Written evidence submitted by C the Signs (DEL0047)

Impact of COVID-19 on suspected cancer referrals and early diagnosis of cancer

C the Signs is making a submission of evidence to the Health Select Committee in its capacity as a subject matter expert on early diagnosis of cancer in primary care, and the application of evidence-based guidance in to clinical practice for suspected cancer referrals (in particular the NICE "Suspected cancer: recognition and referral" NG12 guidelines and the impact COVID-19 has had on both aspects of this). The technology is currently in use within the NHS and has been to show a mitigation to the effects and impact of COVID-19 on suspected cancer referrals felt elsewhere across the country.

ABOUT C THE SIGNS

C the Signs was founded by two doctors (with backgrounds in both primary and secondary care) and is a clinical decision support tool that uses artificial intelligence mapped with the latest evidence to help General Practitioners (GPs) identify and manage patients at risk of cancer at the earliest and most survivable stage of the disease. Covering all tumour pathways, C the Signs signposts GPs to which cancer(s) a patient is at risk of, and what test investigation or referral they need.

The tool is configured to each Clinical Commissioning Group to reflect the cancer services and pathways available locally for GPs to refer to. Pathways and referral criteria are kept up to date in real-time, reflecting the 'live' availability and access to cancer services, including tests, diagnostic investigations and 2-week-wait clinics locally, as well as including regional hubs and clinics that can be referred to.

C the Signs is completely automated; all patients are automatically added to a practice-based cancer dashboard, monitoring all patients on a suspected cancer pathway as well as those with a confirmed cancer diagnosis. This ensures the appropriate safety-netting patients and follow-up.

C the Signs has proven to have a significant improvement on cancer detection rates in primary care (up to 30x from trials), a reduction in emergency presentation rates of new cancer diagnoses and has improved performance of the national waiting time and treatment standards, reducing time to diagnosis.

C the Signs is currently operational in 5 Clinical Commissioning Groups working in partnership with RM Partners the West London Cancer Alliance. The tool is soon to be deployed in a further 15 CCGs across London and Oxfordshire.

PRE COVID-19 SUMMARY

Before even the first patient with COVID-19 was diagnosed, the UK had one of the highest rates of cancer mortality and one of the worst 1-year survival rates amongst comparable countries. Cancer is the leading cause for premature death in the UK: of the 367,000 patients who are diagnosed each year, 165,000 will tragically lose their lives.

Survival of most cancers is inextricably linked to the stage at diagnosis. Cancer diagnosed in the early stages (Stages 1 or 2) has significantly better outcomes, with an 80% chance of surviving five years or more as they are often amenable to curative treatment. However, in the late stages (Stages 3 or 4), when the cancer has spread, survival drops to less than 34%.

Early diagnosis of cancer is not without challenge. Cancer forms a small part of the entire workload for GPs. With over 200 different types of cancer, each with their own signs, symptoms and risk factors, it can be challenging for GPs to identify patients earlier, especially as the earliest signs are often vague, non-specific and overlap with more common benign conditions.

Additionally, with at multiple separate 2-week-wait tumour pathways, straight to test pathways, and direct access diagnostic investigations, it can be difficult to know which cancer pathway to refer a patient along.

The current status quo often required GPs to manually download new referral forms and learn the new criteria for cancer pathways: 2-week-waits, tests and direct access investigations, as well as manually source or download the corresponding patient information leaflets each time.

THE IMPACT OF COVID-19

The direct casualties of COVID-19 are likely to be counted in the tens of thousands in the UK, but the indirect consequences are still to unfold. For cancer, there are worrying signs that suggest a catastrophe is heading our way.

In 2018, Theresa May announced her ambition to transform early diagnosis of cancer: to save 55,000 patients' lives per year and diagnose 75% of all patients in the early stages of the disease by 2028. These commitments were later published in the NHS Long Term Plan in early 2019, leading to a coordinated effort between the NHS, industry and charity sector. This has led to some success over the last few years, with a year-on-year increase in suspected cancer referrals ('two-week-waits'), which have the strongest correlation to early diagnosis. To put this into perspective, a breast cancer patient diagnosed via a two-week-wait will have a one-year survival rate of 98%, whereas if they were diagnosed in A&E this would drop to just 57%.

Due to the understandable focus on COVID-19, much of this work is at risk of being undone, with the consequences likely to be felt over a much longer time scale.

1. **Impact on 2-week-wait referrals**

Two-week wait referrals for suspected cancer have now dropped by an astonishing 75% in a single month, with 30,000 fewer patients being referred each week. This equates to approximately 2,300 cancer patients being missed and left untreated. However, the overall picture is much more concerning, as these referrals account for only a third of cancer diagnoses. The remaining two thirds of patients are diagnosed elsewhere in the system and, given that routine referrals and appointments are now being deferred because of COVID-19 and with A&E departments seeing drastically fewer patients, the overall figure is a cause for much greater concern. That number could be closer to 7,000 cancer patients per week being missed.

The simplicity of the government's message "stay home, protect the NHS, and save lives" is key to the battle against COVID-19. Yet, the unintended consequences of this has been to spread fear and act as a deterrent for patients seeking healthcare. It has left individuals worried that they may

contract COVID-19 if they attend a GP practice or hospital, that services would be too stretched to see them, or even that by asking for medical help themselves would indirectly harm others elsewhere in the system.

2. **Challenge to early identification & referral in primary care**

While primary care has adapted to deliver the majority of their services virtually (through a combination of telephone and video consultations) in order to reduce barriers for patients, this may have had the adverse effect of dissuading patients to seek help because they are uncomfortable sharing the intimate nature of their concern over a computer screen (such as a breast lump or abnormal bleeding from an intimate area). At the same time, a combination of vague and non-specific symptoms would need further examination and assessment in order to decipher, which a virtual service cannot be expected to provide.

3. **Impact on national cancer screening programmes**

To make matters worse, we have seen much of the UK suspend screening for bowel, breast and cervical cancer. Screening identifies up to 15% of these common cancer types, with the vast majority identified in the early stage. Of the 200,000 patients who are screened each week, 400 are usually diagnosed with cancer. The ramifications of this on early diagnosis are grave. To take the case of bowel cancer, there is a 90% survival rate if the cancer is diagnosed in Stages 1 & 2, but a less than 10% survival rate at the later stage of the disease. Another serious consequence arising from postponement of screening is that there is no clear plan in place to mitigate or catch up on this rising backlog of patients. If screening is suspended for just 3 months, that would require screening centres to run at 133% capacity for the next 9 months – a heroic feat which many areas would not be able to achieve.

FINANCIAL IMPACT OF LATE DIAGNOSIS OF CANCER

The financial cost of this human tragedy will also be substantial. A late or missed diagnosis of cancer not only costs lives but is significantly more expensive to treat, with costly chemotherapy often being the only option. The cost of this to the NHS is on average £5,000 more per patient. If the strategic priority of the government has been to mitigate the financial impact of COVID-19 to the economy, then we must also consider the attributable healthcare cost: in the last month, up to 29,000 patients would have been affected from loss of referrals and cancelled screening. Without considering the other costs in the management of late stage cancer, the extra costs in treatment alone would be £146m for the NHS in one month alone.

RECOVERY & PREVENTION OF THE UPCOMING CATASTROPHE

C the Signs COVID-19 response

Patients who have symptoms suggesting they are at risk of cancer are not being identified and referred appropriately as the efficacy of remote triaging is limited by the lack of effective clinical decision support tools available, highlighting the need for tools like C the Signs.

We have already seen 4 tumour pathways and access to services radically change across London, with 4 new 2-week-wait forms, as well as a significant drop in access to endoscopy services across London. Through remote digital risk assessment, C the Signs has empowered GPs to safely risk access patients, against the NICE NG12 Gold-standard guidelines for suspected cancer, thorough an evidence-based framework and in the context of local resource.

Furthermore, as the number of patients awaiting access to cancer diagnostics and suspected referral clinics increases, the C the Signs safety netting dashboard has enabled a fool-proof safety-netting system to monitor patients on a cancer pathway and those with a cancer diagnosis. Patients who have been referred along a suspected cancer pathway and who are being 'held' until services return to normal, can be monitored and quickly re-referred within the tool as services and access may open up elsewhere across the region, through industry or cold hubs.

The communication of these pathways elsewhere across the UK has relied on emails and long attachments, creating lags in the system and time to adoption and implementation of these changes- ultimately impacting patient safety.

C the Signs has also been able to ensure patients are kept up to date, using the latest COVID-19 patient information leaflets which are texted to patients to ensure they are not lost to follow-up and are aware of the impact COVID-19 is having on cancer services and the clinical assessment/test they require once access is available.

CONCLUDING REMARKS

The sad reality is that without intervention, the impact of COVID-19 on patients with cancer is likely to be seen over many years. In the short term we may actually see a fall in the number of patients being diagnosed with cancer, but this should not be taken to be reassuring. The true reflection will be that these patients will have been missed this year and we will be picked up in the late stages of cancer next year or even the year after.

Nonetheless, with all these challenges, hope is not lost. There is an army of third sector organisations, private hospitals and industries that are ready to be mobilised. From scanning trucks, logistics and adoption of software that can accelerate early identification and monitoring of patients, to specialist cancer charities who have the experience, skills and resources in the field of cancer diagnosis. To date this has been largely untapped. We must initiate a cross-sector response in order to provide a meaningful service to patients, to not only offer care and support now but to mitigate against the looming disaster of the future.

C the Signs is ready to be mobilised and adopted at scale across the country, to support real-time referral pathways and criteria, accessibility of cancer services across cold-hubs and private sector organisations, as well as robust safety-netting of patients being triaged remotely and monitored.

If we put these measures into place now, we will save lives. If not, we will forever regret our inaction.

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