ROYAL PHARMACEUTICAL SOCIETY

10-Year Cancer Plan: Call for Evidence

Royal Pharmaceutical Society Submission

Workforce

The pharmacy workforce has a lot to offer in terms of supporting the ambitions and delivery of the 10-year cancer plan.

Community pharmacy:
Community pharmacists play a key role in identifying patients with 'red flag symptoms' and referring patients to their GPs for a potential early diagnosis of cancer as well as supporting patients through all stages of their cancer journey. This represents an opportunity to use community pharmacy services to support wider NHS strategic objectives and inform improvements in patient care.

In general, the community pharmacy workforce is underutilised despite a huge potential role in promoting healthy lifestyles to reduce cancer risk, encouraging participation in cancer screening programmes, early diagnosis of cancer as well as supporting patients living with and beyond cancer alongside the supply of oral chemotherapies.

Funding to upskill community pharmacists in this role and a commitment to embed this into the community pharmacy contract would help to realise this potential along with funding and commitment to expand cancer medicines into the New Medicine Service long term. There is currently no facility for community pharmacists to directly refer patients into rapid diagnostic services which would very effectively speed up the pathway to diagnosis.

There needs to be more acceptance of the role community pharmacists can play in supporting people with cancer from policy makers, commissioners and other healthcare professionals alike.

For further information on the role of community pharmacists in the prevention and early detection of cancer, please see the following articles:

- Lewis, J 'How to support cancer patients in community pharmacies' The Pharmaceutical Journal, March 2017, Vol 298, No 7899;298(7899) access vial: https://pharmaceutical-journal.com/article/ld/how-to-support-cancer-patients-in-community-pharmacies
- Lewis, J 'Identifying patients with suspected cancer: red flags and referral' The Pharmaceutical Journal, 2018; Vol 298, No 7899 access via: https://pharmaceutical-journal.com/article/ld/identifying-patients-with-suspected-cancer-red-flags-and-referral
- The Royal Pharmaceutical Society, 2020 'Utilising community pharmacists to support people with cancer' access via: 00207_001a_2001_Cancer_Paper WEB.pdf (rpharms.com)
- BOPA have produced an e-learning programme aimed at upskilling and empowering community pharmacy staff which can be found on our website: Showreel: Let's Communicate Cancer

PCN / Practice pharmacists:
Practice pharmacists will also play a role in early diagnosis, although quite often, by the time a patient comes to the GP practice they are often not at an early diagnosis stage.

Practice pharmacists will play a significant role in optimising medicines for patients with cancer, looking at the person holistically, including any other long term, or acute conditions, that the person may have. This may be part of a formal Structured Medication Review or as part of a general appointment with the practice

pharmacist. This will also apply to PCN pharmacist who are working in other care settings such as care homes, or in hospices providing end of life care.

Hospital Pharmacy:
Specialised oncology pharmacists play an important role in hospitals and have moved away from the traditional operational role of production and manufacture of anti-cancer medicines. They work with the medical and nursing staff to maximise the benefits of drug therapy while trying to minimise toxicities and educate people with cancer about what to expect during treatment and the associated side-effects. They also provide advice on how to manage complications of cancer treatment and can often independently review patients on systemic anticancer therapies (SACT) and prescribe both anticancer medicines and supportive medicines. In the inpatient setting the specialised oncology pharmacist is integral in the management of the inpatient medication plan, right through to the medication plan that a patient will be discharged with

There is little evidence of some of the commitments in the NHS Long Term Plan, one such example being: "We will also do more to nurture the next generation of leaders by more systematically identifying, developing and supporting those with the capability and ambition to reach the most senior levels of the service".

Recent workforce reports have revealed a 17% shortage of oncologist posts across England. These shortages are in the context of increasing patient numbers and increases in patients surviving further into their journey with cancer. The cumulative effect of these advances in treatment mean that cancer is increasingly becoming a chronic condition, with patients requiring long term support from oncology services.

Pharmacists are well positioned to reduce the impact of the documented shortages in oncologists. Oncology pharmacists were among the early adopters of the role of the pharmacist independent prescriber role. (PIP). Utilising professional expertise in medicines, many pharmacists are transitioning into advanced practice roles where they assume responsibility for treatment and provide holistic care for patients with great success, as advocated in the NHS 5 years forward view report. There has been a proliferation in consultant oncology pharmacists' posts across England within the past 5 years, with a range of well documented benefits to patient care and workflow within organisations where these posts are funded. Expansion of advanced practice and consultant pharmacist roles would increase capacity within the cancer multi-disciplinary team and help alleviate many of the current challenges facing cancer services. However, the number of such posts are still limited across NHS England and funding arrangements vary significantly across the NHS. Job planning of these roles in a similar fashion to medical staffing would improve the sustainability of these roles.

To support cancer pharmacists to transition into these roles, and realise the benefits that they can provide, it is important to identify and implement suitable training pathways at local, regional and national levels. Current training pathways should be optimised to increase provision of formal academic training at postgraduate level, such as MSc courses in oncology, to enhance capability of pharmacists and provide assurance of competence to support enhanced patient care. These changes should be initiated in conjunction with increased access to advanced practice qualifications to enhance the clinical skillset of pharmacists to allow them to assume greater responsibility for patient care and help address many of the challenges facing cancer services.

The oncology pharmacy workforce also includes other groups, such as pharmacy technicians and non-registrant staff, all of whom have provide services which have a significant impact on the care of cancer patients

Supporting documents include:

- Building Back Cancer Services in England. Institute for Public Policy research. 2021, September. https://www.ippr.org/files/2021-09/building-back-cancer-services.pdf
- NHS Five Year Forward View. NHS England. 2014. https://www.england.nhs.uk/five-year-forward-view/

- Five Year Forward View: A Briefing for Members. The Royal Pharmaceutical Society. 2016, March
- Consultant Pharmacist Guidance: Consultant Pharmacist Short life Working Group. 2020, January. https://www.hee.nhs.uk/sites/default/files/documents/Consultant%20Pharmacist%20Guidance%20Final%20Jan2020.pdf
- Full team Ahead by Cancer Research UK https://www.cancerresearchuk.org/about-us/we-develop-policy/our-policy-on-cancer-services/non-surgical-cancer-treatments-workforce

Overall, the pharmacy workforce in all sectors is facing significant workforce pressures due to increase in demand, impact of COVID and staff health and wellbeing. The lack of workforce planning and the implementation of strategies to alleviate the workforce pressures has meant the pharmacy workforce is in the frustrating position of being ideally placed to improve the care of cancer patients but without the resources to fulfil these aspirations to the fullest benefit of the cancer patient.

Early Diagnosis and Prevention

Community pharmacies provide a convenient and accessible place for people to present with symptoms that they may be concerned about. This could be a pivotal point at which people could be appropriately referred into either general practice or maybe in the future, directly into secondary care for further clinical assessment and diagnosis. We are aware that such a service is currently being explored but we would welcome a phased approach to this service rather than initiating it as a pilot.

Community pharmacy services are well positioned to play a greater role in patients' journey to diagnosis and support identification of cancers at an earlier stage of disease. Published evidence demonstrates that 90% of the population of England live within a 20-minute walk of a community pharmacy, making them one of the most readily accessible healthcare resources to the public. Community pharmacies are currently actively involved in public health campaigns which promote lifestyle interventions which reduce patients' risk of developing cancers, alongside several other serious healthcare conditions. Community pharmacy services also have an established role in supporting smoking cessation services within the portfolio of primary care services and has a demonstrated history of success in delivering this intervention.

The role of the established network of community pharmacies in England could be expanded to support earlier identification of cancers and help the NHS realise its ambitions of increasing the proportion of cancers diagnosed at stages 1 and 2. A number of published studies suggest that patients with symptoms of possible cancers, but who have not yet received a formal diagnosis, present to community pharmacies for treatment and advice regarding these "red flag" symptoms. To improve the rates at which such patients are identified and appropriately referred to diagnostic services the British Oncology Pharmacy Association (BOPA) have developed the Let's Communicate Cancer programme which is a dedicated training platform aimed to provide community pharmacy staff with a basic set of skills to facilitate increased ability to identify patients with such symptoms and provide them with the tools to hold effective consultations.

The potential scope of community pharmacy as a venue to support these ambitions has been recognised by Health Education England, who are currently supporting a study in conjunction with BOPA around London and the Southeast to identify the impact that the Let's Communicate Cancer programme delivers regarding patient care. While further development of this service is required, there is clear scope for community pharmacy services to take a more active part in this process.

Direct referral to rapid diagnostic services by either community or PCN pharmacists would help meet the 28-day target for definitive diagnosis of cancer, save time and reduce GP workload.

The data held in community pharmacies may also be valuable in the early detection of cancers. Cancer Research UK are undertaking a study which is exploring the use of purchasing data, via a store loyalty card, to identify early diagnosis of cancer[1].

[1] https://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-study-looking-at-how-women-manage-symptoms-that-might-be-ovarian-cancer-cancer-loyalty-card-study

Community pharmacists can also support national messages to raise awareness of different cancers. For example, in Spain, Community pharmacists disseminate patient education and awareness materials and use their visible local network of pharmacies to actively promote sun protection recommendations and information to the public on pan-European Day for the Prevention of Skin Cancer.

The need to use sun protection is an important message and community pharmacies can play a significant role in ensuring this message is relayed to the public. Pharmacists can also attend local schools to help educate around the need for sun protection.

Community pharmacies are also ideally placed to support cancer screening programmes. In County Kerry in Ireland, a small pilot was carried out in 2019 in community pharmacies aimed at improving uptake rates of bowel screening. It demonstrated that bowel screening kit return rates following pharmacy intervention were 74%, compared with 38% national return rate.[2]

Community pharmacists can help to assess moles and pigmented lesions that a patient may be worried about and can help identify any that might be suspicious and refer the patient directly to secondary care. Early identification and treatment of malignant melanoma is crucial to prevent mortality and a mole screening service in the community pharmacy setting has been evaluated. An estimated 0.7% of scans taken as part of the service led to a confirmed diagnosis of malignant melanoma. This service evaluation has shown that a mole scanning service available within community pharmacies is effective at triaging patients and ultimately playing a part in identifying diagnoses of malignant melanoma[3].

Living well with and Beyond Cancer

The commitment '*where appropriate every person diagnosed with cancer will have access to personalised care, including needs assessment, a care plan and health and wellbeing information and support by 2021'* gives a clear deadline but it doesn't provide clear metrics of how to determine whether the commitment has been met or not. Staffing resource is a particular issue with regards to achieving this commitment. For example, the personalised care discussions within secondary care are often undertaken by cancer clinical nurse specialists (CNSs). This is in addition to their regular clinical work, which has to be prioritised, leaving limited time to ensure holistic needs assessments (HNAs), care plans and health and wellbeing information are provided to patients.

NHS Trusts were not provided with specific government funding to support this commitment. Funding is taken either from existing budgets or from charities such as Macmillan. Charity-funded roles are often "pump primed" for a few years to embed services and assess output but even when clear benefits have been demonstrated, the Trust is often not able to continue to fund these roles making the commitments described unsustainable.

There is no doubt that patients have benefited from HNAs, care plans and health and wellbeing events (pre-COVID) and a supply of health and wellbeing information. The commitment was sufficiently specific and wide enough in scope, with an appropriate level of ambition, however the measures need to be clearer, and the reporting mechanism more visible. The impact of the commitment has been limited by insufficient funding for staffing and IT resources.

Pharmacy professionals have a significant role to play in delivering services which support patients' health and wellbeing throughout treatment and helping them after active treatment has finished. As described earlier, survival rates following a cancer diagnosis have improved significantly, with more patients than ever surviving longer with a cancer diagnosis. Historically, cancer services have been centralised in secondary care hospital trusts with limited provision made for delivery of more primary care and community-based services.

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[2] https://www.researchgate.net/publication/333171977_A_Community_Pharmacy_Based_Pilot_Project_for_BowelScreen

[3] Kirkdale C, Archer Z, Thornley T, Wright D, Valeur M, Gourlay N, Ayerst K. Accessing Mole-Scanning through Community Pharmacy: A Pilot Service in Collaboration with Dermatology Specialists. Pharmacy 2020, 8(4), 231; https://doi.org/10.3390/pharmacy8040231

Community pharmacists add value by supporting people taking anti-cancer medicines and helping them to navigate the wider health and social care system and to manage and balance side effects with treatment. Boot and Macmillan have worked together to upskill a number of pharmacists to become Boots Macmillan Information Pharmacists (BMIP). Over the last 10 years over 4000 Boots Macmillan Information Pharmacists have been trained in cancer care in the community. These pharmacists are Boots pharmacists who've had extra training, developed by Macmillan and Boots, to support people affected by cancer. Their extra training helps them to understand the needs of cancer patients, which may not just be medical. They can also signpost to more specialist sources of information and support, both locally and nationally, depending on the person's needs[4].

Utilising primary care pharmacy services to optimise elements of patients' care, such as control of nausea and vomiting associated with chemotherapy, may help to increase capacity within acute secondary care settings and improve the patient experience by improving access to less complex interventions.

Primary care pharmacy staff are also well positioned to optimise the care that patients receive for other non-malignant, co-existing conditions which cancer treatments often adversely impact. With the increase in survival rates following a cancer diagnosis it is more important than ever to ensure healthcare services implement holistic reviews considering each patients' co-morbidities and identify where interventions can improve outcomes and quality of life. In secondary care, specialist teams are not well-equipped to manage conditions outside of their remit.

Currently there is not a lot of information that supports the role of community pharmacists in this area. However, a study looking at identifying the scope for developing a community pharmacist-led intervention to provide support and improve health outcomes for breast cancer survivors has been published[5]. This study identifies considerable scope for community pharmacists to take on a larger role in breast cancer survivorship services, highlighting several potential features of future interventions. Increased awareness of survivor care needs amongst community pharmacists is needed to encourage proactive conversations, networking activities and further training.

Oral anti-cancer agents prevent many people with cancer from numerous hospital visits, allowing them to obtain their medicines from their local community pharmacy. People taking these oral medicines still require support, as many of these agents can cause significant side effects and interactions. A study noted that more than half of ambulatory patients with cancer had at least one potential drug interaction. One-third of ambulatory patients with cancer had a major potential drug interaction that could result in serious clinical consequences[6]. Community and practice-based pharmacists are ideally placed within primary care to help these people and can explain any concerning signs and symptoms, particularly symptoms of infection and explain how their medicines should be taken. They can provide reassurance as many people are worried about the use of these medicines and they can also counsel people on safe handling and storage of anti-cancer medicines. Lastly, they can review side effects that might occur and help people manage these alongside their symptoms. A study in 2019 pointed to the feasibility of operating a larger-scale pilot trial of an oral anti-cancer medicines referral pathway to community pharmacies[7]. An integrated model of service delivery between NHS trusts and pharmacies would further facilitate the safe administration of oral anticancer medicines in the community

In secondary care, the introduction of nurse and pharmacist-led review clinics can allow for a more holistic review of patients undergoing cancer treatment while reducing pressure on busy medical outpatient clinics.

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[4] https://www.boots.com/health-pharmacy-advice/macmillan/boots-macmillan-information-pharmacist

[5] Tutt L, Thornley T, Chen LC, Anderson C. Survivor perspectives on the role of the community pharmacist in breast cancer services. Research in Social and Administrative Pharmacy (2018). 14;8,e31

[6] 23.van Leeuwen R W F, Brundel D H S, Neef C, van Gelder T, Mathijssen R H J, Burger D M, Jansman F G A. Prevalence of potential drug-drug interactions in cancer patients treated with oral anticancer drugs. British journal of cancer. 2013;108:1071–1078

[7] Dalby, M., et al (2019) 'Feasibility of a referral pathway to community pharmacy for patients taking oral anticancer medication', *Cancer Nursing Practice*

Currently, these clinics tend to be run by nurse and pharmacist independent prescribers as an extension to their existing role. Skill-mix planning, backed up with sufficient funding for dedicated posts would enable wider access to these services.

Palliative care

People living with life-limiting conditions who are approaching the end of life must have timely access to medicines and clinical support from a skilled pharmacy team. They should expect to experience high quality, coordinated care, approaching death in comfort, surrounded by those important to them and in the setting of their choice.

Pharmacists and the pharmacy team have particularly important roles following a patient's diagnosis of a palliative illness to ensure that the medicines regimen is optimised, as well as to help coordinate the care and medicines supply for patients as they move from one care setting to another.

Pharmacists across a system can support the provision of pain treatment, special nutrition, and management of chemotherapy side-effects for palliative patients. Community pharmacists can provide a prompt and continuous service to patients by ensuring that a supply of specialist palliative care medicines is in stock in the pharmacy in order that prescriptions can be dispensed in a timely manner. Effective communication between the specialist palliative care prescriber / team and the community pharmacist should try to anticipate a patient's need for medication and plan accordingly.

A model for pharmaceutical palliative care in rural Scotland which is experience-based and funded by Macmillan Cancer Support has shown positive results. It has highlighted that patients experiencing pain from advanced cancer often still have unmet needs in terms of management and optimisation of the medicines. It indicates that patients were receptive to the idea of a targeted medicines consultation with a trained community pharmacist and were positive about this being carried out in a face-to-face setting or by telephone[8]. During 2021, all the BMIP received further training on palliative care and this allowed Boots to launch a Palliative Care Service which ensures a formulary of commonly used drugs in palliative care, expert advice to support patients and carers along with a stock checker for easier accessibility. As part of this Palliative Care Service, Boots is committing to maintaining stock of medicines on this list, or formulary, at over 2,000 of its pharmacies with an NHS contract.

In Scotland, they have also established a Community Pharmacy Palliative Care Network which provides value to aspects of the medical supply chain; access to training; opportunity to discuss good clinical practice; and connection to specialists and multidisciplinary teams. The service demonstrates that relationship building between nurses and community pharmacists is needed for a better understanding of patient needs and timely medicine supply[9]

It is estimated that 1 in 3 cancer patients are at risk of malnutrition and that the prevalence of malnutrition is over 70% in advanced cancer patients, which impacts negatively on survival and quality of life. Pharmacists can play a key role in prevention, early identification, treatment and referral of malnutrition. They also have the knowledge to advise on types and usage of nutritional supplements and medical nutrition in primary care when required. [10]

Innovation and Technology

In the past 10 years there has been an exponential growth in the number of cancer medicines available leading to substantial patient benefit. However, this has come with significant capacity impact for pharmacy oncology services.

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[8] Akram, G. Corcoran, ED. Bennie, M. Developing a model for pharma-ceutical palliative care in rural areas – experiences from Scotland. Pharmacy. 2017. 5(1)6 https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC5419387/

[9] https://www.palliativecareggc.org.uk/wp-content/uploads/2013/10/Macmillan-Full-Report-31012012-FINAL.pdf

[10] Prevost, V., and M-C. GRACH. "Nutritional support and quality of life in cancer patients undergoing palliative care." European journal of cancer care 21.5 (2012): 581-590

The additional funding to implement new cancer medicines is generally focussed on the acquisition cost of the medicines with limited consideration of service costs so despite significant increases in cancer medicines funding this does not translate into increased service funding

One example of the growth in cancer medicines is the increased use of immunotherapies. In 2011 the first immunotherapy ipilimumab was approved for use in melanoma. As of 1st February 2022 there are seven immunotherapies utilised in nine different tumour sites and over 20 different indications. The benefits from these treatments can be seen in direct patient outcomes but the differences in toxicities and duration of time patients remain in treatments in comparison to traditional chemotherapy has caused challenges, not least within oncology pharmacy services. This is particularly seen within aseptic service compounding capacity (which is already insufficient to meet demand) and increased role of the PIP in clinics to review immunotherapy patients. The further expansion of immunotherapy into the adjuvant setting will only increase these challenges further.

Currently there are 168 guidelines, technology appraisals, and quality standards in relation to cancer in the NICE workplan. Adequate resource, estates and infrastructure are required to properly implement advanced therapies and immunotherapies.

Advanced therapy medicinal products (ATMP's) including CAR-T therapy pose a huge burden on NHS pharmacist resource due to the complex nature of these therapies. Pharmacy departments and highly skilled specialist pharmacists and chief pharmacists are required to ensure institutional readiness for implementation of ATMPs at an organisational, governance, regulatory and clinical level.

The medicines brought about by new technologies have undoubtedly improved patient outcomes, however resource implications as these therapies continue to expand outside of the haemato-oncology remit is huge. There are currently a number of ATMPs and CAR-T therapies in the UK pipeline for approval, some are license extensions and some new therapies. It is recognised that additional pharmacy resource is required to ensure these highly specialist and complex therapies are implemented safely into routine clinical practice.

The NHS has acknowledged the importance of genomic medicine services in diagnostic services to identify patients with high-risk conditions and inform treatment choices. Chemotherapy represents a treatment modality which carries a range of potential side effects with a growing body of evidence regarding treatment choices based upon patient genetic profiling. Recent commissioning of widespread DPYD testing to inform dosing for breast and bowel cancer patients has demonstrated the potential role for oncology pharmacists to utilise genetic assessment to ensure safe and effective use of chemotherapy agents. Extension of this principle to include testing for other genetic markers which inform dosing and treatment choices would build upon this work. To allow pharmacists to play a greater role in interpretation of genetic assessment results which inform treatment options it is important to establish and implement suitable training pathways. Current training pathways should be optimised to increase provision of formal academic training at postgraduate level, such as MSc courses in genomic medicine, to enhance capability of pharmacists and provide assurance of competence to support enhanced patient care..

Growth in the area of pharmacogenomics also presents an opportunity for pharmacists to lead in testing patients for genetic risk factors for cancer to support preventative measures, and in tailoring drug therapies to optimise efficacy. The introduction of technologies such as AI backed risk assessment and diagnostic programmes, or blood sample-based cancer testing will offer pharmacies new opportunities to contribute to health improvement. In the Netherlands, the Royal Dutch Pharmacists Association (KNMP) initiated a pilot in community pharmacies with the aim of demonstrating the impact of Pharmacogenomics (PGx) testing by community pharmacists on individual patients. Following development of evidence-based guidelines and having undergone appropriate training, pharmacists collected and interpreted PGx test results, discussed therapy optimisation with other healthcare providers and advised on changes to patients' pharmacotherapy. This led to interventions such as dose adjustments and therapy switches[11].

[11] KNMP Poster Pharmacogenomics: making on impact on patients – available from: https://www.knmp.nl/downloads/poster-pharmacogenom-ics.pdf

In the Netherlands they undertook a study to explore how best to implement PGx services within community pharmacy, considering potential barriers and enablers to service delivery and how to address them. The results add to the evidence in understanding how PGx can be delivered effectively within the community pharmacy environment. Training pharmacists in how to respond to patient queries and make clinical recommendations may enhance service provision further[12].

A further study in the UK in 2019 aimed to quantitatively estimate the volumes of medicines impacted by implementation of a population-level, pre-emptive pharmacogenetic screening programme for nine genes related to medicines frequently dispensed in primary care. A large community pharmacy database was analysed, and the study concluded that actionable drug-gene interactions frequently occur in UK primary care, with a large opportunity to optimise prescribing[13].

Granting access for treating healthcare professionals, including pharmacists, to all relevant patients' health information and the list of medication via the establishment of integrated eHealth solutions and digital communication tools, while respecting data protection and privacy rules is one of the key solutions to improving patient care. It is especially important to establish such good communication channels between community and hospital pharmacists in order to ensure successful med-cation reconciliation as part of the often frequent transitions of care for cancer patients. Integrated health and care records could lead to supporting healthcare professionals, including community pharmacists, to provide more personalised services and treatment to patients and robust, evidence-based information on issues related to therapies while promoting safe and rational medicines use.

[12]Thornley, T.; Esquivel, B.; Wright, D.J.; Dop, H.v.d.; Kirkdale, C.L.; Youssef, E. Implementation of a Pharmacogenomic Testing Service through Community Pharmacy in the Netherlands: Results from an Early Service Evaluation. *Pharmacy* **2021**, *9*, 38. https://doi.org/10.3390/pharmacy9010038

[13]Youssef E, Kirkdale CL, Wright DJ, Guchelaar HJ, Thornley T. Estimating the potential impact of implementing pre-emptive pharmacogenetic testing in primary care across the UK. Br J Clin Pharmacol. 2021 Jan 19. doi: 10.1111/bcp.14704. Epub ahead of print. PMID: 33464647.