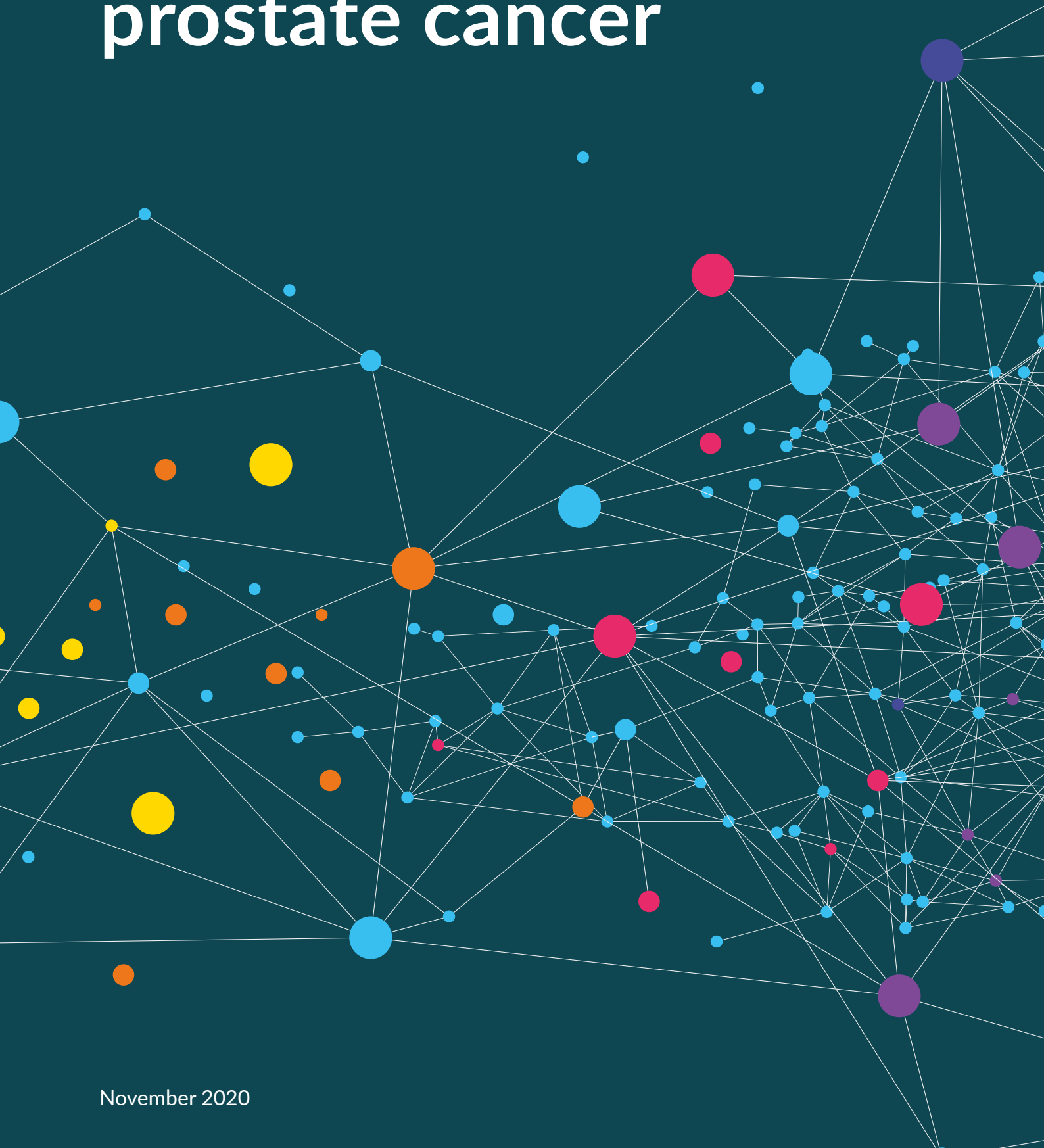


NICE impact prostate cancer



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Impact of the coronavirus (COVID-19) pandemic

This report looks at the impact of our guidance using data mostly collected before the COVID-19 pandemic. However, care has been delivered differently in response to COVID-19. Some people with prostate cancer, and their families and carers, may have had a less positive experience.

We do not yet know the full impact that the COVID-19 pandemic is having on prostate cancer care. It is likely that changes made during this time will influence how care is delivered in the future.

Insight from Dr John Graham



Dr John Graham, consultant oncologist and trust cancer lead clinician at Taunton and Somerset Hospital. A core member of the committee for [NICE's guideline on prostate cancer: diagnosis and management](#), Dr Graham considers NICE's role in improving outcomes for prostate cancer.

As pointed out in this report, prostate cancer is the most commonly diagnosed cancer in the UK and a major health challenge. There have been substantial improvements in the diagnosis and treatment of prostate cancer over the last 20 years and NICE guidance has been key to many of these.

NICE's first prostate cancer guideline, published in 2008, established active surveillance as an acceptable method of managing early prostate cancer. In 2014, the updated guideline was instrumental in establishing centres with expertise in robotic prostatectomy. Finally, the most recent guideline update in 2019 has set standards for the use of multiparametric MRI in the diagnosis of prostate cancer.

Why focus on prostate cancer?



57,000

new UK diagnoses in 2018, exceeding breast, lung and bowel cancer



33%

increase in hospital admissions between 2014-15 and 2018-19



1 in 6

men will be diagnosed in their lifetime



400,000

people living with or after the disease

Sources: Office for National Statistics [Cancer registrations](#), Cancer research UK [Lifetime cancer risk](#), Prostate Cancer UK [Cancer diagnosis in the UK](#), NHS Digital [Hospital episode statistics \(England\)](#)

We have published

10

Technology appraisals

2

Quality standards

3

Clinical guidelines

3

COVID-19 rapid guidelines

13

Medtech and interventional procedures

Recognition and diagnosis of prostate cancer

The chances of developing prostate cancer increase with age, with almost 9 out of 10 new diagnoses being in people aged 60 or older. The causes of prostate cancer are not completely understood, but there are several things which can increase a person's risk. The [NHS website](#) has more information on risk factors. Data from [cancer research UK](#) shows between 1997 and 2017 the number of people diagnosed with prostate cancer increased by a third. This could be due to greater awareness of the disease and increased testing.

87% of people diagnosed with prostate cancer are aged 60 years or older ([National Prostate Cancer Audit](#) 2019)

National campaigns, such as [NHS Be clear on cancer](#), as well as media coverage of the British celebrities Stephen Fry and Bill Turnbull have raised awareness. In February and March 2018, they announced their diagnosis of prostate cancer and described their treatment journeys. An analysis of the '[Fry and Turnbull effect](#)' found a 250% increase in visits to the NHS prostate cancer advice webpage from April to July 2018, compared to the corresponding months in 2017.

Compared with other cancers, prostate cancer has a high survival rate overall, with a 5 year survival rate of over 95% when diagnosed at stage 1 to 3. Although, for the 1 in 5 people diagnosed with stage 4 prostate cancer (metastatic), the [5-year survival](#) rate drops to just 49%.

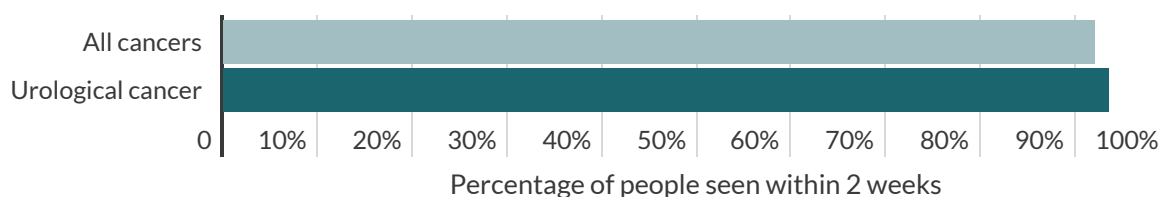
Suspected cancer pathway

To help identify people with possible cancer, NICE developed a [guideline on suspected cancer: recognition and referral](#). This includes a section on the signs and symptoms of prostate cancer which can help healthcare professionals to decide when a suspected cancer pathway referral, for an appointment within 2 weeks, is needed. This helps to ensure that patients either receive a definitive diagnosis

or have prostate cancer ruled out within 28 days. Faster diagnosis of cancer is one of the NHS Long Term Plan ambitions.

[NHS England's Cancer waiting times report](#) shows that the proportion of people seen within 2 weeks with suspected urological cancer is above NHS England's operational standard of 93%. Although in the same period, the 31-day wait for first treatment falls below the operational standard of 96%.

Proportion of people seen for suspected cancer within 2 weeks



Source: [NHS England's Cancer waiting times](#) annual report 2019

Cancer referrals during the COVID-19 pandemic

In the first month of lockdown, April 2020, the number of people referred urgently from their GP for investigations for any suspected cancer fell by more than half. Despite the COVID-19 pandemic, the number of urgent GP referrals has recovered. In August 2020, the number of urgent GP referrals for any suspected cancer was just 15% lower than in August 2019. Of those referred, 88% had their first consultant appointment within 2 weeks.

85% of urgent GP referrals for any suspected cancer were made in August 2020 when compared to August 2019
([NHS England Cancer waiting times](#) 2020)

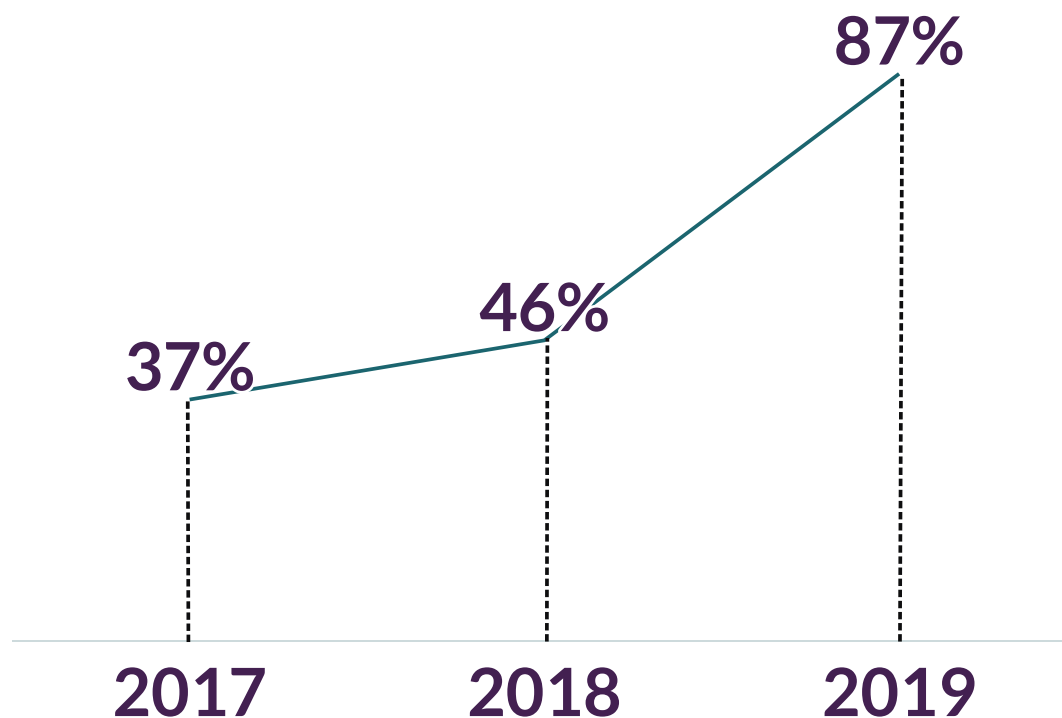
In July 2020, NICE published [COVID-19 rapid guideline: arranging planned care in hospitals and diagnostic services](#). The purpose of the guideline is to help healthcare professionals deliver efficient planned care while minimising the risk of COVID-19. It also aims to help patients make decisions about their planned care during the pandemic.

Testing for prostate cancer

An accurate diagnosis is important to determine the stage of the disease and to make sure the appropriate treatment is offered. [The most common investigations for prostate cancer](#) are blood tests, a physical examination of the prostate (known as a digital rectal examination), multiparametric MRI (mpMRI) scan and prostate biopsy.

[NICE's guideline on prostate cancer](#) says to offer mpMRI as the first-line specialist investigation for people with suspected clinically localised prostate cancer. This enables identification of clinically significant cancer and reduces the diagnosis and overtreatment of clinically insignificant cancer. It also reduces the number of people who need a biopsy, which has associated risks, such as infection.

The proportion of mpMRIs performed before biopsy is increasing



Source: [National Prostate Cancer Audit](#), 2017 to 2019

[The NHS England and NHS Improvement prostate cancer diagnostic pathway](#) supports the implementation of mpMRI as a first-line investigation for people with suspected clinically localised prostate cancer.

Although the number of clinical radiologists increased from 3,048 in 2014 to 3,622 in 2019, more will be needed to support the increased demand for mpMRI scans. As part of the [Health Education England National cancer workforce plan](#), a workstream has been prioritised to address this.

Data from the 2019 [National Prostate Cancer Audit](#) show that more mpMRI scans are being completed before biopsies. In England, mpMRI was used before a biopsy in 87% of cases, more than double the rate in 2017.

Insight from Dr John Graham

Identifying significant prostate cancer remains the principal challenge. Many localised cancers may never impact on life expectancy, but it is essential that high-risk cancers are identified at an early stage. Although the treatments for incurable prostate cancer continue to improve, it is imperative that we reduce the number of people being diagnosed with stage 4 disease.

The impact of COVID-19 remains to be quantified, but it's encouraging to see referrals for cancer diagnostics improving following the initial reduction. However, the second wave of covid-19 may impact on this.

Treatment

A range of prostate cancer treatment options are available, and choice of treatment depends on the stage of cancer, the presence of comorbidities and the person's preferences. By discussing all the appropriate treatment options available, people with prostate cancer can make an informed decision on their preferred treatment. NICE has endorsed the [Predict Prostate patient decision aid](#) produced by the University of Cambridge Academic Urology Group. It supports [NICE's guideline on prostate cancer](#) by comparing the potential outcomes of different treatment options for people with non-metastatic prostate cancer.

Low-risk or intermediate-risk localised prostate cancer

[Active surveillance](#) is used as part of a 'curative' strategy. People whose tumours are showing signs of progressing, or those with a preference for an intervention are considered for radical treatment. Active surveillance may avoid or delay the need for radical treatment.



Active surveillance is for people with localised prostate cancer who can have radical treatments, but do not want them immediately.

[NICE's guideline on prostate cancer](#) says to offer active surveillance as an option for people with low-risk localised prostate cancer and to consider it for people with intermediate-risk localised prostate cancer who do not wish to have immediate radical treatment. Using data for England from the national prostate cancer audit, active surveillance could be an option for around 15,500 people at low or intermediate risk. The NICE guideline sets out how active surveillance should include regular monitoring for disease progression and discussion of whether further treatment is needed or preferred.

Intermediate-risk and high-risk localised prostate cancer

The 2019 [National Prostate Cancer Audit](#) shows that 77% of new prostate cancer diagnoses were classified as intermediate-risk or high-risk locally advanced. Surgery and

combination radiotherapy with androgen deprivation therapy are options for these patients. The NICE guideline says for people with high-risk localised prostate cancer docetaxel chemotherapy with androgen deprivation therapy can also be an option in some circumstances.



Radical prostatectomy is the surgical removal of the entire prostate gland

Radical prostatectomy can be performed using open, laparoscopic or robotically assisted laparoscopic surgery. [NICE's guideline on prostate cancer](#) says that commissioners of urology services should consider providing robotically assisted surgery to treat localised prostate cancer if they expect to carry out at least 150 such surgeries per year. The benefits of robotic surgery include less blood loss, reduced pain and shorter hospital stays. The most recent [National Prostate Cancer Audit](#) found that the robotic approach is increasing.

Increase in the proportion of prostatectomies performed robotically



Source: [National Prostate Cancer Audit](#), 2017 and 2019

Radiotherapy aims to destroy prostate cancer cells in situ with minimal damage to healthy cells. [NICE's guideline on prostate cancer](#) says people with intermediate-risk and high-risk localised prostate cancer should be offered a combination of radical radiotherapy and androgen deprivation therapy, rather than either treatment alone.

External beam radiotherapy is where high-energy X-ray beams are targeted at the prostate from outside the body. The NICE guideline says that people having radical external beam radiotherapy for intermediate or high-risk localised prostate cancer should be offered hypofractionated radiotherapy. The [National Prostate Cancer Audit](#) in 2019 reported that 91% of people receiving radical radiotherapy for intermediate-risk disease received hypofractionated radiotherapy in combination with androgen deprivation therapy.

Brachytherapy places radioactive sources inside the body to destroy the cancer cells. Low dose rate permanent brachytherapy is used as monotherapy for localised low- to intermediate-risk prostate cancer. High dose rate brachytherapy boost is used for high-risk localised prostate cancer in combination with radiotherapy. The [NICE guideline on prostate cancer](#) says to consider brachytherapy in combination with external beam radiotherapy for people with intermediate- and high-risk localised prostate cancer. The use of brachytherapy is low but increasing.

5% of people having radical radiotherapy also had a brachytherapy boost ([National Prostate Cancer Audit 2019](#))

In combination with radiotherapy, androgen deprivation therapy lowers androgen levels or stops them from getting into prostate cancer cells, which can make prostate cancer shrink or grow more slowly. The NICE guideline says to offer people with intermediate- and high-risk localised prostate cancer a combination of radical radiotherapy and androgen deprivation therapy. Androgen deprivation therapy should be offered for 6 months before, during or after radical external beam radiotherapy. The guideline also says to consider continuing androgen deprivation therapy for up to 3 years for people with high-risk localised prostate cancer, taking into account the benefits and risks of this option.

52% of trusts provided 3 years of androgen deprivation therapy after completing radiotherapy ([National Prostate Cancer Audit 2019](#))

The [National Prostate Cancer Audit](#) organisational survey reported that there was variation between trusts on androgen deprivation therapy treatment duration. For intermediate-risk cancer 73% of trusts gave 6 months of androgen deprivation therapy before further treatment, but for high-risk disease 43% of trusts gave 6 months or more androgen deprivation therapy before further treatment.

There is evidence that docetaxel chemotherapy delays disease progression in people with high-risk, non-metastatic disease. The NICE guideline says that clinicians should discuss this option with people who are newly diagnosed as high-risk with no significant comorbidities and starting long-term androgen deprivation therapy. The benefits and

harms should be discussed, and a shared decision made about whether to have this treatment. The [national audit 2019 appendices](#) reported that 14% of people with newly diagnosed node-positive non-metastatic disease received docetaxel with androgen deprivation therapy.

The [National Prostate Cancer Audit: Short report 2020](#) found variation in the management of high-risk or locally advanced prostate cancer in England. It identified socioeconomic status and ethnicity as determinants for receiving radical treatment. Compared to the least deprived group, the most deprived group were 7% less likely to receive radical treatment. People from black ethnic groups were 4% less likely to receive radical treatment than people from white ethnic groups, and 6% less likely than people from Asian ethnic groups.

Metastatic prostate cancer

Metastatic prostate cancer means the cancer has spread from the prostate to other parts of the body. [The National Prostate Cancer Audit](#) shows that 17% of newly diagnosed prostate cancers were classified as metastatic.

Treatment decisions depend on factors such as general health and how the person feels about the treatments side effects. [NICE's guideline on prostate cancer](#) recommends offering docetaxel chemotherapy for people with newly diagnosed metastatic prostate cancer who do not have significant comorbidities. The [evidence for docetaxel chemotherapy](#) showed improvements in overall survival and clinical progression-free survival.

27% of people with metastatic disease had primary docetaxel chemotherapy with androgen deprivation therapy
([National Prostate Cancer Audit 2019](#))

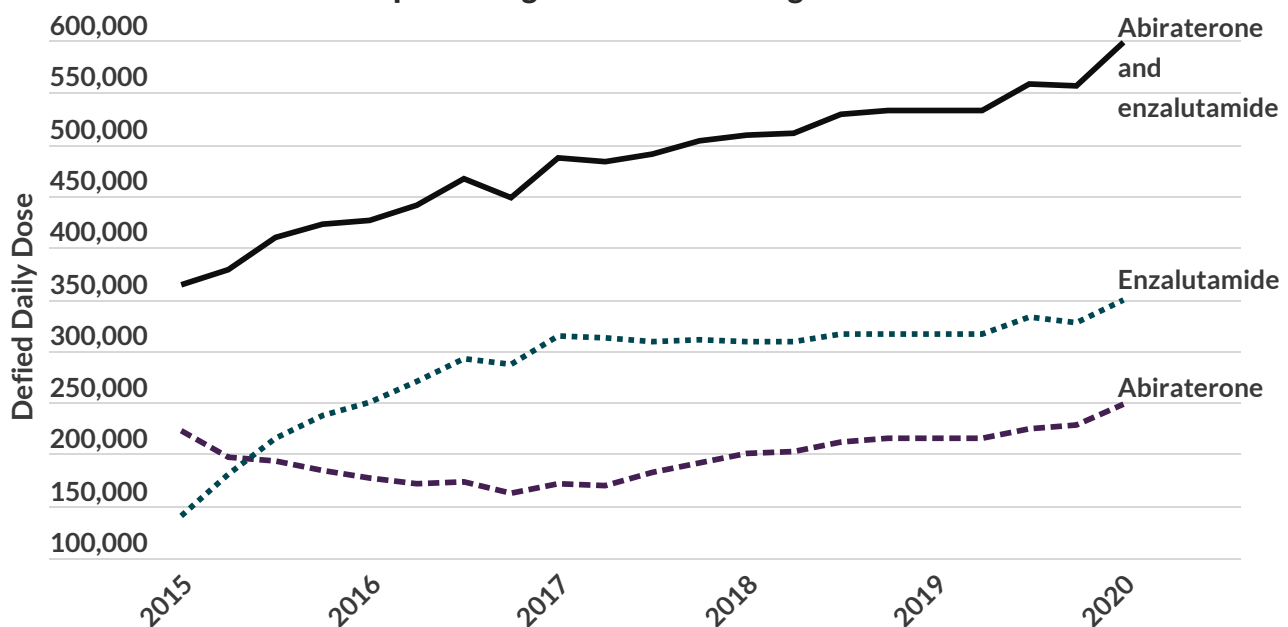
Metastatic hormone-relapsed prostate cancer

Metastatic hormone-relapsed prostate cancer is when the cancer has returned following primary androgen deprivation therapy. The most common treatment options for people with disease at this stage are abiraterone or enzalutamide.

The drugs work in a similar way to each other, but enzalutamide is less likely to cause liver toxicity and does not need to be taken with steroids.

Both are now recommended by NICE before chemotherapy following androgen deprivation therapy. They are also recommended after docetaxel chemotherapy if the disease has progressed. The overall use of these drugs has increased since they were first recommended in NICE's technology appraisal guidance on [abiraterone](#) in 2012 and [enzalutamide](#) in 2014, with enzalutamide use overtaking abiraterone in 2015.

Enzalutamide and abiraterone prescribing 2015 to 2020 in England



Source: [NHS Digital NICE technology appraisals in the NHS in England](#) (Innovation scorecard 2020)

Treatment options during the COVID-19 pandemic

Some prostate cancer treatment options, such as docetaxel chemotherapy, can only be administered in hospital and can have potentially serious side effects that may need hospital admission. This could increase the risk of exposing already vulnerable people to COVID-19.

In March 2020, NICE published the [COVID-19 rapid guideline: delivery of systemic anticancer treatments](#). In line with new advice from NHS England and NHS Improvement, the guideline allows for greater flexibility in the management

of cancer during the COVID-19 pandemic to ensure patients can access alternative treatment options. Enzalutamide or abiraterone can be prescribed alongside androgen deprivation therapy for people with newly diagnosed metastatic prostate disease instead of docetaxel and are just as effective. This reduces the risk of toxicity and the potential for hospital admission. In addition, enzalutamide and abiraterone tablets can be taken at home with monitoring and, unlike docetaxel, they have no significant effects on the immune system.

Shared learning example

[Maintaining a cancer service in the midst of the COVID-19 pandemic](#) describes the experience of a single centre and the changes to the provision of oncology services during the COVID-19 outbreak.

By limiting visits to the hospital, moving chemotherapy delivery to a separate unit and delivering medications to home addresses the service has been able to keep their patients safe. These service changes were underpinned by the NICE [COVID-19 rapid guideline: delivery of systemic anticancer treatments](#).

The shared learning example describes how the recommendations on communicating with patients, prioritising systemic anticancer treatments and modifying usual service were implemented in practice.

The results show that systemic anticancer treatment has been delivered throughout this period and the capacity to treat patients safely in a dedicated outpatient environment has increased. In 4 months, 292 haematology and oncology patients were reviewed through the new COVID-19 assessment unit.

To maximise the safety of patients who need radiotherapy and make the best use of NHS resources, while protecting staff from infection, in March 2020 NICE published the [COVID-19 rapid guideline: delivery of radiotherapy](#). This prioritises radiotherapy treatments to enable services to match the capacity for radiotherapy to patient needs if services become limited because of the COVID-19 pandemic. The recommendations are based on evidence and expert opinion, and have been verified as far as possible. NICE will review and update the recommendations as the knowledge base and expert experience develops.

Insight from Dr John Graham

The steady increase in robotic radical prostatectomy is welcome and the 2014 NICE guidance was a key driver of this change in practice.

The COVID-19 measures for newly diagnosed prostate cancer are welcome. However, I remain concerned that due to COVID-19 the incremental

improvements seen in the management of advanced prostate cancer over the last 20 years may be undermined by clinicians' and patients' reluctance to consider chemotherapy. Even pre-COVID there were substantial variations in chemotherapy rates across the UK.

Managing adverse effects of treatment

Treatments for prostate cancer can cause adverse effects that continue after treatment. In 2019, the [National Prostate Cancer Audit](#) reported that most people are assessed for some of the key adverse events. After radical prostatectomy 96% of patients had a urinary incontinence score, and after radical radiotherapy 100% had a bowel function score and 91% a sexual function score. These assessments enable decisions to be made on further treatment.

‘There are a number of solutions to whatever it is – incontinence or erectile dysfunction. And, like in all these things, if one doesn’t work, keep moving on, keep trying it.’

Paul, 64, following surgery had incontinence and erectile problems

[NICE’s quality standard on prostate cancer](#) says that people with adverse effects of prostate cancer treatment should be referred to specialist services. Responses to the [National Prostate Cancer Audit organisational survey](#) indicated that support services for sexual function, continence and psychological counselling were widely available throughout the country. However, individual management of adverse effects needed improvement.

Fatigue is a common side effect of androgen deprivation therapy. People should be told that their fatigue may be caused by their treatment rather than their prostate cancer. To combat fatigue, [NICE’s guideline on prostate cancer](#) says that people who are starting or having androgen deprivation therapy should be offered supervised resistance and aerobic exercise at least twice a week for 12 weeks.

Shared learning example

[A hospital trust initiative to offer exercise programmes to people with prostate cancer](#). The trust identified a low level of exercise and high level of obesity in people with prostate cancer as risk factors for side effects following androgen deprivation therapy, particularly fatigue.

A national qualification in exercise rehabilitation was developed, enabling gym instructors to accept

referrals for people with cancer into the national exercise referral scheme. Initial evaluation showed that 40% of people attended a participating gym within 1 month. A further 30% attended after a follow-up phone call or encouragement during a subsequent consultation. All who started the programme, except 1 person, completed the 12-week programme and 94% were satisfied or highly satisfied with the scheme.

Gastrointestinal complications are common side effects of radiotherapy. The [National Prostate Cancer Audit](#) reported that around 1 in 10 people develop these complications and need further investigation or treatment 2 years after radical radiotherapy. [NICE's guideline on prostate cancer](#) says that people with signs or symptoms of radiation-induced enteropathy should be offered care from an expert team of professionals. The [National Prostate Cancer Audit organisational survey](#) reported that 33 out of 56 radiotherapy centres have a specialist gastrointestinal service and suggested that more trusts should consider establishing these.

10% of people develop gastrointestinal complications following radiotherapy ([National Prostate Cancer Audit 2019](#))

Genitourinary complications are also a common side effect of prostatectomy. The 2019 National Prostate Cancer Audit reported that 9% of people developed these complications which needed further investigation or treatment 2 years after radical prostatectomy. [NICE's guideline on prostate cancer](#) says that people with prostate cancer who have troublesome urinary symptoms after treatment should have access to specialist continence services for assessment, diagnosis and conservative treatment. Treatments may include coping strategies, pelvic floor muscle re-education, bladder retraining and pharmacotherapy. The National Prostate Cancer Audit organisational survey, 2019 reported that these services were widely available and 98% of specialist multidisciplinary teams had continence services.

'My catheter was removed a week after surgery but unfortunately, I found I was totally incontinent. Although I had been warned that it might happen, it was still pretty depressing.'

Tony, who had radical prostatectomy for localised prostate cancer.

Insight from Dr John Graham

While the earlier use of novel hormone therapies has many advantages, there is a continuing need for improved investigation and management of

the toxicities associated with long-term androgen deprivation therapy.

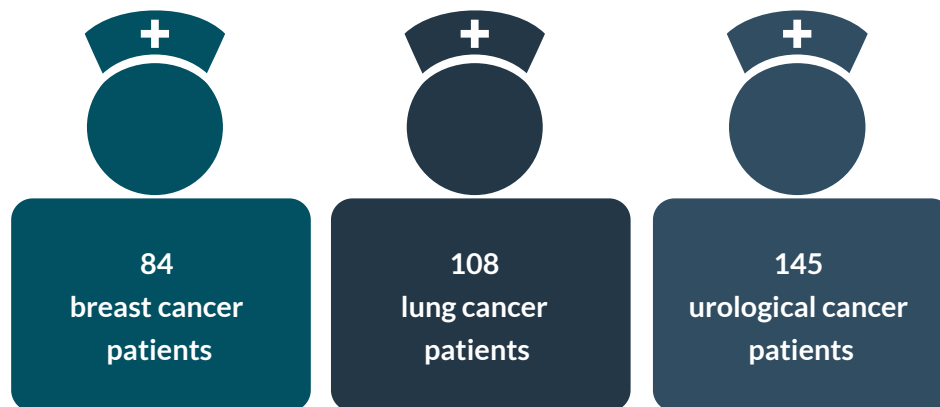
People's experience of care

[The NHS Constitution](#) highlights the importance of people being at the heart of everything the NHS does. People should be treated with compassion, dignity and respect, and be involved in decisions about their care and treatment. [NICE's guideline on patient experience in adult NHS services](#) and [quality standard on patient experience in adult NHS services](#) reflect these key themes.

Nurse specialist

Having a named specialist nurse who is easy to contact for information, advice and support can help people feel reassured that they are well informed and involved in decisions about their care. [NICE's quality standard on prostate cancer](#) says people with prostate cancer should discuss their treatment options and possible adverse effects with a named nurse specialist.

Urology has the highest number of new cases per cancer nurse specialist



Source: [Macmillan census on Cancer workforce in England](#) 2017

The [National Cancer Patient Experience Survey](#) reported in 2019 that 88% of people with prostate cancer in England were given the name of a nurse specialist to support them through their treatment. It also reported that 68% of people with prostate cancer found their nurse specialist very easy or quite easy to contact, which is lower than the 76% reported for all cancer patients.

[Workforce data collected by Macmillan](#) show that 12% of specialist cancer nurses specialise in urology, whereas [office for national statistics cancer registration](#) data shows around 20% of newly diagnosed cancers are urological.

Variation between cancer alliances in the ratio of urology specialist cancer nurses to newly diagnosed patients in their care

	Nurse	People
Fewest new patients per urology cancer nurse	1	87
Most new patients per urology cancer nurse	1	251

Source: [Macmillan census on Cancer workforce in England](#) 2017

Experience of care


[NICE's guideline on patient experience in adult NHS services](#) says that all staff involved in providing NHS services should treat patients with respect, kindness, dignity, compassion, understanding, courtesy and honesty. They should provide information and support in an accessible format and discuss decisions about investigations and treatment in a style and manner that enables the person to express their personal needs and preferences.

The [National Cancer Patient Experience Survey](#) reports that in 2019, over 90% of people with prostate cancer reported they were treated with respect and dignity while in hospital, and 86% were given clear written information about what they should or should not do after leaving hospital. The survey also reported that 84% of people with prostate cancer were involved as much as they wanted to be in decisions about their care and treatment.

Insight from Dr John Graham

The figures on cancer nurse specialists in urology compared to other cancers remain a concern. Prostate cancer treatment is complex and often extends over many years. NICE guidance has

highlighted the need for additional nurse specialists for people with prostate cancer but a lot more needs to be done.

The background features a complex network of white lines connecting various colored nodes (blue, green, yellow, purple) of different sizes, creating a web-like structure against a dark teal background.

We would like to thank Dr John Graham, consultant oncologist and trust cancer lead clinician at Taunton and Somerset hospital, the National Prostate Cancer Audit, and Prostate Cancer UK for the help to provide quotes for this report.

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