

## How has COVID impacted cancer services?

Every person young or old has been affected by COVID in some way. No one could have expected nor prepared for the virus to change our lives like it has. In these unprecedented times, we have seen over 800,000 deaths, over 23,500,000 cases and countries have locked down worldwide. This has had a prodigious impact on hospitals as many staff was deployed to front-line services armoured in full PPE. However, cancer hasn't terminated for COVID and cancer services have been severely disrupted due to this. Tens of thousands will unnecessarily die as a result from this invisible pathogen.

Everyone has had to social distance from loved ones and those closest to us. Human contact has since been eradicated and technology has been most people's main form of communication. This is no exception for GPs. With more than 500,000 GP online consultations a week, they have had to diagnose and treat symptomatic patients virtually. As you can imagine, this is an inconceivable task but GPs have come up with solutions to combat this. Triage and FIT tests have been at the forefront of the solutions.

FIT (Faecal-Immunochemical-Test) is a stool test, used in primary care to help GPs decide who's at the highest/lowest risk of bowel cancer being accelerated. Around 16,000 people in the UK die of bowel cancer a year so it's vital there is a test in place to assess the risk of bowel cancer. FIT allows you to check for bowel cancer at home with no risk of COVID and it detects minute amounts of blood in faeces. Many bowel abnormalities, which may develop into cancer over time, are more likely to bleed than normal tissue. So, if there is blood in the stool this can show the presence of abnormalities in the bowel. Patients with a positive FIT result are referred for further investigation by colonoscopy.

Triage tests are used to help decide whether patients with (cancerous or not) symptoms should be referred for further tests or not. GPs will decide who needs urgent medical referral and care first over someone with less severe symptoms. FIT tests can be used to give to triage patients with lower abdominal symptoms for suspected colorectal cancer referrals.

Despite this, GPs are seeing a reduction in appointments which decreases the number of urgent referrals for cancer treatment. At the peak of the pandemic, data research UK said

the number of cancer referrals went down by almost two thirds. This improved after the peak of the pandemic but only to the number of urgent referrals dropping around 25% of usual levels in England. Meaning that for every week that this goes on, over 2,300 cancer cases are likely to go undiagnosed across the UK – and this will stack up overtime according to Cancer research UK. Additionally, some GPs are reluctant to send their patients to their local hospital for fear of a COVID infection to them and staff so many diagnostic tests aren't being conducted.

This especially impacts the diagnosis and care of lung cancers which is the most common cause of cancer death. In the UK, there are around 35,300 lung cancer deaths every year, that's 97 every day (2015-2017) according to cancer research. The impact is also felt for cancers of the gastrointestinal tract and any that require investigation through tests such as endoscopy, bronchoscopies, guided biopsies and CTs.

During the pandemic, it is evident some people with potential cancer have not be diagnosed or referred. Whether this is down to fear of COVID or diagnostic uncertainty (when there is more than one possible cause for patients' reported symptoms and clinical findings) there needs to be a system in place to help these people. Cancer research have developed guidance to support GPs (a safety netting summary). This aims to ensure patients are monitored until signs and symptoms are explained or resolved especially during this challenging time.

Despite triage, FIT and safety netting there is still a decrease in referrals. This is especially detrimental as screening services in Scotland, Wales and Northern Ireland officially suspended their screening programmes. In England, some screenings continued but most NHS trusts put them on hold. There are estimations that over 2 million screening appointments have not been sent out (BBC Britain's Cancer Crisis), unfortunately resulting in thousands of cancers that will have missed the opportunity to be diagnosed through screening at that time. In just Scotland, detailed by an article published by BBC news, the estimated numbers affected per quarter each year, based on the most recent statistics are:

- 248,177 patients received bowel screening, 220 of whom were diagnosed with cancer.
- 46,596 patients received breast screening, of which 291 were diagnosed with cancer.

- 101,963 patients received cervical screening, of which 341 were diagnosed with invasive cancer.

These are the cancers that need to be picked up at the earliest possible stage, when treatment is most effective. For example, if you're diagnosed at an early stage, your chances of surviving bowel cancer are 90%. If you're diagnosed at a late stage, stage four, your chances of surviving long-term are 10%, according to the programme 'Britain's Cancer Crisis'.

Late diagnosis, suspended screenings and a decrease in referrals will lead to thousands of unnecessary cancer deaths. This anomalous circumstance has never been known before therefore predicting the number of cancer deaths is an extremely challenging task. Professor Mark Lawler is part of a team researching how many people might die of cancer over the next year compared to previous years and on Britain's Cancer Crisis he and his team "felt that the worst case scenario that is that there could be 35,000 excess deaths." However, at oncology-central.com "a group of us estimated that up to 60,000 cancer patients could unnecessarily die." In spite of the uncertainty, both figures show the deleterious impact of neglected cancer services has had on people's lives.

There is dispute on whether these figures would have been as substantial if the NHS guidelines (that caused many cancer patients treatment to be stopped or delayed) wasn't based in part on a small research study from China. There is now more up to date research which has challenged these findings and perhaps if this was not considered, cancer treatment would not have been so greatly impacted.

The guidelines remarkably affected radiotherapy. In an interview with the BBC panorama, Professor Pat Price (a clinical oncologist) exclaimed the impact on radiotherapy, "So you have machines like this (radiotherapy machine) which were lying idle. That could save lives. Radiotherapy should have taken over where chemotherapy and surgery left off and still should be doing that now. It has been safe to give radiotherapy during COVID, we know that now. It's outpatient. It doesn't affect the immune system. Radiotherapy is a life saver."

When asked how capacity was affected Professor Pat Price said, "We did a flash survey to find out. So we asked people on the frontline, end of April, what was their capacity like?"

Some places where they didn't have a COVID problem and they didn't have an Accident & Emergency, they were almost up to 100% and could carry on. Other places, they were down from treating from treating 30 patients a day to 6. That's an 80% drop."

Radiotherapy shouldn't have been affected and so the NHS has come up with solutions to treat cancer patients to hopefully decrease the future backlog. The NHS told trusts to pair up with private hospitals in order to create COVID- free cancer hubs. 21 alliances across the country was formed. This allows cancer treatment to continue through chemotherapy buses, alternate therapies and a fast track rollout of an innovative type of radiotherapy. This is essential as trials (especially ones that weaken the immune system) have been paused or discontinued particularly for treatments that might be risky should a patient develop COVID or need urgent intensive care. Current trials have stopped recruiting and many new trials are being put on hold considerably holding clinical research back.

On the 11<sup>th</sup> of June NHS England, announced its accelerating use of stereotactic ablative radiotherapy (SABR) requiring fewer doses than standard radiotherapy so potentially vulnerable cancer patients will have a reduced number of hospital visits, lowering the chance of disease. At the end of this year, the very precise method using a high dose of radiation will only need 5 outpatient visits. Inconsequential to normal radiotherapy requiring 20-30 treatment visits. Treatment can be used for non-small cell lung cancer and those with lung, lymph nodes and non-spine bone oligometastatic disease announced [England.nhs.uk](https://www.england.nhs.uk).

To minimise long distance and regular hospital checks, online consultations and 'COVID-protected' cancer hubs for treatment have been introduced. The cancer hubs have then been expanded by carrying out multiple same day tests minimising patient visits and restoring surgeries eventually to pre pandemic levels. 'Chemo-buses' have also been fast tracked prompting 4 cancer buses in North Middlesex University Hospital in London and Airedale NHS Trust in Yorkshire allowing 60 sessions of live saving treatment a day. The buses give clinical teams the area to give chemotherapy to 4 patients at a time in either an appropriate location for patients or outside the hospital.

However, there is uncertainty whether cancer hubs have access to sufficient testing to ensure the supposed 'COVID- free zones' are safe for patients and staff. A lot of cancer

patients who are currently being treated have an increased risk of impediments if COVID was to be contracted. Additionally, in areas where chemo buses aren't accessible, many healthier patients with a less advanced disease that would benefit from treatment or surgery are at a no greater threat from the pandemic than the rest of the population. COVID testing needs to be majorly increased so these issues are resolved. Lifesaving treatment is being held back due to a lack of testing; this needs to be stopped.

In order to relieve pressure from hospitals, local pharmacy teams and community nurses have enhanced chemotherapy at home. This has reduced vulnerable people's exposure to COVID and at the Clatterbridge cancer centre in Merseyside there are 285 patients receiving oral chemo at home, delivered by local volunteers reported [England.nhs.uk](https://www.england.nhs.uk).

The immunosuppressive impact on certain patient treatment has as we know been stopped igniting the £160 million initiative announced by Simon Stevens for 'COVID- friendly cancer treatments that are safer for patients. Almost 50 treatments have been improved for use as 'swaps' for existing drugs and more will be available in time (due to deals struck between NHS and pharmacy companies).

Other treatment options now include:

- Venetoclax in acute myeloid leukaemia as an oral alternative to a more toxic standard chemotherapy.
- Nivolumab for patients with bowel cancer whose cancers have a specific genetic fingerprint.
- Ixazomib in mefeloma as an oral alternative to treatment which would require more hospital visits and injections.
- Atezdzumab as fist-line immunotherapy for bladder cancer instead of chemotherapy.
- Targeted hormone therapies such as enzalutamide for prostate cancer and broadened use of lenalidomide in the treatment of myeloma- bone marrow cancer- are among the options now available for clinicians and patients.

(Other treatment information from [England.nhs.uk](https://www.england.nhs.uk))

During the first few months of the pandemic, almost 2,000 people were given the less risky but effective cancer therapies. This has allowed their treatment to go ahead where it otherwise might have been stopped, delayed or not safe to give described England.nhs.uk.

These alternate therapies are so vital as patients requiring major surgery was not able to have it. This is in conjunction with there being no recovery beds with ventilation or no ICU beds if the surgery was to go wrong. Surgery can also be too risky for patients and staff but is unrightfully affecting those who might benefit the most from surgery, as many curative operations are complex. Many doctors are concerned that some early cancers are having their treatment delayed for 3 months or more which leads to less likely chances that surgery can be curative. Palliative care has also been affected but should recover quickly once COVID eases.

There is potential for more people to die of the withdrawal of cancer services than COVID infection in the UK. This is disgraceful to the lives lost and loved ones of those. The NHS needs to increase COVID testing to insure the COVID free zones stay COVID free and so cancer patients can continue their treatment. COVID may bring alternate therapies and a faster rollout of SABR; however the guidelines shouldn't have been based in part on the wrong research study. This has only added to the death toll. Going forward, I hope these circumstances will never be repeated and cancer patients start to get the treatment they deserve.