Our Ref: CP/DF8266

17th January 2022

National Cancer Programme
NHS England
Skipton House
80 London Road
London SE1 6LH

Rt Hon Jeremy Hunt MP
Chair, Health and Social Care Committee
House of Commons
London
SW1A 0AA

Dear Jeremy,

Thank you for inviting us to provide evidence to the Health and Social Care Committee on the recovery of cancer services and delivery of the NHS Long Term Plan.

We are grateful to you and members of the Committee for the work you are doing to ensure we can improve survival and quality of life for all those affected by cancer and to maintain cancer services as a priority.

You asked us to provide further information on a number of matters discussed by the Health and Social Care Committee as set out below:

1. Achieving the early diagnosis ambition.
2. Regional variation in stage of diagnosis.
3. Key areas of innovation to contribute to improvement in survival.
4. Proportion of cancers diagnosed through each referral route, and trends over time.

We look forward to participating further in the inquiry as your work continues.

Kind regards,

Cally Palmer

Dame Cally Palmer
National Cancer Director

Professor Peter Johnson
National Clinical Director

1. Achieving the early diagnosis ambition

1.1 Our ambition is to match the best survival rates in Europe. This is defined as the improvement in five-year survival which would result if the UK was in the top 10% of European countries for all cancers included in the CONCORD study in 2028 (which includes 18 cancers and up to 31 European countries, depending on cancer type chosen). Our estimate takes into account expected baseline improvements in survival.

1.2 We are focusing on early diagnosis because it is a major determinant of survival and has the most potential to drive improvements in survival in the UK. The 2019 NHS Long Term Plan (LTP) was the first national cancer strategy to set a headline ambition for early diagnosis so that by 2028 75% of cancers will be diagnosed at an early stage. The LTP also includes a strong emphasis on faster diagnosis, and a new Faster Diagnosis Standard was introduced for the first time in 2021.

1.3 To meet the LTP survival ambition set in 2019 would require improving overall early diagnosis to 70% from around 55% in 2018. The proportion of all staged cancers diagnosed early was 54.5% in 2018 and had remained flat since data was first collected. The 75% early diagnosis ambition was intended to be stretching and to galvanise efforts across the cancer community to support early diagnosis.

1.4 There is no single intervention that will secure the early diagnosis ambition. Increasing early diagnosis depends on the successful delivery of different interventions to: encourage people with symptoms to present to health services earlier; proactively screen or monitor people, particularly those most at risk; and, improve the efficiency and effectiveness of the early stages of the cancer pathway (primary care and diagnostics).

1.5 Securing the ambition will depend on current and known interventions as well as innovation, including genuinely cutting-edge innovations like the GRAIL Galleri test and other similar markers of early cancer development that are in development. The NHS Cancer Programme has also run a £15m call for innovations – the first stage of a drive to accelerate the identification and introduction into clinical settings of innovations which will support the early diagnosis ambition.

2. Regional variation in stage at diagnosis

2.1 There is a significant degree of long-standing variation in early diagnosis rates across cancer types. Our early diagnosis ambition focuses on reducing variation in stage of diagnosis between tumour sites, shifting those cancers where early diagnosis is lowest.

2.2 We have prioritised actions to target some of the highest volume cancers where early diagnosis is lower. For example:

- introducing the faecal immunochemical test in the bowel cancer screening programme is expected to increase take up by 7%; and,
- the Targeted Lung Health Checks Programme (TLHC) which offers lung health checks to those aged 55 to 74 who are current or former smokers could diagnose around 7,700 additional cancers at an early stage each year by 2028.

However, delivering on the early diagnosis ambition will also mean making progress in lower volume cancers.

2.3 Regional variation is less significant than tumour site variation in stage of diagnosis. In 2017-19, if all CCGs had at least the same case-mix adjusted early diagnosis rate as the top 10% of CCGs, this would have increased the national early diagnosis rate by almost 2 percentage points. Nevertheless, within individual programmes we are seeking to tackle geographical variation. For example, the Lung Health Checks programme started first in the areas with some of the highest rates of mortality from lung cancer and we are maintaining this approach with our most recent introduction of screening for liver cancer. Tackling regional variation is also dependent on ensuring all areas have the diagnostic and treatment workforce needed to meet demand.

3. Key areas of innovation

3.1 The Long Term Plan early diagnosis ambition is purposefully stretching. It was designed in consultation with the cancer community to set the bar high to drive radical improvement, particularly at the beginning of the cancer pathway. Continuing innovation in cancer screening and diagnosis will be important in achieving the Long Term Plan ambition.

3.2 The Committee asked us to set out the areas which present the greatest opportunities for innovation in cancer services.

Novel screening tests

3.3 Tests are being developed to look for small amounts of DNA or proteins in the blood to detect asymptomatic cancers at an earlier stage. The NHS is working to harness this technology to improve cancer outcomes, in dialogue with various companies developing this technology, and in partnership with one (GRAIL) already.

3.4 We are working with GRAIL to develop more evidence on the potential of this technology. Two demonstration projects, which will run until 2023, are currently recruiting 165,000 people eligible participants in selected areas. If successful, these tests will then be extended to a wider population.

3.5 This is the first time that this technology has been used in a large-scale early diagnosis trial on a population without cancer symptoms. If this technology is successful, it could make a significant contribution to the increase in early diagnosis we want to see by 2028.

3.6 At the same time, we are also continuing to explore how to maximise the potential of targeted screening or surveillance to identify more cancers earlier. For example, in 2022-23 ensuring that patients who qualify for liver surveillance under National Institute for Health and Care Excellence (NICE) guidance are identified and invited for regular checks.

Diagnostic innovation

3.7 NHSE/I is identifying and accelerating the adoption of innovations which help to diagnose cancers faster and earlier, and which have also supported the clinical prioritisation of patients during the pandemic.

3.8 The following pilots are already up and running in clinical settings:

- Colon Capsule Endoscopy (pillcam) where a capsule is swallowed and produces images to enable diagnosis of abnormalities in the colon without a colonoscopy. This is a quicker, more convenient form of diagnosis, which also makes more efficient use of NHS capacity in people with a relatively low risk of having colorectal cancer.

- Cytosponge is a sponge the size of a pill that is used to identify cellular abnormalities in the oesophagus ('Barrett's oesophagus': a precursor of cancer). This is a COVID-safe alternative to endoscopy for many patients, providing a quick, cost-saving and effective triage to identify the highest risk patients.

3.9 NHSE/I is also building a pipeline of innovations for the future. We ran an open call for innovations in 2021, with a budget of £15 million. An external, independent expert panel reviewed the applications, advising the NHS Cancer Programme's innovation Expert Advisory Panel, chaired by Professor Richard Gilbertson, Li Ka-shing Professor of Oncology, Head of the Department of Oncology and Director of the Cancer Research UK Cambridge Centre. Successful projects are expected to begin in the spring, and we will be running a further call for submissions in 2022.

Artificial intelligence

3.10 Artificial intelligence has the potential to drive efficiency in areas of cancer care including health records, algorithms for better symptom analysis, and improving productivity in imaging. This will support the Long Term Plan objectives by providing fast, efficient, and effective diagnosis to identify cancers earlier.

3.11 The winners of the NHS Accelerated Access Collaborative's second AI in Health Care Awards competition were announced recently and can be found on the NHS website. Some have the potential to support fast and effective diagnosis, including:

- Paige prostate cancer diagnostic system, an AI based software which can support the interpretation of pathology sample images in order to more efficiently detect, grade and quantify cancer in prostate biopsies; and,
- DERM, which can help to analyse images of skin lesions.

4. Routes to Diagnosis

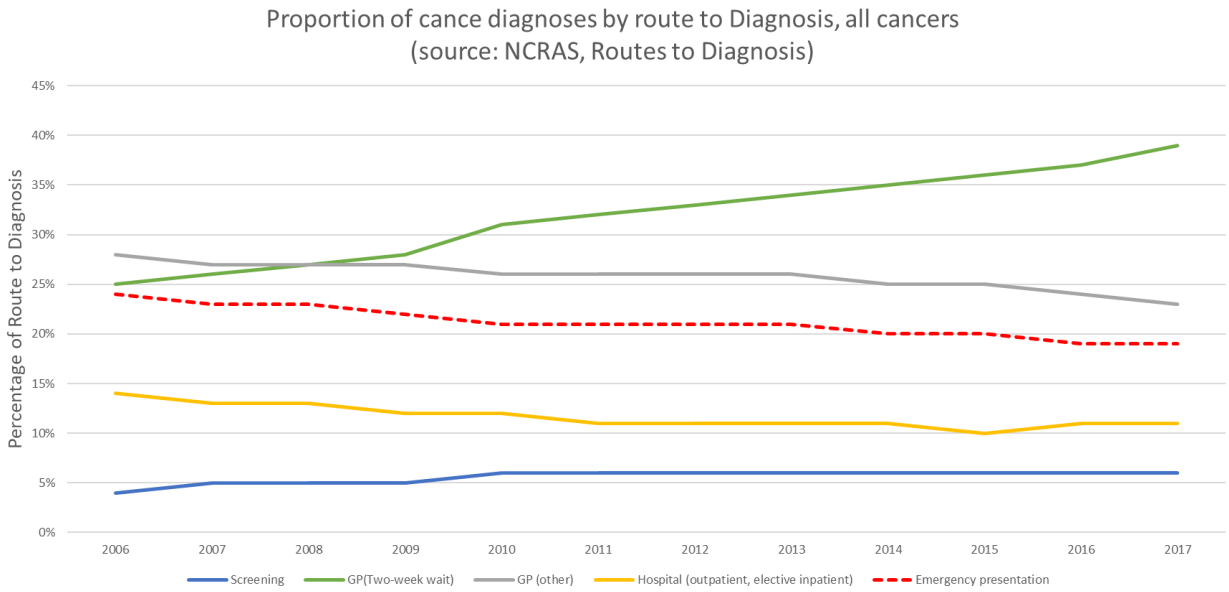
4.1 Most cancer patients come into the NHS through their GP, either as an urgent referral (39%) or as a non-urgent referral (29%). Between 2006 and 2017 there was a 14% increase in the proportion of patients being diagnosed following an urgent referral, reflecting the publication of new NICE guidance in 2015 and efforts to increase the speed of diagnosis for people with cancer symptoms.

4.2 According to PHE/NCRAS Routes to Diagnosis data, in 2017:

- 6% of all cancers were detected through the breast, cervical and bowel cancer screening programmes (+2% since 2006).
- 39% were following an urgent referral on the two-week wait pathway (+14%), in accordance with NICE guidance.
- 23% following non-urgent GP referral (-5%) – generally where the patient was referred by their GP but cancer not initially suspected.
- 11% were referred following either a (non-cancer) outpatient appointment at hospital or an elective inpatient appointment (-3%).

- 19% following emergency presentation (-5%). This is a cancer diagnosis through Accident and Emergency services.
- ~2% of routes are not known.

4.3 We are continuing to accelerate access to diagnosis and treatment by rolling out Rapid Diagnostic Centre pathways (RDCs) across the country. By October 2021 there were 159 RDC pathways operational across England, compared with 12 in March 2020. RDCs will also support the NHS to meet the new Faster Diagnosis Standard, which was introduced in October 2021, and will ensure that patients who are referred for the investigation of suspected cancer find out within 28 days whether they have cancer. These initiatives will streamline patient pathways and support more patients to get a faster diagnosis.



Source: NCRAS, Routes to diagnosis.

4.4 Emergency presentations data is published by NCRAS. This data confirms that there has been a long-term trend for emergency presentations to reduce as a proportion of all cancers (see graph). Our work to deliver earlier and faster diagnosis will reduce further the number of people diagnosed in an emergency setting.

4.5 In the early pandemic, we saw an increase in the proportion of emergency presentations, driven by a reduction in the overall number of diagnoses through other routes, but by Q3 2020/21, the total number of emergency presentations was similar to that seen in the same quarter the year before.

5. Lymphoedema treatment and support

5.1 The delivery of lymphoedema services in England is commissioned locally by CCGs, and the organisation and delivery may vary based on the needs of their population. We were also asked about access to lymphoedema during the Committee session.

5.2 The NHS' roll-out of personalised care ensures people with cancer have a holistic needs assessment, covering both their physical and psychosocial needs, and are referred to services where appropriate. Lymphoedema support is in the NHS' Personalised Stratified Follow-Up (PSFU) handbook, which was circulated nationally in March 2020

as required part of PSFU pathways. In addition, the new Cancer Quality of Life Survey will ensure that the NHS is learning from the experiences of cancer patients, including those who experience lymphoedema, and using this to drive service improvements.

NHS Cancer Programme
17 January 2022