinical pathways - including those involved in cancer diagnosis. It is often assumed that AI could streamline or improve certain aspects of the diagnostic process, helping to alleviate pressures associated with staff shortages and freeing up valuable time for staff to focus on other activities, including patient care, service improvement and research. We wanted to explore whether this assertion was true, how far away from current practice it was, and what the implications were for workforce planning.

Cancer Workforce in England: a census of cancer, palliative and chemotherapy speciality nurses and support workers in England in 2017
Source: Macmillan Cancer Support
Publication date: April 2018
Findings of its census of specialist cancer nurses and support workers, the first in depth investigation into the cancer nursing and support workforce in England since 2014.

Full team ahead: understanding the UK non-surgical cancer treatments workforce
Author(s): Burns et al.
Source: Institute for Employment Studies
Publication date: December 2017
This report published by Cancer Research UK presents the findings from research undertaken by IES in partnership with 2020 Delivery into the UK's non-surgical oncology workforce. The research identified the current and future needs, capacity and skills of this workforce to provide optimal treatment to the UK population.

Cancer workforce plan – Phase 1 – Delivering the cancer strategy to 2021
Source: Health Education England
Publication date: December 2017
Health Education England (HEE) has produced a comprehensive cancer workforce plan that sets out how it will make sure the NHS has enough staff with the right skills to deliver improvements for people affected by cancer over the next three years.

From the frontline: workforce pressures in the NHS
Source: Macmillan Cancer Support
Publication date: September 2017
Current workforce pressures are affecting the level of care being delivered to cancer patients, according to a new report From the Frontline by Macmillan Cancer Support. A survey undertaken by nfpSynergy for Macmillan of over 250 GPs and nurses working in primary care across the UK, found that over half (52%) are not confident the NHS workforce is able to provide adequate care to cancer patients, given the current pressures it faces.

The General Practice Nursing Workforce Development Plan
Source: Health Education England
Publication date: March 2017
This report promotes the importance of general practice nursing, as well as providing details of potential workforce issues and provides appropriate recommendations. It sets out clear recommendations to improve the recruitment, retention and return of the general practice nursing workforce.

Thinking Differently: Macmillan's vision for the future cancer workforce in England
Source: Macmillan Cancer Support
Publication date: February 2017
In setting out our vision, this report examines the current challenges facing the cancer workforce. These include gaps in key roles such as Clinical Nurse Specialists (CNSs), inefficient use of specialist skills, and poor coordination and

communication leading to lack of support both for recovery and at end of life.

Fit for the Future – Public Health People: a review of the public health workforce
Source: Public Health England
Publication date: May 2016
This review outlines 5 important themes that underpin the response to developing a workforce for 2021 and provides a clear pathway and plan to achieve the 'new' workforce.

The specialist nursing workforce caring for men with prostate cancer in the UK: research report 2014
Source: Prostate Cancer UK
Publication date: 2014
Prostate cancer is the most common cancer in men in the UK accounting for 25% of all new cases of cancer. It is predicted to become the most common cancer overall by 2030. This survey of the specialist nursing workforce caring for men with prostate cancer was completed across the four countries of the UK during June and July 2014. In total 302 specialist nurses completed the survey and data from 285 was used in the analysis. This is the biggest whole population survey of this workforce in recent years.

Case Studies

Inter-provider Greater Manchester Cancer Surgical Hub at Rochdale Infirmary Free registration for NHS Futures Platform required*
Source: Future NHS Platform
Publication date: 2021
The aim was to establish an inter-provider service which could manage the prioritisation of referrals, scheduling surgery in a COVID-19 secure site. Rochdale hospital, a 'cold-site', was mobilised to enable teams to treat cancer patients from across GM, making it available to multiple teams. Work moved at pace, with discussions starting in March 2020 and the implementation starting in April. Patient and staff experience was very positively reported, with 1487 patients treated in May and June 2020 alone, excellent for a site which had previously been under-utilised.

Development of a Rapid Diagnostic Centre Service and Community Diagnostics Hub Free registration for NHS Futures Platform required*
Source: Future NHS Platform
Publication date: 2021
This case study builds upon the beneficial changes narrative submitted by the Rapid Diagnostic Centre (RDC) team during the covid-19 pandemic, the patient flow network (part of the national beneficial changes programme) recognised the significant progress and improvements made by the team and requested a detailed case study be shared.

West Yorkshire and Harrogate Cancer Alliance: tackling lung cancer
Source: NHS Long Term Plan
Publication date: 2019
The Cancer Alliance is taking a whole system approach to Tackle Lung Cancer in areas with the lowest lung cancer survival rates and highest smoking prevalence.

Diagnosing lung cancer earlier in Manchester
Source: NHS Long Term Plan
Publication date: 2019
A pilot, offering smokers and ex-smokers free health checks and on-the-spot scans, has quadrupled the number of lung cancers diagnosed at an early stage. The approach targets lung

cancer testing at populations who are most at risk, using mobile scanners and teams in everyday places such as supermarket car parks.

Supporting people to live well with and beyond breast cancer
Source: NHS Long Term Plan
Publication date: 2019
University Hospitals Plymouth NHS Trust work with a range of agencies to provide personalised follow-up care that aims to reduce the impact of cancer and its treatment on people's health and wellbeing. Felicity Farah, describes how this support has helped her following her diagnosis of breast cancer in March 2018.

HEE Star

More resources and tools are available in the **Cancer** section of the HEE Star

Statistics

You can find relevant statistics on the Health and Care Statistics Landscape under **"Health and Care"** and use the **"Cancer"** filter

HEE National Data Programme

HEE staff can look at the National Data Warehouse (NDL) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Advanced Practice

The role of the advanced clinical practitioner in breast diagnosis: A systematic review of the literature Abstract only*
Item Type: Journal Article
Authors: Spacey, A.;Hipperson, V.;Gloster, A. and Mercer, C.
Publication Date: 2021
Journal: Radiography (London) 27(2), pp. 654-662
Introduction: Increasing prevalence in breast cancers, workforce shortages and technological advancements have increased the need to further develop advanced practice in breast diagnosis. The Advanced Clinical Practitioner training programme has been introduced to support this need. The aim of this work was to systematically review studies that explore advanced practice in mammography to assess the potential impact of the introduction of a specific Advanced Clinical Practitioner training programme in breast diagnosis within the UK. Methods: A systematic PRISMA review of the literature published between 1999 and January 2020 was carried out. A total of 17 studies were included in the review. Results: Four themes were identified in the literature in relation to advanced practice in breast imaging: multidisciplinary practice; roles and responsibilities associated with advanced practice; development and progression; embedding and sustaining advanced practice. It was evident across all themes that advanced practice is vital in supporting better care for patients attending breast imaging in light of workforce shortages. Although advanced practice and its benefits are well established in breast imaging, persistent barriers were acknowledged such as role ambiguity, recruitment issues, lack of support from some radiologists and poor funding. Conclusion: Findings suggest that introducing a more

formalised pathway to advanced practice into breast imaging through the implementation of a specific Advanced Clinical Practitioner apprenticeship training programme may overcome many of the challenges evidenced in this review.
Implications for practice: The findings of this review will help inform the development of the Advanced Clinical Practitioner apprenticeship programme specific to breast diagnosis.

Acceptance of the Advanced Practice Nurse in Lung Cancer Role by Healthcare Professionals and Patients: A Qualitative Exploration Full text available with NHS OpenAthens account*
Author(s):Serena et al.
Source: Journal of Nursing Scholarship
Publication date: September 2018
The purpose of this study was to explore the acceptance of a novel role, the advanced practice nurse in lung cancer (APNLC), from the perspective of patients and healthcare professionals in a country lacking a regulatory oversight for advanced practice nursing (APN) roles. The new role appears to be well accepted by patients and physicians, yet barriers posed by nursing colleagues remain challenging.

Role of advanced nurse practitioners in the care pathway for children diagnosed with leukemia
Author(s): Bovero et al.
Source: European Journal of Oncology Nursing
Publication date: October 2018
Purpose The development of advanced nursing practices (ANP) can meet challenges presented by evolving needs of health care. We aimed at describing the approach taken to implement ANP in a pediatric oncology-hematology unit. Conclusion The impact of the implementation can be appreciated at different levels: i) the patient and his or her family, with improvement of communication and continuity of care; ii) the interdisciplinary team, with development of a dynamic and greater motivation of the health care providers; and iii) the profession, with a greater recognition of the competencies and conceptualization of the new role. An assessment of the process, the structure and the results should be carried out to validate the role of the advanced nurse practitioner throughout the long journey of a child with leukemia.

Barriers

Oncology nursing workforce: challenges, solutions and future strategies Abstract only*
Author(s): Challinor et al.
Source: The Lancet Oncology 21(12)
Publication date: December 2020
The global oncology nursing workforce is essential to achieving Sustainable Development Goals 3.4 (reduce non-communicable disease morbidity by a third by 2030) and 3.8 (universal health coverage). Unfortunately, challenges to a robust oncology nursing workforce include nursing shortages, recruitment barriers (eg, perceptions of a demanding specialty with complex care and hazardous work environments), and burnout. Innovative recruitment strategies, onboarding and continuing education programmes, occupational safety measures, and burnout prevention interventions are documented solutions. The long-term effect of COVID-19 on oncology care worldwide is unknown, but immediate therapy interruptions, workforce consequences, and threats to standard oncology nursing practice are addressed here. Retention of experienced oncology nurses is crucial for future cancer control in all countries and must be addressed, particularly in resource-constrained countries with few oncology nursing staff and continuing out-migration of nurses to resource-rich countries. As the cancer burden worldwide increases, the future of the oncology nursing workforce is reflected in the call from the International Council of Nurses, Nursing Now, and WHO for

nurses to move to higher levels of leadership, advocacy, and policy making (ie, national cancer control planning) and assume responsibility for their key role in achieving global goals for cancer control.

Barriers and facilitators to community-based psycho-oncology services: A qualitative study of health professionals' attitudes to the feasibility and acceptability of a shared care model
Author(s): Vaccaro et al.
Source: Psycho-oncology 28(9)
Publication date: September 2019
Psychological therapies combined with medication are effective treatments for depression and anxiety in patients with cancer. However, the psycho-oncology workforce is insufficient to meet patient need and is hard to access outside of the major cities. To bridge this gap, innovative models of care are required. This in-depth exploration of Australian health professionals' perceptions of the feasibility and acceptability of a community-based model of psycho-oncology care revealed that most clinicians were willing to adopt the proposed changes into practice. An RCT of a shared care intervention for depressed patients with cancer is needed.

Barriers to delivering advanced cancer nursing: A workload analysis of specialist nurse practice linked to the English National Lung Cancer Audit
Author(s): Stewart et al.
Source: European Journal of Oncology Nursing 36: 103-111
Publication date: October 2018
Health services across the world utilise advanced practice in cancer care. In the UK, lung cancer nurse specialists (LCNS) are recognised as key components of quality care in national guidelines, yet access to LCNS contact is unequal and some responsibilities are reportedly left undone. We assess whether any variation in working practices of LCNS is attributable to factors of the lung cancer service at the hospital trust. Conclusion Working practices of LCNS vary according to service factors, most frequently associated with trust anti-cancer treatment facilities. High workload pressures and limited ability to provide key interventions should be addressed across all services to ensure patients have access to recommended standards of care.

Covid-19

Impact of Covid-19 on lung cancer and mesothelioma specialist nurses: A survey of experiences and perceptions.
Item Type: Journal Article
Authors: Hargreaves, Sarah;Clayton, Karen;Creech, Lorraine;Darlison, Liz;Ejegi-Memeh, Stephanie;Fenemore, Jackie;Gardiner, Clare;Taylor, Bethany and Tod, Angela
Publication Date: Dec ,2022
Journal: European Journal of Oncology Nursing 61, pp. 102207
Purpose: The covid-19 global pandemic has impacted on nurses who have rapidly adapted to new ways of working, and experienced negative impacts due to over-stretched services. Two surveys captured the experiences of lung cancer and mesothelioma specialist nurses in the United Kingdom (UK) in 2020, but the impact of later stages of the pandemic was unknown. This study aimed to explore the impact of covid-19 on lung Cancer and mesothelioma nurses since January 2021, the second wave of the pandemic. Methods: An online cross-sectional survey with both open and closed questions explored the impact of covid-19 on ways of working and workload, quality of care, and health and wellbeing. The survey was open to UK based lung cancer and mesothelioma advanced or specialist nurses. Results: 85 nurses responded to the survey. The majority were Clinical Nurse Specialists, based in England. Respondents reported changes in ways of working due to redeployment, staff shortages, and home working. Widespread

adoption of virtual working practices led to concerns of negative impacts. Perceived excessive workload impacted on care with two-thirds of the sample (57, 67%) reporting they had been unable to provide the same quality of care to patients. Impacts on nurses' health and wellbeing were reported with two-thirds of the sample (56, 66%) reporting a deterioration in emotional wellbeing and mental health. Coping mechanisms employed included online team support to share experiences and increased uptake of exercise; however, impacts on lifestyle and access to coping mechanisms varied. Conclusion: Nurses have stepped up to the challenges of the pandemic with teamwork and innovation, but pressure arising from the pandemic and high workloads led to negative impacts on wellbeing. The authors have provided recommendations to improve patient care and support the wellbeing of nurses, which will be key to a resilient workforce living with covid-19. Whilst this study focussed on lung cancer and mesothelioma specialists, the findings have wider implications for other cancer specialties.

The impact of COVID-19 on oncology professionals-one year on: lessons learned from the ESMO Resilience Task Force survey series.
Item Type: Journal Article
Authors: Lim, K. H. J.;Murali, K.;Thorne, E.;Punie, K.;Kamposioras, K.;Oing, C.;O'Connor, M.;Elez, E.;Amaral, T.;Garrido, P.;Lambertini, M.;Devnani, B.;Westphalen, C. B.;Morgan, G.;Haanen, J. B. A. G.;Hardy, C. and Banerjee, S.
Publication Date: 2022
Journal: Esmo Open 7(1), pp. 100374
Background: COVID-19 has had a significant impact on the well-being and job performance of oncology professionals globally. The European Society for Medical Oncology (ESMO) Resilience Task Force collaboration set out to investigate and monitor well-being since COVID-19 in relation to work, lifestyle and support factors in oncology professionals 1 year on since the start of the pandemic.
Methods: An online, anonymous survey was conducted in February/March 2021 (Survey III). Key outcome variables included risk of poor well-being or distress (expanded Well-Being Index), feeling burnout (single item from expanded Well-Being Index), and job performance since COVID-19. Longitudinal analysis of responses to the series of three surveys since COVID-19 was carried out, and responses to job demands and resources questions were interrogated. SPSS V.26.0/V.27.0 and GraphPad Prism V9.0 were used for statistical analyses. Results: Responses from 1269 participants from 104 countries were analysed in Survey III: 55% (n = 699/1269) female, 54% (n = 686/1269) >40 years, and 69% (n = 852/1230) of white ethnicity. There continues to be an increased risk of poor well-being or distress (n = 464/1169, 40%) and feeling burnout (n = 660/1169, 57%) compared with Survey I (25% and 38% respectively, P < 0.0001), despite improved job performance. Compared with the initial period of the pandemic, more participants report feeling overwhelmed with workload (45% versus 29%, P < 0.0001). There remain concerns about the negative impact of the pandemic on career development/training (43%), job security (37%). and international fellowship opportunities (76%). Alarmingly, 25% (n = 266/1086) are considering changing their future career with 38% (n = 100/266) contemplating leaving the profession. Conclusion: Oncology professionals continue to face increased job demands. There is now significant concern regarding potential attrition in the oncology workforce. National and international stakeholders must act immediately and work closely with oncology professionals to draw up future-proof recovery plans.

Diversity and Inclusion

Disparities in Creating a Diverse Surgical Oncology Physician Workforce: Just a Leaky Pipeline? Abstract only*
Item Type: Journal Article
Authors: Clarke, Callisia N.
Publication Date: 2022
Journal: Surgical Oncology Clinics of North America 31(1), pp. 21-27
Demographic shifts in the Unites States population highlight the growing need for a diverse physician workforce to care for communities of color and to eliminate existing disparities in cancer care and outcomes for these potentially vulnerable patients. The current surgical oncology workforce lacks adequate racial and ethnic representation, and the pool of medical students and surgical trainees who are underrepresented in medicine (URM) is scant. This review critically evaluates data, summarizes challenges in the recruitment and retention of URM surgeons to surgical oncology, and provides strategies to address these workforce deficits.

Addressing Equity, Diversity, and Inclusion of Black Physicians in the Oncology Workforce.
Item Type: Journal Article
Authors: Winkfield, Karen M.;Levit, Laura A.;Tibbits, Michal;Melnick, Eileen;Schenkel, Caroline;Kirkwood, Kelsey;Green, Sybil and Pierce, Lori
Publication Date: 2021
Journal: JCO Oncology Practice 17(5), pp. 224-226
Improving equity, diversity, and inclusion within the care delivery and biomedical research workforces is critical to reducing health disparities in cancer care.1 Black people are currently underrepresented at every level of the pipeline that supplies the medical oncology workforce, and their representation decreases at each stage in the pipeline. Specifically, Black people are 13.4% of the US population2 but only 11% of college graduates.3 They make up only 6.2% of recent medical school graduates,4 6.2% of internal medicine residents, and 3.9% of oncology fellows.5 Just 3% of medical oncologists are Black (Fig 1).6 Black representation in medical oncology fellowships has remained relatively flat between 2006 and 2018 and is lower than many other internal medicine subspecialties.7 Black physicians are also underrepresented in other oncology specialties, including radiation oncology, surgical oncology, and gynecologic oncology.8 Additionally, a similar problem exists in the health research workforce, with Black physicians being vastly underrepresented in research careers and on medical school faculty.9,10

Women in oncology pharmacy leadership: A white paper
Author(s): Shillinburg et al.
Source: Journal of Oncology Pharmacy Practice 26(1) pp. 175-186
Publication date: January 2020
The purpose of this white paper is to (1) summarize key issues that were identified through a membership survey; (2) review ongoing efforts to address the needs of female oncology pharmacists in leadership development; (3) serve as a call to action for individuals and professional organizations to assist with and disseminate these efforts and highlight available resources, and (4) to provide practical steps to meet the needs of individuals, training programs, and institutions/employers.

American Society of Clinical Oncology Strategic Plan for Increasing Racial and Ethnic Diversity in the Oncology Workforce
Author(s)): Winkfield et al.
Source: Journal of Clinical Oncology
Publication date: August 2017

In December 2016, the American Society of Clinical Oncology (ASCO) Board of Directors approved the ASCO Strategic Plan to Increase Racial and Ethnic Diversity in the Oncology Workforce. Developed through a multistakeholder effort led by the ASCO Health Disparities Committee, the purpose of the plan is to guide the formal efforts of ASCO in this area over the next three years (2017 to 2020). There are three primary goals: (1) to establish a longitudinal pathway for increasing workforce diversity, (2) to enhance ASCO leadership diversity, and (3) to integrate a focus on diversity across ASCO programs and policies. Improving quality cancer care in the United States requires the recruitment of oncology professionals from diverse backgrounds.

Cancer, biomedical science leaders strive to improve workforce diversity
Author(s): Printz
Source: Cancer Scope
Publication date: March 2016
National initiatives target recruiting, retaining researchers from diverse backgrounds.

Global

Global Survey of Clinical Oncology Workforce
Author(s): Mathew et al.
Source: Journal of Global Oncology 4
Publication date: September 2018
A lack of well-trained clinical oncologists can result in significant cancer health disparities. The magnitude of this problem around the world is poorly described in the literature. A comprehensive global survey of the clinical oncology workforce was conducted. Eight countries had no clinical oncologist available to provide care for patients with cancer. In 22 countries (24%), a clinical oncologist would provide care for 500 patients with cancer. In 27 countries (29%), a clinical oncologist would provide care for > 1,000 incident cancers, of which 25 were in Africa, two were in Asia, and none were in Europe or the Americas. The economic and social development status of a country correlates closely with the burden of cancer and the shortage of human resources. Addressing the shortage of clinical oncologists in regions with a critical need will help these countries meet the sustainable development goals for noncommunicable diseases by 2030.

Increasing global access to cancer care: models of care with non-oncologists as primary providers
Author(s): Rubagumya et al,
Source: The Lancet Oncology 18(8)
Publication date: August 2017
The rapidly increasing incidence of cancer in low-income and middle-income countries is compounded by a profound shortage of both oncologists and facilities with the capacity for cancer care in these settings. In a model where only oncologists treat cancer, patients-many with curable diseases-will die waiting for oncologists to be trained. [...]it is imperative to develop innovative models of care that address the immediate needs of patients with cancer. Formal oncology training programmes and opportunities are scarce in low-income and middle-income countries.

Health, wellbeing, and burnout

Oncology Healthcare Professionals' Mental Health during the COVID-19 Pandemic
Item Type: Journal Article
Authors: Granek, Leeat and Nakash, Ora
Publication Date: 2022
Journal: Current Oncology 29(6), pp. 4054-4067

The paper begins by reviewing the literature on oncology healthcare professionals' (HCP) mental health. We summarize and present the current data on HCP mental health in order to understand the baseline state of oncology HCPs' mental health status prior to the COVID-19 pandemic. At each juncture, we will discuss the implications of these mental health variables on the personal lives of HCPs, the healthcare system, and patient care. We follow by reviewing the literature on these parameters during the COVID-19 pandemic in order to better understand the impact of COVID-19 on the overall mental health of HCPs working in oncology. By reviewing and summarizing the data before and after the start of the pandemic, we will get a fuller picture of the pre-existing stressors facing oncology HCPs and the added burden caused by pandemic-related stresses. The second part of this review paper will discuss the implications for the oncology workforce and offer recommendations based on the research literature in order to improve the lives of HCPs, and in the process, improve patient care.

Burnout or Fade Away; experiences of health professionals caring for patients with head and neck cancer. Abstract only*
Item Type: Journal Article
Authors: Gibson, Chandrika;O'Connor, Moira;White, Rohen;Baxi, Siddhartha and Halkett, Georgia
Publication Date: Feb ,2021
Journal: European Journal of Oncology Nursing 50, pp. 101881
Purpose: The oncology workforce has been found to have high risk of burnout; however, limited research has explored the experiences of health professionals working with head and neck cancer patients. The objective of this qualitative study was to explore the experiences of health professionals who work directly with patients diagnosed with head and neck cancers, with a focus on work-life balance, mental health and wellbeing. Method: A total of 21 in-depth semi-structured interviews were conducted with health professionals including radiation oncologists, medical oncologists, nurses, and associated medical and allied health professionals. A qualitative research approach based on social constructionist theory was used. Thematic analysis was used to identify and code themes. Results: Five main themes emerged: 1. Conscientiousness; 2. Empathy; 3. Challenges; 4. Coping; and 5. Burnout or Fade Away. Challenges included sub-themes of Time & Resource Constraints, Work-Life Imbalance, Patients with Complex Needs, and Lack of Self-Care.
Conclusion: It is vital to the sustainability of head and neck oncology services that this highly skilled workforce is retained. The development of interventions that will reduce the risk of burnout and improve retention and capacity of health professionals may include advanced communication skills training, trauma sensitivity training, self-compassion and stress management skills.

Factors contributing to burnout and work-life balance in adult oncology nursing: An integrative review. Abstract only*
Item Type: Journal Article
Authors: Gribben, Louise and Semple, Cherith Jane
Publication Date: Feb ,2021
Journal: European Journal of Oncology Nursing 50, pp. 101887
Purpose: Occupational stress and burnout are highlighted as the most prevalent workplace issues for adult oncology nurses. With today's global nursing workforce shortage; coupled with oncology being an inherently challenging and complex speciality, this clearly indicates the need to understand factors that contribute to burnout in adult oncology nurses and improve work-life balance. The aim of this integrative review is to synthesis the evidence on burnout and work-life balance for adult oncology nurses. Method: A systematic search of four databases (CINAHL, Ovid Medline, PsycINFO and Scopus), identified 17 quantitative and three mixed-method studies. Studies were critically appraised using the Mixed Methods

Appraisal Tool. Following data extraction, a qualitative evidence synthesis utilising an inductive approach was adopted to better understand influential factors, generating analytical themes. Results: One study had a specific focus on what ameliorates work-life balance for oncology nurses; depicting an area that warrants further study. All studies reported on burnout, of which six analytical themes were further categorised into two broad themes, namely: (1) ‘Inability to thrive’: struggling with workplace burnout due to organisational challenges and (2) ‘Personal perspectives influencing burnout’, for adult oncology nurses. Burnout was influenced by multiple oncology-specific factors due to quantitative workload demands and disease acuity. Workplace culture, shift in additional hours being worked remotely and personal characteristics of the nurse, also influenced susceptibility for the development of burnout in oncology nurses. Conclusion: Confronting burnout and promoting wellness are the shared responsibility of both individual adult oncology nurses and their organisations to build resilience and help sustain and build workforce capacity.

Impact

Do working practices of cancer nurse specialists improve clinical outcomes? Retrospective cohort analysis from the English National Lung Cancer Audit.
Item Type: Journal Article
Authors: Stewart, Iain;Leary, Alison;Khakwani, Aamir;Borthwick, Diana;Tod, Angela;Hubbard, Richard;Beckett, Paul and Tata, Laila J.
Publication Date: Jun ,2021
Journal: International Journal of Nursing Studies 118, pp. 103718
Background: Cancer nurse specialists are advanced practitioners who offer continuity of care and expert support for people diagnosed with specific cancers. Health Education England's Cancer Workforce Plan prioritises expansion of cancer nurse specialist numbers by 2021 as part of the Cancer Taskforce Strategy for England. Objective: To assess whether working practices of advanced practice specialist nurses are associated with clinical outcomes for people with lung cancer. Methods: Adults with non-small cell lung cancer followed from 30 days post-diagnosis in English secondary care were obtained from the English National Lung Cancer Audit, 2007 to 2011. A national survey of lung cancer nurse specialists provided information on self-reported working practices. Mortality and unplanned admissions from 30 days to 12 months post diagnosis were respectively analysed using Cox and Poisson regression. Outcomes were assessed according to patients' receipt of initial assessments by a lung cancer nurse specialist and according to trust-level reported working practices. Regression models were adjusted for individual sociodemographic and clinical characteristics, error adjusted for intracorrelations within regional cancer networks, and presented separately according to patients' treatment pathways (surgery, chemotherapy, radiotherapy, or no anti-cancer therapy). Results: Data for 108,115 people with lung cancer were analysed and associations with mortality and unplanned admissions were infrequent. Among people receiving only radiotherapy, however, the hazard for death was 17% lower among those who received an assessment by a lung cancer nurse specialist, compared with no assessment (hazard ratio = 0.83, 95% confidence interval 0.73-0.94; p = 0.003). The hazard was also lower among those receiving surgery (hazard ratio = 0.91, 0.84-0.99; p = 0.028). Among those receiving radiotherapy, nurse specialists' reported confidence within multidisciplinary team settings was associated with a lower risk of death (hazard ratio = 0.88, 0.78-1.00; p = 0.049) and a lower rate of unplanned cancer-related admissions (incidence rate ratio = 0.83, 0.73-0.95; p = 0.007). Lung cancer nurse specialist assessments before/at diagnosis, were associated with a 5%

lower rate of unplanned admissions, compared to when assessments occurred after diagnosis. Conclusion: The contribution of nurse specialist working practices was occasionally associated with better outcomes for people with lung cancer. These were not limited to a single treatment pathway, but do indicate discrete relationships within pathways. Our study provides initial measures of overall lung cancer nurse specialist working practices at trusts, however, more detailed studies with longitudinal measurement of lung cancer nurse specialist-patient interaction are needed to better ascertain impacts on long-term patient outcomes. The findings highlight opportunities for potential improvement in effectiveness of service and care management.

Nurse Practitioners and Physician Assistants: An Underestimated Workforce for Older Adults with Cancer
Author(s): Coombs et al.
Source: Journal of the American Geriatrics Society
Publication date: July 2019
Previous research underestimated the number of PAs and NPs providing cancer care to older adults, especially to lower-income older adults, those in rural settings, and those in the South. Any solution to the rising demands for cancer care will need to maximize every healthcare provider's contribution and support his/her practice at the full scope of his/her license. Findings from this study offer a starting point at which future workforce surveys can be compared. Solutions that address the shortage of cancer care providers for older adults need to be based on a realistic understanding of who is providing that care. NPs and PAs can help improve care access.

How Nurse Practitioners Are Enhancing the Oncology Workforce
Source: ONS Voice
Publication date: January 2018
The article offers information on American Society of Clinical Oncology Practice Census survey that advanced practice providers play pivotal clinical roles like ordering and administering chemotherapy to managing pain and other adverse effects or symptoms, and provide primary care to patients with cancer and survivors. Topics discussed include access to high-quality oncology care; need to meet the unique care needs of patients with cancer; and enhance the oncology workforce.

Palliative care teams' cost-saving effect is larger for cancer patients with higher numbers of comorbidities
Author(s): May et al.
Source: Health Affairs 35(1)
Publication date: 2016
Patients with multiple serious conditions account for a high proportion of health care spending. Such spending is projected to continue to grow substantially as a result of increased insurance eligibility, the ever-rising cost of care, the continued use of nonbeneficial high-intensity treatments at the end of life, and demographic changes. We evaluated the impact of palliative care consultation on hospital costs for adults with advanced cancer, excluding those with dementia. We found that compared to usual care, the receipt of a palliative care consultation within two days of admission was associated with 22 per cent lower costs for patients with a comorbidity score of two to three and with 32 per cent lower costs for those with a score of 4 or higher. Earlier consultation was also found to be systematically associated with a larger cost-saving effect for all subsamples defined by multimorbidity. Given ongoing workforce shortages, targeting early specialist palliative care to hospitalized patients with advanced cancer and higher numbers of serious concurrent conditions could improve care while complementing strategies to curb the growth of health spending.

New and Emerging Roles

Change agents in the oncology workforce: Let's be clear about community health workers and patient navigators.
Item Type: Journal Article
Authors: Battaglia, Tracy A.;Zhang, Xiaochen;Dwyer, Andrea J.;Rush, Carl H. and Paskett, Electra D.
Publication Date: 2022
Journal: Cancer 128(Suppl 13), pp. 2664-2668
Despite efforts of professional organizations and government agencies to solidify the professional identities of community health workers and patient navigators in the oncology workforce, the scientific literature perpetuates wide variation in the nomenclature used to define these natural change agents, who have proven efficacy in improving access to quality cancer care for historically marginalized populations. To disseminate, sustain, and scale-up these life-saving roles in cancer care, the oncology field must come together now to adopt clear and consistent job titles and occupational identities.

Integrating genetic assistants into the workforce: An 18-year productivity analysis and development of a staff mix planning tool. Abstract only*
Item Type: Journal Article
Authors: Krutish, Angela;Balshaw, Robert F.;Jiang, Xuejing and Hartley, Jessica N.
Publication Date: 2022
Journal: Journal of Genetic Counseling 31(5), pp. 1183-1192
In recent years, genetic (counseling) assistants have been integrated in the genetics workforce, such that one-third of genetic counselors now report working with a genetic assistant. While several studies showed that adoption of the genetic assistant model leads to an increase in patient volume, the impact of this role substitution has not been studied quantitatively beyond the cancer genetics workforce. This study utilized 18 years of data from a publicly funded genetics clinic with multiple specialties and varying staff mix. Time series regression modeling was applied to describe the evolving impact of genetic assistants on genetic counselor and clinical geneticist productivity (measured as patient volume). The regression models suggest that the integration of genetic assistants led to a sustainable increase in genetic counselor patient volume, while clinical geneticist patient volume was unaffected. Importantly, the models also demonstrated an interaction between the number of genetic counselors and genetic assistants, whereby the impact of adding a genetic counselor was greater as more genetic assistants were employed in the clinic, and vice versa. The main regression model was used to create "ClinMix: A Genetics Staff Mix Planning Tool," an Excel application that allows users to explore how different staffing plans could affect patient volume, by applying the parameters estimated from this data or their own. We hope this report and the ClinMix tool can be employed by the genetics workforce to advocate for further implementation and evaluation of genetic assistant positions. Adoption of the genetic assistant model may provide clinics the support needed to meet increasing service delivery demands and subsequently foster genetic counselor practice at "top of scope."

Trends in the delivery of care to oncology patients in the United States: Emphasis on the role of pharmacists on the healthcare team
Author(s): Ignoffo et al.
Source: Journal of Oncology Pharmacy Practice 27(1)
Publication date: January 2021
Anticipated increases in demand for oncology pharmacists strongly suggest the need for more PGY2 oncology residency programs and on-the-job oncology training programs. Oncology

pharmacists are currently involved in many clinical and administrative functions including multidisciplinary management. While a core set of clinical functions has been identified, oncology pharmacists must prepare for the increased use of oral oncology agents and immunotherapy. Pharmacist involvement in value-based reimbursement and other data-based quality outcome measurements should be increased to optimize involvement in team-based patient care.

Physician associate/assistant contributions to cancer diagnosis in primary care: a rapid systematic review.
Item Type: Journal Article
Authors: Sheringham, Jessica;King, Angela;Plackett, Ruth;Khan, Anwar;Cornes, Michelle and Kassianos, Angelos P.
Publication Date: 2021
Journal: BMC Health Services Research 21(644), pp. (3 Juy 2021)
Background: Symptom recognition and timely referral in primary care are crucial for the early diagnosis of cancer. Physician assistants or associates (PAs) have been introduced in 18 healthcare systems across the world, with numbers increasing in some cases to address primary care physician shortages. Little is known about their impact on suspected cancer recognition and referral. This review sought to summarise findings from observational studies conducted in high income countries on PAs' competence and performance on processes concerned with the quality of recognition and referral of suspected cancer in primary care. Method: A rapid systematic review of international peer-reviewed literature was performed. Searches were undertaken on OVID, EMBASE, Web of Science, and CINAHL databases (2009–2019). Studies were eligible if they reported on PA skills, processes and outcomes relevant to suspected cancer recognition and referral. Title and abstract screening was followed by full paper review and data extraction. Synthesis of qualitative and quantitative findings was undertaken on three themes: deployment, competence, and performance. Preliminary findings were discussed with an expert advisory group to inform interpretation. Results: From 883 references, 15 eligible papers were identified, of which 13 were from the USA. Seven studies reported on general clinical processes in primary care that would support cancer diagnosis, most commonly ordering of diagnostic tests (n = 6) and referrals to specialists (n = 4). Fewer papers reported on consultation processes, such as examinations or history taking (n = 3) Six papers considered PAs' competence and performance on cancer screening. PAs performed similarly to primary care physicians on rates of diagnostic tests ordered, referrals and patient outcomes (satisfaction, malpractice, emergency visits). No studies reported on the timeliness of cancer diagnosis. Conclusion: This review of peer-reviewed literature combined with advisory group interpretation suggests the introduction of PAs into primary care may maintain the quality of referrals and diagnostic tests needed to support cancer diagnosis. It also highlights the lack of research on several aspects of PAs' roles, including outcomes of the diagnostic process.

What are the motivating and hindering factors for health professionals to undertake new roles in hospitals? A study among physicians, nurses and managers looking at breast cancer and acute myocardial infarction care in nine countries
Author(s): Koppen et al.
Source: Health Policy Journal 122(10)
Publication date: October 2018
Many European countries experience health workforce skill-mix changes due to population ageing, multimorbidity and medical technology. Yet, there is limited cross-country research in hospitals. Managers need to know the motivational factors of their employees and enabling versus hindering factors within their organisations to govern change effectively.

New professional roles and patient satisfaction: Evidence from a European survey along three clinical pathways Health Policy, October 2018
This paper reports the results of an empirical analysis exploring the impact of new professions (e.g. a physician associate) and new professional roles on patient experiences of and satisfaction with care. A subset of data from a patient survey conducted as part of the MUNROS programme of work was used. For patients with breast cancer, high levels of satisfaction are associated with the involvement of new professions/professional roles in the provision of conditions specific education and monitoring. For patients with heart disease, the involvement of new professions/professional roles is likely to have a negative impact on satisfaction. For patients with Type 2 diabetes results are ambivalent. Patients belonging to countries experiencing innovative models of healthcare delivery and with high levels of involvement of new professions/professional roles are generally more satisfied. In conclusion, the introduction of new professions does not affect patient satisfaction negatively, therefore introducing new health professional roles is a pursuable strategy from a patient satisfaction perspective, at least for breast cancer and type 2 diabetes.

The Experiences of Specialist Nurses Working Within the Uro-oncology Multidisciplinary Team in the United Kingdom
Author(s): Pushon et al.
Source: Clinical Nurse Specialist (CNS)
Publication date: 2017
United Kingdom prostate cancer nursing care is provided by a variety of urology and uro-oncology nurses. The experience of working in multidisciplinary teams (MDT) was investigated in a national study. Despite expertise and experience, nurses had a variable, often negative, experience of the MDT. It is necessary to ensure that all participants can contribute and are heard and valued. More emphasis should be given to patients' nonmedical needs.

Reconfiguring health workforce: a case-based comparative study explaining the increasingly diverse professional roles in Europe
Author(s): de Bont et al.
Source: BMC Health Services Research 16(637)
Publication date: November 2016
Over the past decade the healthcare workforce has diversified in several directions with formalised roles for health care assistants, specialised roles for nurses and technicians, advanced roles for physician associates and nurse practitioners and new professions for new services, such as case managers. Hence the composition of health care teams has become increasingly diverse. There are considerable differences in the number and kind of extended roles between both countries and care pathways. The main drivers for new roles reside in the technological development of medical treatment and the need for more generic competencies. Extended roles develop in two directions: 1) specialised roles and 2) generic roles.

The impact of the introduction of a palliative Macmillan consultant radiographer at one UK cancer centre
Author(s): Goldfinch et al.
Source: The British Journal of Radiology 89(1065)
Publication date: September 2016
OBJECTIVE The UK radiotherapy (RT) workforce needs novel strategies to manage increasing demand. The appointment of a palliative RT (PRT) consultant radiographer (CR) offers a potential solution to enhance patient pathways providing timely RT. This article examined the impact of one such appointment. CONCLUSION A CR has the potential to impact on the patient pathway, enabling quicker times from DTT to treatment.

Continued audit of the role is required to ensure that it complements SpR training.

Role of care co-ordinators in cancer clinical nurse specialist teams
Author(s): Barber
Source: Cancer Nursing Practice
Publication date: April 2016
Strategic interest in the skill mix of the healthcare workforce has acknowledged the increasingly important role of non-registered staff, with care for cancer patients provided by teams comprising clinical nurse specialists (CNSs) at bands 6 and 7 and care co-ordinators at bands 3 and 4. This article outlines the development and role of care co-ordinators in cancer CNS teams in Leeds Teaching Hospitals NHS Trust, using the example of a gynaecological oncology care co-ordinator as a case study. With the support of CNS colleagues, the Leeds care co-ordinators provide high-quality patient care through telephone and face-to-face contact and holistic needs assessments. Care co-ordinators act as named key workers for patients, developing good relationships and providing support at diagnosis, through treatment and beyond to survivorship. Patients and carers have welcomed the role and its development has enabled CNSs to focus their specialist skills on those patients requiring higher level interventions.

The specialist nursing workforce caring for men with prostate cancer in the UK
Author(s): Leary et al.
Source: International Journal of Urological Nursing 10(1)
Publication date: March 2016
A national survey of the specialist nursing workforce caring for men with prostate cancer was completed across the four countries of the UK during June and July 2014. In total 302 specialist nurses completed the survey and data from 285 was used in the analysis. This is the biggest whole population survey of this workforce in recent years. The most common job title was clinical nurse specialist (185) and the most common band was agenda for change band 7 (174). However in Scotland 50% of the respondents stated that they were paid on band 6. Over half the group (158) had worked in prostate cancer care for more than 10 years. Few (48) had come into specialist posts from a specific specialist nurse development role. There is wide geographic variation in the provision of specialist nursing for men with prostate cancer. This is reflected in available hours and caseload sizes. The respondents reported frozen and vacant posts across the UK. This equated to 58·3 full time equivalents. The work of specialist nurses caring for men with prostate cancer is clinically complex and appears to cover most key times in the cancer journey. However workload appears to be limiting the care that the nurses are able to provide with over half the respondents (163) saying that they left work undone for patients.

Lung Cancer Nurse Specialists

Are working practices of lung cancer nurse specialists associated with variation in peoples' receipt of anticancer therapy?
Author(s): Stewart et al.
Source: Lung Cancer 123
Publication date: September 2018
Treatment choices for people with lung cancer may be influenced by contact and engagement with lung cancer nurse specialists (LCNSs). We investigated how service factors, LCNS workload, and LCNS working practices may influence the receipt of anticancer treatment. LCNS assessment, workload, and working practices are associated with the likelihood of patients receiving anticancer therapy. Enabling and supporting LCNSs to undertake key case management interventions offers

an opportunity to improve treatment uptake and reduce the apparent gap in receipt of surgery for those suitable.

Which patients are assessed by lung cancer nurse specialists? A national lung cancer audit study of over 128,000 patients across England
Author(s): Khakwani et al.
Source: Lung Cancer 96
Publication date: June 2016
Lung cancer nurse specialists (LCNS) are integral to the multidisciplinary clinical team, providing personalised physical and psycho-social interventions, and care management for people with lung cancer. The National Institute of Health and Care Excellence (NICE) recommend that all patients have access to a LCNS. We conducted a national study assessing whether there is variation in access to and timing of LCNS assessment. LCNS assessment varied by patient and Trust features, which may indicate unmet need for some patients. The current workforce needs to expand as well as retain experienced LCNSs.

New ways of working

American Society of Clinical Oncology Road to Recovery Report: Learning From the COVID-19 Experience to Improve Clinical Research and Cancer Care
Author(s): Pennell et al.
Source: Journal of Clinical Oncology 39(2)
Publication date: January 2021
This report presents the American Society of Clinical Oncology's (ASCO's) evaluation of the adaptations in care delivery, research operations, and regulatory oversight made in response to the coronavirus pandemic and presents recommendations for moving forward as the pandemic recedes. Its specific goals are: (1) ensure that clinical research is accessible, affordable, and equitable; (2) design more pragmatic and efficient clinical trials; (3) minimize administrative and regulatory burdens on research sites; (4) recruit, retain, and support a well-trained clinical research workforce; and (5) promote appropriate oversight and review of clinical trial conduct and results. Similarly, ASCO also organized its recommendations regarding cancer care delivery around five goals: (1) promote and protect equitable access to high-quality cancer care; (2) support safe delivery of high-quality cancer care; (3) advance policies to ensure oncology providers have sufficient resources to provide high-quality patient care; (4) recognize and address threats to clinician, provider, and patient well-being; and (5) improve patient access to high-quality cancer care via telemedicine.

Cancer Nursing's Potential to Reduce the Growing Burden of Cancer Across the World
Author(s): Yates et al.
Source: Oncology Nursing Forum 47(6)
Publication date: November 2020
The incidence of cancer globally is expected to exceed 27 million new cancer cases per year by 2040 in part due to the aging of the population and greater susceptibility to aging-related diseases such as cancer. This estimated increase in cancer incidence will occur in all countries, but the predicted increase will be proportionately greatest in low and medium countries.

Oncology workforce skills and competencies required for molecular medicine
Author(s): Groves
Source: European Journal of Hospital Pharmacy. Science and Practice 27(5)
Publication date: September 2020

Increasing the wider workforce knowledge and understanding of molecular medicine is an enormous task and requires significant investment. This editorial is aimed at raising awareness of the workforce configurations and new roles required to deliver molecular alteration-specific treatments. Individualised patient care has never been so important, and the cancer services' workforce must develop the capacity and expertise to keep pace with advances in technology in order to improve outcomes and support for patients with cancer.

Developing and Sustaining an Effective and Resilient Oncology Careforce: Opportunities for Action
Author(s): Takvorian et al.
Source: Journal of the National Cancer Institute 112(7)
Publication date: April 2020
Considering the widening gap between the number of patients needing cancer care and the limited capacity of the current workforce to meet these demands, a crisis is looming, which will hinder access to timely, high-quality care if left unchecked. Because recruiting and training more cancer clinicians is unlikely to solve this problem alone, we posit that the most critical and feasible solution is to improve the efficiency with which cancer care is delivered, leveraging the strategies described above. Organizations should embark on practice-level changes to improve the effectiveness and resilience of their workforces, but system-level changes are also urgently needed and will require national will and coordinated efforts from regulatory agencies, payers, and practitioners.

Task shifting between physicians and nurses in acute care hospitals: cross-sectional study in nine countries
Author(s): Maier et al.
Source: Human Resources for Health 16(24)
Publication date: May 2018
BACKGROUND Countries vary in the extent to which reforms have been implemented expanding nurses' Scopes-of-Practice (SoP). There is limited cross-country research if and how reforms affect clinical practice, particularly in hospitals. This study analyses health professionals' perceptions of role change and of task shifting between the medical and nursing professions in nine European countries. CONCLUSIONS Higher levels of changes to staff roles and task shifting were reported in the Netherlands, England and Scotland, suggesting that professional boundaries have shifted, for instance on chemotherapy or prescribing medicines. For most tasks, however, a partial instead of full task shifting is practice.

Development and testing of the cancer multidisciplinary team meeting observational tool (MDT-MOT)
Author(s): Harris et al.
Source: International Journal of Quality in Health Care 28(3)
Publication date: 2016
OBJECTIVE: To develop a tool for independent observational assessment of cancer multidisciplinary team meetings (MDMs), and test criterion validity, inter-rater reliability/agreement and describe performance. CONCLUSIONS: MDT-MOT demonstrated good criterion validity. Agreement between clinical and non-clinical observers (within one point on the scale) was high but this was inconsistent with reliability coefficients and warrants further investigation. If further validated MDT-MOT might provide a useful mechanism for the routine assessment of MDMs by the local workforce to drive improvements in MDT performance.

Retention

Factors Influencing Pediatric Hematology/Oncology Nurse Retention: A Scoping Review. Abstract only*
Item Type: Journal Article

Authors: Macintyre, Madeleine R.;Brown, Brandon W. J. and Schults, Jessica A.
Publication Date: 2022
Journal: Journal of Pediatric Hematology/Oncology Nursing 39(6), pp. 402-417
Background: Nursing staff retention is an ongoing concern within pediatric hematology/oncology settings globally. Work-related stressors cause emotional burden, psychological distress, and burnout to which nurses respond by leaving their workplace. Consequently, workplace culture and functionality are negatively impacted, quality of care reduces, and potential harm to patients increases. This paper aims to identify the "most" influencing factors for intention to leave among pediatric hematology/oncology nurses. Methods: A systematic search was undertaken on 29 July 2021 across five electronic databases, Cumulative Index to Nursing and Allied Health Literature, Joanna Briggs Institute, MEDLINE, PubMed, and Web of Science, using MeSH and keywords related to pediatric hematology/oncology nurse retention. Results: The initial search yielded 283 articles. Following abstract and full-text review, nine articles met inclusion criteria. Across all studies, strong links between health service organizational factors (e.g., unit acuity and time constraints), clinician demographics (e.g., age, education, experience, and coping mechanisms), and nursing retention within pediatric hematology/oncology settings were observed. Direct patient care and long-term relationships with pediatric hematology/oncology patients were identified as the most frequent and intense stressors, while also presenting the most rewarding aspect of the nurse's
work. Discussion: Clinician burnout and retention were found to be complex and multifaceted organizational and individual issues, which most importantly evolved from accumulative exposure to specialty-specific stressors. Interventions to prevent clinician burnout and improve staff retention, therefore, need to comprise individual and organizational level strategies specific to the healthcare context.

Assessment of attrition and retention factors in the oncology pharmacy workforce: results of the oncology pharmacy workforce survey Abstract only*
Author(s): Kamakshi et al.
Source: Journal of the American College of Clinical Pharmacy 5911)
Publication date: August 2022
Introduction: Hospital departments of pharmacy are experiencing significant challenges in the recruitment and retention of trained hematology-oncology pharmacists. The reasons for these challenges are varied, but one consistent challenge is the growing attrition of clinically-trained pharmacists from the patient care environment. Methods: An electronic 21-item survey was distributed to oncology pharmacists across the United States. The survey assessed work environment, board certification, clinical commitment, and other factors. How those factors might be associated with reported job satisfaction and risk for attrition was examined. Results: A total of 607 individuals responded to at least one of the survey questions, with the majority representing those actively in clinical practice. The results demonstrate that the oncology pharmacy workforce is a highly trained and capable one, with a high level of satisfaction with their work. That said, over 60% of those who responded indicated that they were either actively seeking or open to alternate employment outside of the patient care environment. The largest contributing factors to attrition risk include untenable work burdens, burnout, lack of work-life integration, and ineffective leadership, while commitments to clinical work were associated with improved job satisfaction and decreased attrition risk. Conclusion: These results bring to light the current state of satisfaction and attrition risk for the oncology pharmacy workforce nationwide. A

significant opportunity exists to improve the experience of these pharmacists, particularly in the patient care environment. Based on these findings, departmental, organizational, and national leadership must pursue more tenable work burdens, better value and recognition measures, and more accurate and meaningful metrics for clinical pharmacists in order to retain this important workforce.

Shortages and Supply

Cancer care: Staff shortages are limiting progress in England, says expert panel. Full text available with NHS Open Athens account*
Item Type: Journal Article
Authors: Griffin, Shaun
Publication Date: 2022
Journal: Bmj 376, pp. o862
The UK government has been given an overall rating of “inadequate” by a panel of experts for its progress against commitments on cancer services in England.
The panel, which was commissioned by the House of Commons Health and Social Care committee, gave Care Quality Commission-style ratings to five specific pledges in four policy areas: workforce, diagnostics, living well with and beyond cancer, and technology and innovation.

Shortages of radiology and oncology staff putting cancer patients at risk, college warns. Full text available with NHS Open Athens account*
Item Type: Journal Article
Authors: Limb, Matthew
Publication Date: 2022
Journal: Bmj 377, pp. o1430
Patients in the UK with cancer are at risk from “devastating” effects of shortfalls of key radiology and oncology staff, leading specialists have warned. The Royal College of Radiologists said that current workforce problems were “unsustainable” and that every month delayed cancer treatment raised the risk of death by around 10%. It highlighted service heads’ concerns for safe patient care, high levels of staff stress and burnout, affecting retention, a growing reliance on staff from overseas, a worrying use of expensive locums, and regional inequalities in the ability to deliver lifesaving cancer care.

Mentoring Medical Students Towards Oncology: Results from a Pilot Multi-institutional Mentorship Programme. Abstract only*
Item Type: Journal Article
Authors: Rallis, Kathrine S.;Wozniak, Anna;Hui, Sara;Stammer, Adam;Cinar, Cigdem;Sun, Min;Fulton-Ward, Taylor;Clarke, Alison A.;Papagrigoriadis, Savvas;Papalois, Apostolos and Sideris, Michail Ch
Publication Date: 2022
Journal: Journal of Cancer Education 37(4), pp. 1053-1065
The mounting global cancer burden has generated an increasing demand for oncologists to join the workforce. Yet, students report limited oncology exposure in undergraduate medical curricula, while undergraduate oncology mentorships remain underutilised. We established an undergraduate oncology society-led mentorship programme aimed at medical students across several UK universities to increase medical student oncology exposure. We electronically recruited and paired oncologist mentors and medical student mentees and distributed a dedicated questionnaire (pre- and post-mentorship) to compare mentees' self-reported cancer specialty knowledge and oncology career motivation after undertaking a 6-week mentorship. We also determined students' interest across specialties and subspecialties and measured mentor availability via percentage programme uptake. Statistical analysis included univariate inferential tests on SPSS software. Twentynine (23.4%) of 124 oncology specialists agreed to

become mentors. The mentorship was completed by 30 students across three medical schools: 16 (53.3%) Barts, 10 (33.3%) Birmingham, and 4 (13.3%) King's; 11 (36.7%) mentored by medical oncologists, 10 (33.3%) by clinical/radiation oncologists, and 9 (30%) by surgical oncologists. The mentorship generated a statically significant increase in students' knowledge of the multidisciplinary team and all oncology-related specialties including academia/research but not interest towards a career in oncology. Undergraduate oncology mentoring is an effective educational, networking and motivational tool for medical students. Student societies are a valuable asset in cultivating medical student oncology interest by connecting students to faculty and increasing mentor accessibility. Further research should focus on developing an optimal mentorship structure and evaluating long-term outcomes of such educational initiatives.

Failure to tackle workforce shortages threatens cancer survival progress in England.
Item Type: Journal Article
Authors: Wilkinson, Emma
Publication Date: 2022
Journal: Lancet Oncology 23(5), pp. e208
The absence of any serious plan to tackle workforce shortages is threatening efforts towards improving early cancer diagnosis and overall survival rates in England, a crucial report from the Health and Social Care Committee has warned. Members of Parliament warned there was a real risk that gains made in cancer survival would be reversed as pressured health care services continue to grapple with the ongoing impact of the COVID-19 pandemic.

Oncology nursing workforce: challenges, solutions, and future strategies
Author(s): Challinor et al.
Source: The Lancet Oncology 21(12)
Publication date: December 2020
Innovative recruitment strategies, onboarding and continuing education programmes, occupational safety measures, and burnout prevention interventions are documented solutions. The long-term effect of COVID-19 on oncology care worldwide is unknown, but immediate therapy interruptions, workforce consequences, and threats to standard oncology nursing practice are addressed here. Retention of experienced oncology nurses is crucial for future cancer control in all countries and must be addressed, particularly in resource-constrained countries with few oncology nursing staff and continuing out-migration of nurses to resource-rich countries.

Radiographer reporting: A literature review to support cancer workforce planning in England
Author(s): Culpan et al.
Source: Radiography 25
Publication date: May 2019
Radiographer reporting is well established in the United Kingdom. Scope of practice varies individually and geographically. Deployment of appropriately trained reporting radiographers is helping the NHS maintain high quality clinical imaging service provision and deliver a cost-effective increase in diagnostic capacity. Working within multiprofessional clinical imaging teams, within a defined scope of practice and with access to medical input when required, reporting radiographers augment capacity in diagnostic pathways and release radiologist time for other complex clinical imaging responsibilities.

Management of Medical Oncology Services in Canada: Redefined Workload with a Novel Supply-and-Demand Workforce Projection Model

Author(s): Yip et al.
Source: Journal of Oncology Practice 14(7)
Publication date: July 2018
We developed a workforce-planning model to predict Canadian medical oncologist (MO) supply and clinical demand during the next 10 years. We have developed a forward calculation MO workforce model that predicts a growing Canadian MO workforce and redefines MO workload dynamics. MO providers will increasingly support more follow-up care with the initiation of multiple lines of systemic therapy relative to the medical management of patients at the time of initial cancer diagnosis. Workload metrics, including follow-up and new therapy initiation rates, must be measured to appropriately to meet increasingly complex and growing care demands.

The characteristics of oncology social work in Australia: Implications for workforce planning in integrated cancer care
Author(s): Pockett et al.
Source: Asia-Pacific Journal of Clinical Oncology 12(4)
Publication date: December 2016
AIMS To describe the demographics, professional characteristics, self-reported professional development needs and research involvement of oncology social workers in Australia and to describe perceived barriers to provision of quality psychosocial care. In this first Australian study of the social work oncology workforce, the results demonstrated active, well-qualified and experienced social workers providing frontline services to people with cancer and their caregivers in geographically diverse locations across Australia. Inadequate resources and a lack of integrated psychosocial care were identified as barriers to comprehensive cancer care. The need for Aboriginal and Torres Strait Islander social workers was identified as an urgent workforce priority.

Staff and patient perspectives and perceptions

Perceptions of the cancer care left undone in primary and community services: A mixed methods evaluation
Author(s): Lawler et al.
Source: Health & Social Care in the Community 28(6)
Publication date: May 2020
This service evaluation aimed to elucidate some of the views of the workforce in this sector of what work in cancer care is left undone, and what they would like to be able to offer more of. An exploratory sequential design was taken including a questionnaire and interviews asking primary and community care staff in London about their workload in cancer care. Respondents identified psychological care for people with cancer (PWC), and bereavement care for families and carers of PWC as the most common areas that were left undone. They would like to do more proactive work, in place of the current reactive ‘firefighting’ they are doing. For example, signposting available services to PWC and access to nutritional support.

Nurses’ Perspectives on the Personal and Professional Impact of Providing Nurse-Led Primary Palliative Care in Outpatient Oncology Settings
Author(s): Feldenzer
Source: International Journal of Palliative Nursing 25(1)
Publication date: January 2019
Nurses reported a sense of personal and professional fulfilment from providing primary PC, while noting the risk of increased emotional attachment to patients. Participation improved nursing communication skills. A supportive workplace helped to minimise stress related to incorporating primary PC into busy treatment schedules. Conclusion: Providing primary PC challenges the task-oriented paradigm of nursing practice and

will potentially alter the professional roles and workloads of infusion room nurses.

A mixed methods analysis of experiences and expectations among early-career medical oncologists in Australia
Author(s): Wong et al.
Source: Asia-Pacific Journal of Clinical Oncology 14(5)
Publication date: January 2018
A viable and sustainable medical oncology profession is integral for meeting the increasing demand for quality cancer care. The aim of this study was to explore the workforce-related experiences, perceptions and career expectations of early-career medical oncologists in Australia. Perceived diminished employment opportunities in the medical oncology profession, and shifting expectations to be "more qualified," have increased uncertainty among junior medical oncologists in terms of their future career prospects. Structural factors relating to adequate funding of medical oncology positions may facilitate or inhibit progressive change in the workforce and its sustainability. Workforce planning and strategies informed by findings from this study will be necessary in ensuring that both the needs of cancer patients and of medical oncologists are met.

A national survey exploring UK trainees' perceptions, core training experience, and decisions to pursue advanced training in breast radiology
Author(s): Lowes et al.
Source: Clinical Radiology 72(11)
Publciation date: November 2017
To investigate UK radiology trainees' perceptions of breast radiology and the factors that influenced their decision whether or not to choose breast radiology as an area of special interest. Breast radiology faces a significant workforce shortfall that is predicted to worsen in the coming years. There has never been a greater need to recruit specialty trainees into this field, and action is urgently needed to help ensure the sustainability of breast services and drive further improvements to patient care. The findings from this survey should be regarded as a challenge to all breast radiologists to engage with trainees from an early stage in their training and to enthuse them with the many positive aspects of a career in breast radiology.

Patient Perspectives on Nurse Practitioner Care in Oncology in Canada
Author(s):Stahlke et al.
Source: Journal of Nursing Scholarship 49(5)
Publication date: September 2017
The purpose of this study was to add to what is known about patient satisfaction with nurse practitioner (NP) care, from the perspective of breast cancer patients who were followed by an NP. Conclusions and Clinical Relevance Today's healthcare system is characterized by accessibility issues, unmet patient need, workforce issues, and funding pressures. This research supports and enriches what is known about the benefits and usefulness of NP-provided care from the viewpoint of those receiving the care. The findings offer guidance to NPs in the clinical setting regarding patient needs and optimal care strategies.

Training, education, and skill mix

Investigating the self-perceived educational priorities among oncology nurses. Abstract only*
Item Type: Journal Article
Authors: Tapsall, Doreen;Thamm, Carla;Paterson, Catherine and Cancer Nurses Society of Australia
Publication Date: Oct ,2022
Journal: Nurse Education in Practice 64, pp. 103426

Aim: To understand the self-perceived educational priorities among oncology nurses.
Background: Oncology nurses are the main providers of care to people affected by cancer. However, little is known about the educational needs and priorities of oncology nurses when providing care to people living with cancer. Design: A national online survey. Setting: The Cancer Nurses Society of Australia (CNSA) is an Australian wide professional body for cancer nurses. At the time of conducting the research, there were approximately 1300 members. All members were invited to participate in the survey. CNSA provided access to nurses working in all areas of cancer care, including inpatient wards, outpatient centres, ambulatory day oncology units, radiation oncology, bone marrow transplant units, educational, and research units. Participants: Registered nurses involved in direct care of people affected by cancer who were members of CNSA, and ability to communicate in English. Methods: The instrument consisted of a 15-item online questionnaire which included demographic and professional questions related to the self-perceived oncology educational needs which were free-text. This survey was hosted using an online electronic data capture system (i.e., SurveyMonkey®), and the electronic link was sent to the CNSA who then sent an email invitation to the 1300 members. Results: 610 educational needs were identified and ranked. These individual answers were grouped into seven overarching categories with various sub-categories within each group. The oncology nurses identified important educational topics which included: a) cancer biology, b) treatments, c) direct patient care, d) age-specific cancer care, e) leadership and research, and f) law and ethics. Conclusion: As the number of people affected by cancer continue to rise, addressing the educational needs and priorities of oncology nurses has never been so important. Higher educational institutions and healthcare institutions should consider these findings in addressing the learning needs for the current oncology nursing workforce.

Workforce development will bolster cancer services: The updated RCN career and education framework will help to develop the cancer nursing workforce Abstract only*
Item Type: Journal Article
Authors: Taylor, Vanessa
Publication Date: 2022
Journal: Cancer Nursing Practice 21(2), pp. 10
Abstract: Workforce development needs regular review as part of an overall strategy to ensure nurses provide high-quality care for people with cancer. Even before the COVID-19 pandemic, calls had been made to address staff shortages in cancer nursing and to develop the workforce in specialist cancer services and roles.

Enhancing skill mix in the clinical oncology workforce – capturing impacts of consultant therapeutic radiographers in the UK
Author(s): Tsang et al.
Source: Clinical Oncology 33(5)
Publication date: May 2021

Embracing Skill Mix in the Clinical Oncology Workforce – Capturing Impacts of Consultant Therapeutic Radiographers in the UK Abstract only*
Item Type: Journal Article
Authors: Tsang, Y.;Roberts, N.;Wickers, S. and Nisbet, H.
Publication Date: 2021
Journal: Clinical Oncology 33(5), pp. e239-e242
About 3.7 million new cancers are diagnosed annually in Europe, with more than 1.9 million associated deaths [[1]]. Radiotherapy is an essential treatment modality in cancer management and is recommended in more than 50% of cases

[[2],[3]]. In the UK, there is a growing demand for radiotherapy services due to the reported 3% increase in cancer prevalence per year [[4]]. This increase in demand is set against a background of declining growth in the non-surgical oncology medical workforce. Vacant consultant clinical oncologist posts have more than doubled over the past 5 years to a 10% vacancy rate in 2019, with this shortfall predicted to rise over the next 5 years [[5]]. An emphasis on skill mix and collaboration with the multidisciplinary team has been highlighted as one way to help meet demand and patient expectation.

Nurturing a Research-active Clinical Oncology Workforce: A Trainee Perspective Abstract only*
Author(s): Jones and Spencer
Source: Clinical Oncology 33(1)
Publication date: January 2021
In recent years the number of clinical oncology consultants who hold research posts has fallen. There is a need to develop a training environment in which all clinical oncologists are enthused and enabled to participate om research. This will depend not just on providing every trainee with exposure to research or with the space and time to undertake it; but on doing so from the earliest stages of training within an environment rich in incentives, support, and mentorship.

Oncology workforce skills and competencies required for molecular medicine
Author(s): Groves
Source: European Journal of Hospital Pharmacy 27(5)
Publication date: 2020
In the past decade, the costs associated with DNA sequencing technology, known as Next Generation Sequencing (NGS), have significantly declined.1 The declining cost of technology and increased knowledge of the human genome have had a major impact within oncology. As an oncology pharmacist I have witnessed the growing number of targeted agents and immunotherapies available to patients. Recognising this, I completed a Masters qualification in genomic medicine and sit on the Newcastle Genomics Tumour Advisory Board (GTAB). However, I still find it challenging to maintain up-to-date clinical knowledge regarding the biology, prognostic impact and treatment implications of oncogenic gene mutations. The impact of ‘personalised oncology’ on the cancer services' workforce requires careful assessment and this editorial will address the challenges and subsequent training requirements for healthcare professionals working in oncology.

The multidisciplinary pediatric psycho-oncology workforce: A national report on supervision for staff and training opportunities
Author(s): Kazak et al.
Source: Psycho-oncology 27(12)
Publication date: December 2018
A properly trained and supported psychosocial workforce is essential to providing evidence-based care consistent with the Psychosocial Standards. Psychosocial providers are appropriately licensed. However, supervision opportunities are variable and may be inadequate for the intensity of the work. It is important to address the limited opportunities for trainees in pediatric cancer programs, which may influence the pipeline for ongoing and future work in this area.

Skill sharing and delegation practice in two Queensland regional allied health cancer care services: a comparison of tasks
Author(s): Passfield et al.
Source: Australian Health Review 42
Publication date: November 2018
Delegation and skill sharing are emerging service strategies for allied health (AH) professionals working in Queensland regional

cancer care services. The aim of the present study was to describe the consistency between two services for the types and frequency of tasks provided and the agreement between teams in the decision to delegate or skill share clinical tasks, thereby determining the potential applicability to other services. Conclusions: Strong consistency was apparent for the clinical tasks undertaken by the two cancer care AH teams, with moderate agreement for the frequency of tasks performed. The proportion of tasks considered appropriate for skill sharing and/or delegation was similar, although variation at the task level was apparent. Further research is warranted to examine the range of factors that affect the decision to skill share or delegate.

Oncology Nurse Practitioner Role
Author(s): Mackey
Source: Clinical Journal of Oncology Nursing 22(5)
Publication date: October 2018
As the need for cancer care in the United States continues to grow with advances in treatment options, aging of the population, changing workforce demographics, and new cancer care delivery models, ONPs will be integral to the delivery of high-quality care. Efforts to promote their practice at the fullest extent of the license and across various cancer care settings are imperative. Resources should be devoted to ONP education, onboarding, and retention to ensure that they not only are able to effectively integrate themselves into the healthcare system, but also establish themselves as leaders of the interprofessional team.

The Hidden Costs of Medical Education and the Impact on Oncology Workforce Diversity
Author(s): Vapiwala and Winkfield
Source: JAMA Oncology 4(3)
Publication date: March 2018
The staggering burden of US physician debt, combined with the demands of our proliferating cancer patient census, documentation requirements, and regulatory hurdles, are leading to staggering rates of depersonalization and emotional exhaustion among oncologists. These stressors, magnified by a broken health care system that has become a political football, can leave many oncologists lamenting the gradual transformation of a noble career into one fraught with uncertainty, bureaucratic checkboxes, and diminished checking accounts.

Physician Training in Cancer Prevention and Control: A Population Health Imperative
Author(s): Moore and Goodman
Source: American Journal of Preventative Medicine 54(3)
Publication date: March 2018
Cancer is the second leading cause of morbidity and mortality in the U.S. Although reducing the number of new cancer cases is a national health goal, the continuing growth of the older adult population ensures that the burden of cancer will increase. Despite documentation of the shortage of oncologists to meet the growing need, relatively limited attention has been focused on increasing the physician workforce trained in the prevention and control of cancer.

What Competencies Are Required for Oncology Nurse Generalists?
Author(s): Becze
Source: ONS Voice
Publication date: January 2018
The article offers suggestions to oncology nurse to ensure high-quality care. Topics discussed include training programs that focus on increasing and building competency can strengthen and multiply the workforce of nurses; need of performance goals for themselves and engage in learning opportunities to

achieve those goals; and oncology nurses integrate patient-centered care across cancer trajectory.

Building A High Quality Oncology Nursing Workforce Through Lifelong Learning: The De Souza Model
Author(s): Esplen et al.
Source: International Journal of Nursing Education Scholarship
Publication date: January 2018
Cancer is one of the leading causes of death in the world. Along with increased new cases, cancer care has become increasingly complex due to advances in diagnostics and treatments, greater survival, and new models of palliative care. Nurses are a critical resource for cancer patients and their families. Their roles and responsibilities are expanding across the cancer care continuum, calling for specialized training and support. Formal education prepares nurses for entry level of practice, however, it does not provide the specialized competencies required for quality care of cancer patients. There is urgent need to align the educational system to the demands of the health care system, ease transition from formal academic systems to care settings, and to instil a philosophy of lifelong learning. We describe a model of education developed by de Souza Institute in Canada, based on the Novice to Expert specialty training framework, and its success in offering structured oncology continuing education training to nurses, from undergraduate levels to continued career development in the clinical setting. This model may have global relevance, given the challenge in managing the demand for high quality care in all disease areas and in keeping pace with the emerging advances in technologies.

What is important for student nurses to know about cancer treatment and care: a qualitative study of student nurses' and stakeholder perspectives
Author(s): Edwards et al.
Source: Journal of Clinical Nursing 26
Publication date: July 2017
AIMS AND OBJECTIVES: To explore the views of student nurses' and stakeholders of what is important for student nurses to know about cancer treatment and care.
CONCLUSIONS: Collaborative working with people affected by cancer and educationalists has allowed the patient and carer experience to be placed at the centre of the undergraduate cancer education.

Social networks and expertise development for Australian breast radiologists
Author(s): Taba et al.
Source: BMC Health Services Research 17(131)
Publication date: February 2017
In this study, we explore the nexus between social networks and expertise development of Australian breast radiologists. Background literature has shown that a lack of appropriate social networks and interaction among certain professional group(s) may be an obstacle for knowledge acquisition, information flow and expertise sharing. To date there have not been any systematic studies investigating how social networks and expertise development are interconnected and whether this leads to improved performance for breast radiologists. We argue that radiologists' and, in particular, breast radiologists' work performance, needs to be explored not only through individual numerical characteristics but also by analysing the social context and peer support networks in which they operate and we identify multidisciplinary care as a core entity of social learning.

Work engagement in cancer care: The power of co-worker and supervisor support
Author(s): Poulsen et al.
Source: European Journal of Oncology Nursing 21

Publication date: April 2016
Co-worker and supervisor support can provide knowledge, advice and expertise which may improve motivation, confidence and skills. This exploratory study aimed to examine the association of co-worker and supervisor support, and other socio-demographic and practice variables with work engagement for cancer workers. The study surveyed 573 cancer workers in Queensland (response rate 56%). Conclusions This study emphasises that health care managers need to promote co-worker and supervisor support in order to optimise work engagement with special attention to those who are not directly involved in patient care.

Workforce

Using national data to model the New Zealand radiation oncology workforce.
Item Type: Journal Article
Authors: Dunn, Alex;Costello, Shaun;Imlach, Fiona;Jo, Emmanuel;Gurney, Jason;Simpson, Rose and Sarfati, Diana
Publication Date: Aug ,2022
Journal: Journal of Medical Imaging & Radiation Oncology 66(5), pp. 708-716
Introduction: Demand for radiation therapy is expected to increase over time. In Aotearoa/New Zealand, the radiation oncology workforce experiences high numbers of clinical hours but an intervention rate that is lower than in comparable countries, suggesting unmet treatment need. Accurate models on the supply and demand for radiation oncologists (ROs) are needed to ensure adequate staffing levels. Methods: We developed a demand model that predicted the future number of ROs required, using national data from the Radiation Oncology Collection (ROC) and a survey of ROs. Radiation therapy intervention and retreatment rates (IR/RTRs), and benign and non-cancer conditions being treated, were derived from the ROC and applied to Census population projections. Survey data provided definitions of treatment by complexity, time spent in different activities and time available for work. Results were linked to radiation oncology workforce forecasts from a supply model developed by the Ministry of Health. Results: The demand model showed that 85 ROs would be needed in 2031, if current IR/RTRs were maintained, an increase from 68 in 2021. The supply model predicted a decrease in ROs over time, leaving a significant shortfall. Model parameters could be modified to assess the impact of workforce or practice changes; more ROs would be needed if average working hours reduced or IR/RTRs increased. Conclusion: Workforce models based on robust data collections are an important tool for workforce planning. The RO demand model presented here combines detailed information on treatment and work activities to provide credible estimates that can be used to inform actions on training, recruitment and retention.

The workforce challenge now facing cancer nursing Abstract only*
Item Type: Journal Article
The workforce challenge now facing cancer nursing
Publication Date: 2022
Journal: Cancer Nursing Practice 21(2), pp. 5
Abstract: In January, I was asked by Macmillan Cancer Support to present evidence to the Commons health and social care committee's inquiry into cancer services. The inquiry is set to establish why cancer outcomes in England continue to lag behind those of comparable countries and the impact of disruption to cancer services during the COVID-19 pandemic.

Distribution of the head and neck surgical oncology workforce in the United States Abstract only*
Item Type: Journal Article
Authors: Talwar, Abhinav;Gordon, Alex J.;Bewley, Arnaud

F.;Fancy, Tanya;Lydiatt, William M.;Weed, Donald;Moore, Michael G. and Givi, Babak
Publication Date: 2022
Journal: Head & Neck 44(11), pp. 2537-2544
Background: The recent trends in education and geographic distribution of the head and neck surgery workforce have not been studied extensively. Methods: We reviewed publicly available sources to locate all fellowship-trained head and neck surgeons and recent graduates. The number of surgeons in each state was compared against head and neck cancer incidence data from the Centers for Disease Control. Results: The number of graduates increased annually by 1 per 100 000 000 people from 2011-2020. The average number of fellowship-trained surgeons per state was 10 (SD: 12). The average number of new head and neck cancer cases per surgeon was 247 (SD: 135). Ten states (20%) had cases >1 SD above the national average/surgeon, while 3 (6%) had cases >1 SD below the national average. Conclusion: Head and neck surgeons are located in most states, but not uniformly. Most states have approximately average density of surgeons; however, several states are outliers.

Building a Sustainable and Resilient Cancer Nursing Workforce: The Power of Story.
Item Type: Journal Article
Authors: Yates, Patsy
Publication Date: 2022
Journal: Cancer Nursing 45(3), pp. 249-250
Last week, I was privileged to conduct a series of interviews with 4 leaders in cancer nursing from different parts of the world. The interviews were presented as part of the final session of the virtual International Conference on Cancer Nursing that was hosted by the International Society of Nurses in Cancer Care. The aim of the session was to explore these nurses' perspectives on the impact of the COVID-19 pandemic on nurses and people affected by cancer, as well as what needs to be done to ensure a sustainable nursing workforce as we face the growing burden of cancer across the globe.

Distribution of the workforce involved in cancer care: a systematic review of the literature
Author(s): Trapani et al.
Source: ESMO Open 6(6)
Publication date: December 2021
Background: A skilled health workforce is instrumental for the delivery of multidisciplinary cancer care and in turn a critical component of the health systems. There is, however, a paucity of data on the vast inequalities in cancer workforce distribution, globally. The aim of this study is to describe the global distribution and density of the health care workforce involved in multidisciplinary cancer management. Methods: We carried out a systematic review of the literature to determine ratios of health workers in each occupation involved in cancer care per 100 000 population and per 100 cancer patients (PROSPERO: protocol CRD42018095414). Results: We identified 33 eligible papers; a majority were cross-sectional surveys (n = 16). The analysis of the ratios of health providers per population and per patients revealed deep gaps across the income areas, withnurs gradients of workforce density, highest in high-income countries versus low-income areas. Benchmark estimates of optimal workforce availability were provided in a secondary research analysis: mainly high-income countries reported workforce capacities closer to benchmark estimates. A paucity of literature was defined for critical health providers, including for pediatric oncology, surgical oncology, and cancer nurses. Conclusion: The availability and distribution of the cancer workforce is heterogeneous, and wide gaps are described worldwide. This is the first systematic review on this topic. These results can inform policy formulation and modelling for capacity building and scaleup.

A look at the gynecologic oncologist workforce - Are we meeting patient demand?. Abstract only*
Item Type: Journal Article
Authors: Ackroyd, Sarah A.;Shih, Ya-Chen Tina;Kim, Bumyang;Lee, Nita K. and Halpern, Michael T.
Publication Date: 2021
Journal: Gynecologic Oncology 163(2), pp. 229-236
Objective: to examine the geographic distribution of gynecologic oncologists (GO) and assess if the GO workforce is meeting the demand for oncology services for patients with gynecologic cancers. Methods: We identified GO by National Provider Identifiers (NPI) and calculated county-level density of GO. County-level gynecologic cancer rates were derived from the U.S. Cancer Statistics to represent demand for GO services. A spatial data plot compared GO workforce to gynecologic cancer service demand. U.S. census county-level demographic information was collected and compared. Results: In 2019, 1527 GO had a registered NPI. Of 3142 counties in the US, 2864 (91.2%) counties had no GO in their local county and 1943 (61.8%) counties had no GO in local or adjacent (neighboring) counties. As the gynecologic cancer rate increases (described in quintiles) in counties, there are fewer counties without a GO or adjacent GO. However, county-level GO density (number of GO per 100,000 women) did not significantly increase as the county-level incidence of gynecologic cancer increased (r = -0.12, p = 0.06)… Women living in counties with the highest gynecologic cancer rates and without access to a GO were more likely to reside in a rural area where residents had a lower median income and were predominately of White race. Conclusion: There are a significant number of counties in the U.S. without a GO. As county-level gynecologic cancer incidence increased, the proportion of counties without a GO decreased; GO density did not increase with increasing cancer rates. Rural counties with high gynecologic incidence rates are underserved by GO. This information can inform initiatives to improve outreach and collaboration to better meet the needs of patients in different geographic areas.

The impact of the aging population and incidence of cancer on future projections of general surgical workforce needs
Author(s):Ellison et al.
Source: Surgery 163(3)
Publication date: March 2018
Assessments of the future general surgery workforce continue to project substantial shortages of general surgeons. The general surgery workforce is targeted currently to maintain a surgeon/population ratio of 6.5-7.5/100,000. The analysis supports the hypothesis that an increasing incidence of cancer in the future will exceed the potential capacity of the general surgeon workforce. Regionalization of cancer care may be one solution to projected access issues.

A scoping review of the nurse practitioner workforce in oncology
Author(s): Coombs et al.
Source: Cancer Medicine
Publication date: August 2016
The quality of cancer care may be compromised in the near future because of work force issues. Several factors will impact the oncology health provider work force: an aging population, an increase in the number of cancer survivors, and expansion of health care coverage for the previously uninsured. Results demonstrated that NPs are utilized in both inpatient and outpatient settings, across all malignancy types and in a variety of roles. Academic institutions were strongly represented in all relevant studies, a finding that may reflect the Accreditation Council for Graduate Medical Education (ACGME) duty work hour limitations. There was no pattern associated with state scope of practice and NP representation in this scoping review. Many of the studies reviewed relied on subjective information,

or represented a very small number of NPs. There is an obvious need for an objective analysis of the amount of care provided by oncology NPs.

Workforce Planning

Canadian Perspectives on Radiation Oncologist Workforce Planning and the Job Market. Abstract only*
Item Type: Journal Article
Authors: Keilty, Dana;Malik, Nauman;Ringash, Jolie;Halperin, Ross;Brundage, Michael;Doll, Corinne M. and Loewen, Shaun K.
Publication Date: 2022
Journal: International Journal of Radiation Oncology, Biology, Physics 112(2), pp. 282-284
Despite fundamental differences in the organization and funding of health care systems in Canada and the United States, these neighboring North American countries have both experienced cyclical patterns of radiation oncology (RO) supply-demand imbalance in the physician workforce. A recent academic debate, presented by Shah and Royce 1 and Potters, 2 proposes RO training program regulation and reform to address a perceived oversupply situation in the United States. Social media and the academic literature have focused on workforce concerns, citing the increasing number of RO trainee positions and training programs, decreasing medical student interest in the discipline, changes in fellowship patterns, uncertainty due to the COVID-19 pandemic, declining radiation therapy utilization, and payment model changes. 1 Despite growing unrest and calls for action, 3 the vast majority of US RO graduates in 2020 received multiple job interviews and employment offers before the end of residency and 89% were satisfied with the offers they received, suggesting graduates' employment prospects in the United States met their expectations. [4]

Tracking the Workforce 2020-2030: Making the Case for a Cancer Workforce Registry.
Item Type: Journal Article
Authors: Srivastava, Archita;Jalink, Matthew;de Moraes, Fabio Ynoe;Booth, Christopher M.;Berry, Scott R.;Rubagumya, Fidel;Roitberg, Felipe;Sengar, Manju and Hammad, Nazik
Publication Date: 2021v
Journal: JCO Global Oncology 7, pp. 925-933
Existing literature has described the projected increase in cancer incidence and the associated deficiencies in the cancer workforce. However, there is currently a lack of research into the necessary policy and planning steps that can be taken to mitigate this issue. Herein, we review current literature in this space and highlight the importance of implementing oncology workforce registries. We propose the establishment of cancer workforce registries using the WHO Minimum Data Set for Health Workforce Registry by adapting the data set to suit the multidisciplinary nature of the cancer workforce. The cancer workforce registry will track the trends of the workforce, so that evidence can drive decisions at the policy level. The oncology community needs to develop and optimize methods to collect information for these registries. National cancer societies are likely to continue to lead such efforts, but ministries of health, licensing bodies, and academic institutions should contribute and collaborate.

Competency Frameworks

Career Pathway and Education Framework for Cancer Nursing
Source: Royal College of Nursing
Publication date: March 2022
The RCN's Career Pathway and Education Framework for Cancer Nursing for UK nursing staff incorporates cancer-specific nursing outcomes. The framework and outcomes are intended to be used as part of professional, educational and workforce development to support improvements in the delivery of high-quality care to people affected by cancer.

Career and Education Framework for Children and Young People (CYP) Cancer Nursing V3.0 Guidance
Source: Young Lives vs Cancer; Royal College of Nursing and European Oncology Nursing Society
Publication date: 2022
The framework is intended for use by nurses who provide care to children and young people (CYP) with cancer, or cancer-like disease, in paediatric services, or services that are unbound by age which may encounter CYP with cancer. It includes CYP cancer nursing in multiple settings including principal treatment centres, shared care units, community care and generalist settings such as emergency departments and wards where CYP with cancer may occasionally be located for surgery or to manage oncology capacity overflow (outliers).

Developing a Cancer CNS Capabilities Framework in the North West
Source: Skills for Health
Publication date: August 2021
Cancer CNS are a key contact for patients to support them during their treatment. They are the main person in charge of patients' care and are able to address important questions about their diagnosis, treatment, and support. For CNSs to thrive in their roles, and organisations and patients to fully benefit from their knowledge and experience, it is important that managers and workforce departments understand the scope of the role. In 2017, UKONS with the Royal College of Nursing (RCN) developed the Careers and Education Framework for Cancer Nursing, which aimed to provide some clarification of the CNS role; at the time of writing of this report (June 2021), it is being updated1 . Additionally, Macmillan Cancer Support has also developed the Macmillan Competency Framework for Nurses Supporting People Living With Cancer and Affected by Cancer2 . Despite this, inconsistencies remain.

The Macmillan Allied Health Professions Competence Framework for those working with people affected by cancer
Source: Macmillan Cancer Support
Publication date: December 2020
The primary intention of the MAHPCF is to support Allied Health Professional managers, teams and individuals in both specialist and general health and social care settings by identifying appropriate competences in cancer care. The information contained within the framework should assist individuals and organisations to use competence to support recruitment, workforce planning and development, career progression and role design, and to help them consider both individual and team needs to ensure that people living with cancer are being effectively supported.

The Macmillan Competency Framework for Nurses (MCFN) supporting people living with and affected by cancer
Source: Macmillan Cancer Support
Publication date: November 2020
This competency framework is for nurses who support people living with or affected by cancer. It can be used in any adult care setting and alongside other established frameworks to

improve care for patients. The competency framework focuses on:

- professional skills
- knowledge
- behavioural skills
- experience and qualifications.

The EONS Cancer Nursing Education Framework
Source: European Oncology Nursing Society
Publication date: 2018
The EONS Cancer Nursing Education Framework comprises eight modules which identify the fundamental knowledge and skills required for post-registration nurses working with people affected by cancer (PABC). The overall purpose of this Framework is to provide guidance regarding the knowledge, skills and competencies required by nurses who care for PABC as part of multi-professional teams across Europe. This Framework is particularly intended to provide guidance for structuring the learning content of cancer nursing programmes to those individuals and teams who are involved in the education, training and professional development of cancer nurses across Europe.

End of Life Care Core Skills Education and Training Framework
Source: Health Education England, Skills for Health and Skills for Care
Publication date: February 2017
The framework builds on the Government's National End of Life Care Strategy and response to the Review of End of Life Care, which stated that everyone has access to 'high quality, personalised end of life care built around their needs'. This person-centred approach is key to current thinking and policy around end of life care: considering each patient's individual needs, preferences and available support networks and involving them and their families and carers in decisions around their care.

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