

Prostate Cancer

East Sussex JSNA
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Introduction:

What is prostate cancer?

Prostate cancer is cancer of the prostate gland. Most prostate cancers start in the outer gland cells of the prostate. Many of these cancers grow extremely slowly and are not likely to spread or cause death. Some can grow more quickly, particularly for younger men (early onset prostate cancer) but it is not always possible to predict.

Lifetime risk

1 in 6 UK males will be diagnosed with prostate cancer in their lifetime. Prostate cancer is not clearly linked to any preventable risk factors. No modifiable factors have been conclusively linked with prostate cancer risk.

Some men with prostate cancer remain asymptomatic and die from unrelated causes rather than as a result of the cancer itself. This may be due to the advanced age of many men at the time of diagnosis, slow tumour growth, or response to therapy.

What is the prostate gland?

The prostate is a walnut-sized gland located in the pelvis, which forms part of the male reproductive system. Its function is to secrete prostatic fluid, one of the principal components of semen, together with spermatozoa and seminal vesicle fluid.

The prostate surrounds the first part of the tube that carries urine from the bladder to the penis. This tube is called urethra. The urethra also carries semen, which is the fluid containing sperm. The prostate gland produces a protein called prostate specific antigen (PSA). A blood test can measure the level of PSA.

Diagnosing prostate cancer

Early prostate cancer does not usually cause any symptoms.

What are the symptoms of prostate cancer?

If the cancer has grown large enough to put pressure on the urethra, the [symptoms of prostate cancer](#) can be difficult to distinguish from those of prostate enlargement (see Table 1)

Table 1 Comparison of symptoms of prostate cancer and benign prostatic enlargement.

Symptoms	Prostate enlargement	Prostate cancer
Needing to pass urine more frequently, often during the night	x	x
Needing to rush to the toilet [urgency]	x	x
Difficulty in starting to pass urine (hesitancy) or stopping	x	x
Straining, or taking a long time while passing urine	x	x
Weak flow	x	x
Blood in urine		x
Feeling that the bladder has not fully emptied	x	x

Why is prostate cancer important?

Prostate cancer is the most common cancer amongst men in the UK, where it accounts for 26% of all male cancer diagnoses, 14% of male cancer deaths, 13% of total cancer diagnoses and 7% of total cancer deaths in the UK.

There are around 12,000 prostate cancer deaths in the UK every year, 33 every day (2017-2019).

In the three years between 2018-20 in East Sussex there were: 1,933 new [incident] cases prostate cancer and 474 deaths from prostate cancer.

In 2019, only 42% of all prostate cancers were diagnosed at an early stage, (defined as stage 1 and 2), when treatment is more likely to lead to a cure or to delay progression of the disease. This varied by CCG with a range of 23% to 66%. [Please refer to the Glossary for an explanation of staging.](#)

Approximately 10% of prostate cancer cases are diagnosed in men younger than 56 years and represent early-onset prostate cancer. Early-onset prostate cancer is increasing, and there is evidence that some cases may be more aggressive.¹

What are the key challenges?

- We want to ensure men with a prostate cancer that would shorten their life are found early, when treatment is more effective.
- Some prostate cancer is slow growing and won't affect a man's life expectancy. Treatment comes with risks which can substantially reduce quality of life.

- Although the subject of active research, we can't currently distinguish how aggressive a person's prostate cancer is. There's a balancing act: finding more cases will lead to higher incidence rates but may not lead to as much of a reduction in mortality from prostate cancer.
- There are no known modifiable risk factors for prostate cancer (unlike smoking and lung cancer), so reducing mortality relies on timely diagnosis and treatment.
- Differences in incidence rates between districts and boroughs within East Sussex are likely to be due to differences in recognition of symptoms as being of concern, and different levels of PSA testing.
- Symptoms should be investigated according to the level of risk they represent.
- There are different views on the value of PSA tests in men with no symptoms due to risks outlined above. The benefits of earlier diagnosis are unclear, particularly in later life.

Key outcomes

The NHS Long Term Plan contains the commitment that, by 2028, the proportion of cancers diagnosed at stages 1 and 2 will rise from around 50% to 75% of cancer patients.² Increasing personalised care is a key outcome, with cancer patients having access to all elements of the Recovery Package.^{3,4}

Compliance with national cancer standards, including the Faster Diagnosis Standard.^{5,6}
Reduce unexplained variation in cancer outcomes.

Summary:

- In East Sussex CCG in 2020 the proportion of prostate cancers diagnosed late, at stages 3 or 4, was 50%. Of these 19% were diagnosed very late at stage 4. Patients diagnosed at stage 4 have the worst chance of survival [53%, 5-year survival in those patients diagnosed in 2016-2020].⁷
- The proportion diagnosed at stage 1 or 2 in East Sussex [where the staging has been recorded] has remained relatively unchanged since 2015 [range 49% to 52%] against the national target of 75%.
- East Sussex Incidence: prostate cancer incidence increased in the period 2014-18. More recently, the age standardised incidence rate for prostate cancer for East Sussex CCG decreased in the period 2016-18 to 2018-2020. However, 2020 was a pandemic year which will have affected case ascertainment. East Sussex prostate cancer incidence was significantly higher than England in 2020.
- District and Borough Incidence: there were rising prostate cancer incidence rates in all Districts and Boroughs, except Lewes District, in the period 2011-15 to 2014-18. The significantly higher prostate cancer incidence rates in Wealden and Rother Districts compared to England in the periods 2014-18 and 2015-2019 [pre-pandemic] are likely

to have been driven by differences in symptom awareness, help seeking and testing, rather than genuine differences in population disease.

- East Sussex Mortality: the age-standardised mortality rate for prostate cancer in East Sussex was stable for the period 2014-16 to 2018-20, and not significantly different from England.
- The age-standardised mortality rate from prostate cancer in Wealden District was significantly raised compared to England in 2018 to 2020, whereas the mortality rate for Rother District was not raised. These mortality rates are calculated on relatively small numbers of deaths. It would be unwise to make any inference based on a single data point, however it would be prudent to explore this finding further including staging at diagnosis.
- It is important to identify persons who have red flag symptoms: blood in urine [blood in pee, also referred to as haematuria] and to offer an informed discussion to those men at substantially greater familial risk in the local population.
- The risk of overdiagnosis and overtreatment remains.

This briefing uses the most recently available data sources. One- and five-year survival are shown for those patients diagnosed between 2015-19, up until 2020. Survival data up until 2021 have also been included but not charted. We are most grateful to Cancer Research UK for their analyses and www.cancerdata.nhs.uk. What are our plans now and in the future?

National and Local Policy and Strategy:

The NHS Sussex Improving Lives Together Strategy builds on the NHS Long Term Plan. It sets out actions to improve uptake of screening and early cancer diagnosis, and to reduce inequalities experienced by parts of the community.⁸ This includes ensuring improvements in quality of care, treatments and advances in precision medicine to enable patients to be offered more personalised therapeutic options.

The Surrey Sussex Cancer Alliance brings together health, social care and third sector organisations to work together to transform cancer care, improve cancer survival and driving forward the aims of the [NHS Long Term Plan for Cancer](#).⁹

The National Health Service England (NHSE) Core20PLUS5 approach supports the reduction of health inequalities at national and system level.¹⁰ The Core20 identifies the most deprived 20% of the population through the national Index of Multiple Deprivation (IMD). The '5' - identifies '5' clinical areas requiring accelerated improvement which includes 75% of cancer cases to be diagnosed at stage 1 or 2 by 2028.

Primary Care Networks (PCNs) receive funding to increase cancer screening uptake and earlier diagnosis.¹¹

Routes to Diagnosing Prostate Cancer

In the context of the above there is active research nationally to reduce late diagnosis of prostate cancer.

What is the difference between screening and case finding?

Screening refers to the identification of disease in a person before they develop any symptoms of the disease. Screening can be a one-off test, or it can be a sequence of tests at regular intervals over time.

Case finding refers to the identification of persons with the disease in a population, with or without any symptoms. It usually refers to a one-off activity at a given point in time, without a systematic process of call and recall.

Based on the last UK National Screening Committee [NSC] review of prostate cancer in November 2020, screening of men without symptoms is not currently recommended.¹²

Reasons why the NSC does not recommend PSA screening:

The PSA test is not accurate enough to detect prostate cancer that needs treatment. It can falsely find men who do not have prostate cancer. Most men have a PSA level less than 3ng/ml. Around 75% (3 in 4) of men with raised PSA level (greater than or equal to 3ng/ml) will not have cancer. This means that many men might have to undergo unnecessary and often unpleasant tests and/or unnecessary treatment.

The PSA test can also miss some cancers. A small proportion of men who have a low PSA level will later be found to have prostate cancer.

It is still unclear if other tests such as an MRI scan, with or without PSA, are accurate enough. Research is also currently looking at whether a method for predicting prostate cancer risk using a combination of a blood test and other information about a man could be more accurate. More studies are necessary to confirm the early results.

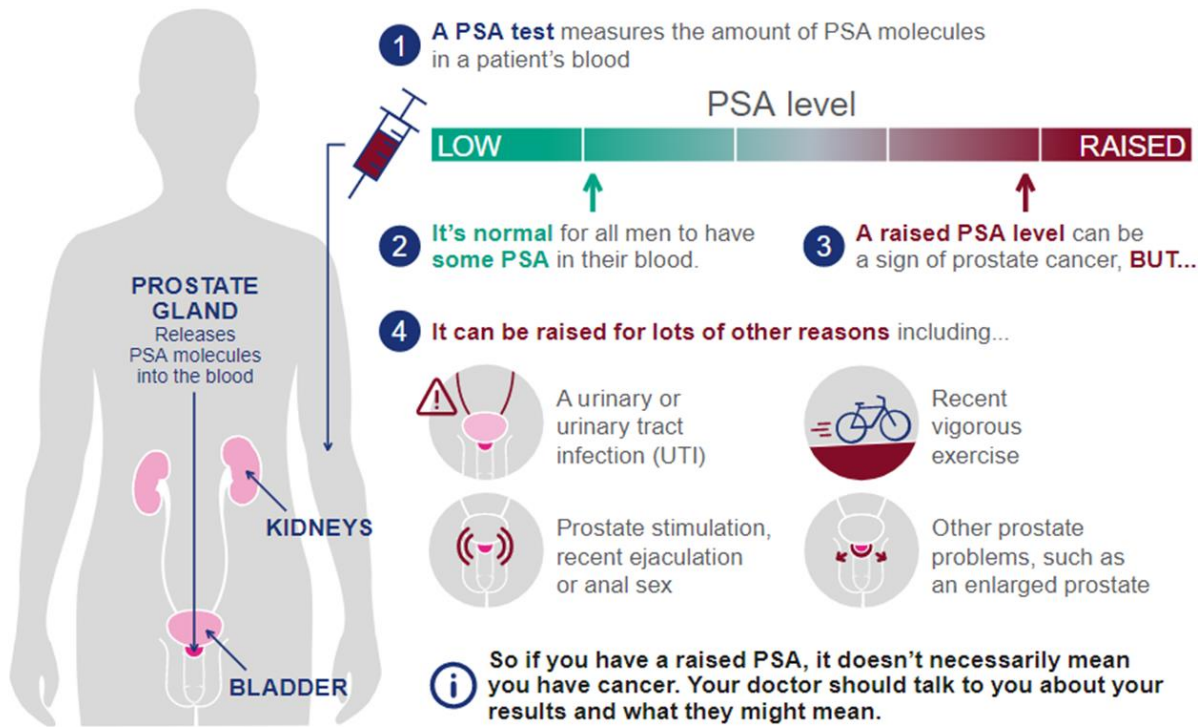
A PSA-based screening programme could harm men as some of them would be diagnosed with a cancer that would not have caused them problems during their life. This would lead to additional tests and treatments which can also have harmful side effects.

At present, there is no single treatment that is definitively better for patients with early-stage prostate cancer, as treatments' effectiveness needs to be weighed up against their side effects.

What are the reasons for having a raised PSA in a man aged 50 or older?

The reasons why a man can have a raised PSA level in the blood are shown below, Figure 1.

Figure 1 Reasons for a raised PSA level



National prostate cancer risk management programme¹³

Nationally, the prostate cancer risk management programme (PCRMP) information helps GPs give clear and balanced information to asymptomatic men who ask about prostate specific antigen (PSA) testing.

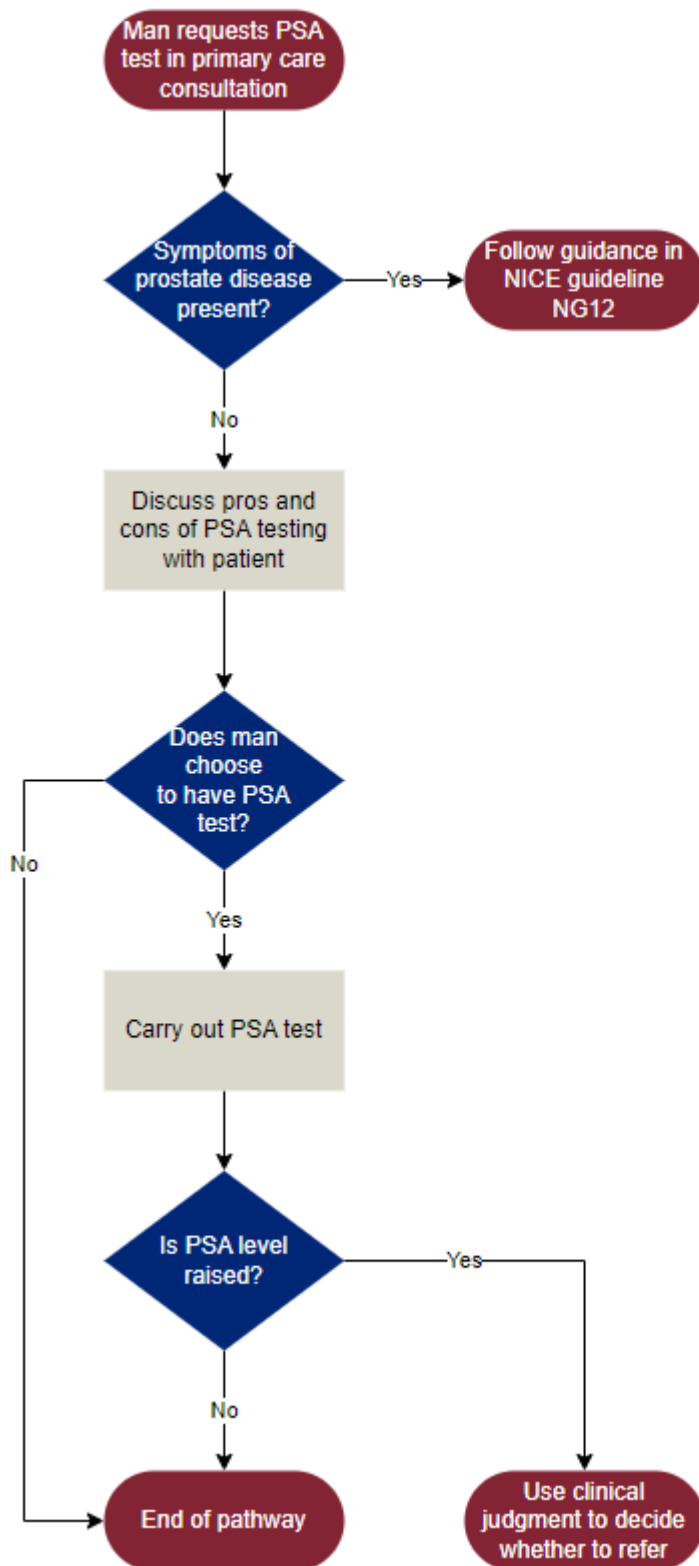
Any asymptomatic man aged 50 and over can make an appointment with their GP to discuss having the PSA test. The PSA test is available free to any man aged 50 and over who decides to have a PSA test based on this balanced information.¹⁴

In the absence of symptoms, GPs should discuss the pros and cons of PSA tests with the patient. If a subsequent PSA test result shows raised PSA levels, the GP should use their clinical judgement to consider whether a referral is appropriate.

GPs should use their clinical judgement to manage asymptomatic men and those aged under 50 who they consider to be at increased risk of prostate cancer.

The decision pathway is shown in Figure 2.

Figure 2 Decision pathway for an asymptomatic man requesting PSA testing.



NICE Guidelines

GPs should follow NICE guidelines for the management of men who have symptoms of prostate disease, Figure 3.¹⁵ There is a higher action threshold set in older age groups because older men have larger prostate glands producing more PSA.

Figure 3 NICE guidelines for managing men with prostate cancer symptoms.

Prostate cancer

1.6.1 Refer people using a [suspected cancer pathway referral](#) (for an appointment within 2 weeks) for prostate cancer if their prostate feels malignant on digital rectal examination. [2015]

1.6.2 Consider a prostate-specific antigen (PSA) test and digital rectal examination to assess for prostate cancer in people with:

- any lower urinary tract symptoms, such as nocturia, urinary frequency, hesitancy, urgency or retention or
- erectile dysfunction or
- visible haematuria. [2015]

1.6.3 Consider referring people with possible symptoms of prostate cancer, as specified in recommendation 1.6.2, using a suspected cancer pathway referral (for an appointment within 2 weeks) for prostate cancer if their PSA levels are above the threshold for their age in table 1. Take into account the person's preferences and any comorbidities when making the decision. [2021]

Table 1 Age-specific PSA thresholds for people with possible symptoms of prostate cancer

Age (years)	Prostate-specific antigen threshold (micrograms/litre)
Below 40	Use clinical judgement
40 to 49	More than 2.5
50 to 59	More than 3.5
60 to 69	More than 4.5
70 to 79	More than 6.5
Above 79	Use clinical judgement

Which symptoms should prompt referral?

The most serious symptom [red flag symptom] is blood in urine [haematuria]. Please note that visible haematuria would prompt a 2 Week Wait referral to the urology department in its own right for investigation focusing on potential bladder, renal or indeed prostate cancer. The most serious physical sign is abnormal rectal examination.

NICE guidelines have a detailed summary of the usefulness, the level of risk [or chances] of having prostate cancer in someone who has the symptom [referred to as the positive predictive value]. This can be expressed as either the predictive value of a single symptom, or combination of two symptoms.¹⁶

The risks of having prostate cancer of single symptoms or signs presenting in a primary care setting ranged from 0.08% (for dyspepsia, discomfort in the upper abdomen) to 12% (for malignant rectal exam; based on 5 studies, N = 7440).

The risks of having prostate cancer of symptom and sign pairs presenting in a primary care setting ranged from 1.8% (for haematuria, blood in urine + frequency/urgency) to 15% (for nocturia, passing urine at night + malignant rectal exam; based on 1 study, N = 1297). This study was a case-control study (meaning that there was a high risk of bias for patient selection in the study).

National and local context - known health inequalities

Family History Risk

A genetic contribution to prostate cancer risk has been well documented.¹⁷ Factors suggestive of a genetic contribution to prostate cancer include the following;

- 1) multiple affected first-degree relatives (FDRs) with prostate cancer, including three successive generations with prostate cancer in the maternal or paternal lineage. The younger the age of onset of prostate cancer in a brother or father the greater the risk.
- 2) early-onset prostate cancer (age younger than 56 years of age)
- 3) prostate cancer with a family history of other cancers (e.g., breast, ovarian, pancreatic)

Some of the association in families is related to the increased screening in families thought to be at greater risk.

In Sweden the cumulative (absolute) risks of prostate cancer among men in families with two or more affected cases were 5% by age 60 years, 15% by age 70 years, and 30% by age 80 years, compared with 0.45%, 3%, and 10%, respectively, by the same ages in the general population.^{18,19}

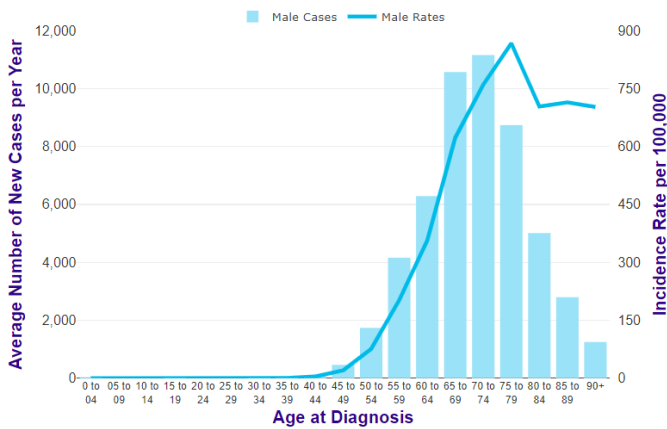
There is no genetic counselling available for those without prostate cancer currently or specific screening pathway.

Prostate cancer incidence

The incidence of prostate cancer increases with age. Figure 4 shows the age-specific incidence rates for prostate cancer in the UK.

Figure 4 Age specific incidence rates of cancer of the prostate and number of new cases per year in the UK

Prostate cancer (C61), Average Number of New Cases per Year and Age-Specific Incidence Rates per 100,000 Male Population, UK, 2016-2018



Source: Cancer Research UK

Incidence rates for prostate cancer in the UK are highest in males aged 75 to 79 (2016-2018). Each year around a third (34%) of all new prostate cancer cases in the UK are diagnosed in males aged 75 and over (2016-2018).

Prostate cancer incidence rates in England are 17% lower in the most deprived fifth [quintile] of areas compared with the least deprived (2013-2017).

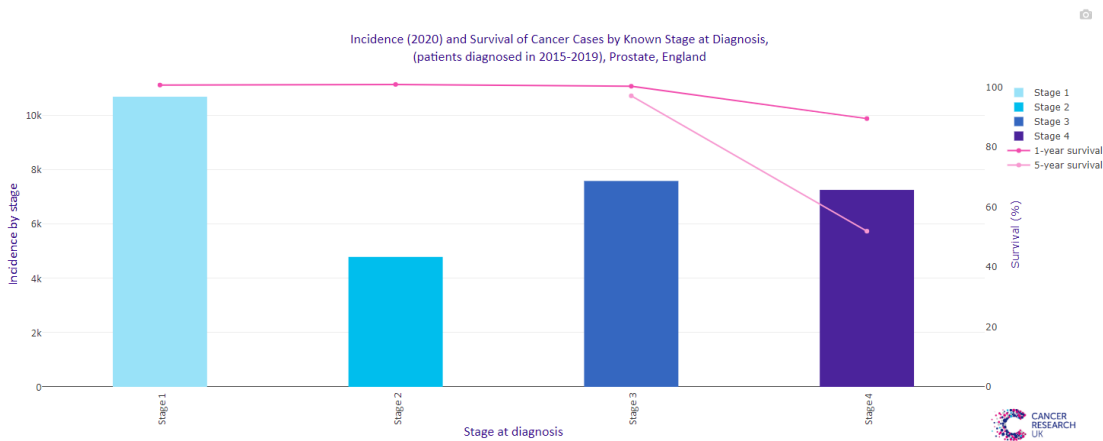
Survival

Survival depends on the stage at which prostate cancer is first diagnosed.

Staging: is a measure of how large a cancer is and whether it has spread. Cancer statistics routinely report four stages at the time of diagnosis. [Please see the [Glossary](#) for definitions of the stages].

The proportions of prostate cancer cases diagnosed in England in 2020 at a particular stage were: 23.9% metastatic (at stage 4), 25% high risk/locally advanced disease (at stage 3), 15.8% intermediate (at stage 2) and 35.3% low risk (at stage 1), Figure 5.²⁰ Survival at five years is 100% at stage 1 and 2, 97% at stage 3 and 53% at stage 4.²¹

Figure 5 Incidence [in 2020] and survival by stage at diagnosis [shown for patients diagnosed in 2015-19]



Source: [Early Diagnosis Data Hub](#)

Survival by age group

Prostate cancer mortality

In England in 2020, the mortality rate for prostate cancer was 14% higher for males living in the most deprived areas (48 per 100,000 people) when compared to males living in the least deprived areas (43 per 100,000 people).²² There is a very small increase in the Life Expectancy gap of [+0.04 years] between the most deprived fifth of the population and the least deprived fifth.

What is the local picture in East Sussex?

In summary, in the three years between 2018-20 in East Sussex there were:

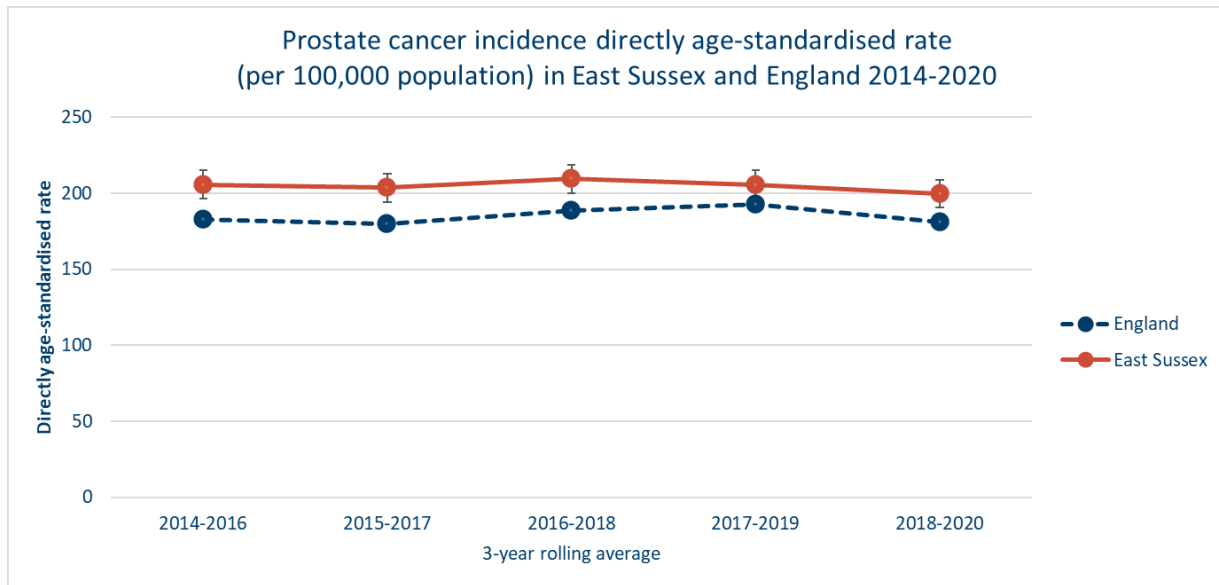
- 1,933 new [incident] cases of carcinoma of the prostate
- 474 deaths from prostate cancer

Local trends in incidence and mortality from prostate cancer in East Sussex

In East Sussex, prostate cancer incidence had been increasing in the period 2014-18. More recently, the age standardised incidence rate for prostate cancer for East Sussex CCG appears to have decreased in the period 2016-18 to 2018-2020. However, 2020 was a pandemic year which will have affected case ascertainment. East Sussex prostate cancer incidence was significantly higher than England in 2020, the year for which the most recent data are available.

Trends in the incidence of prostate cancer [Directly Standardised Rate per 100,000] in East Sussex and England for the period 2014-20 are shown in Figure 6.

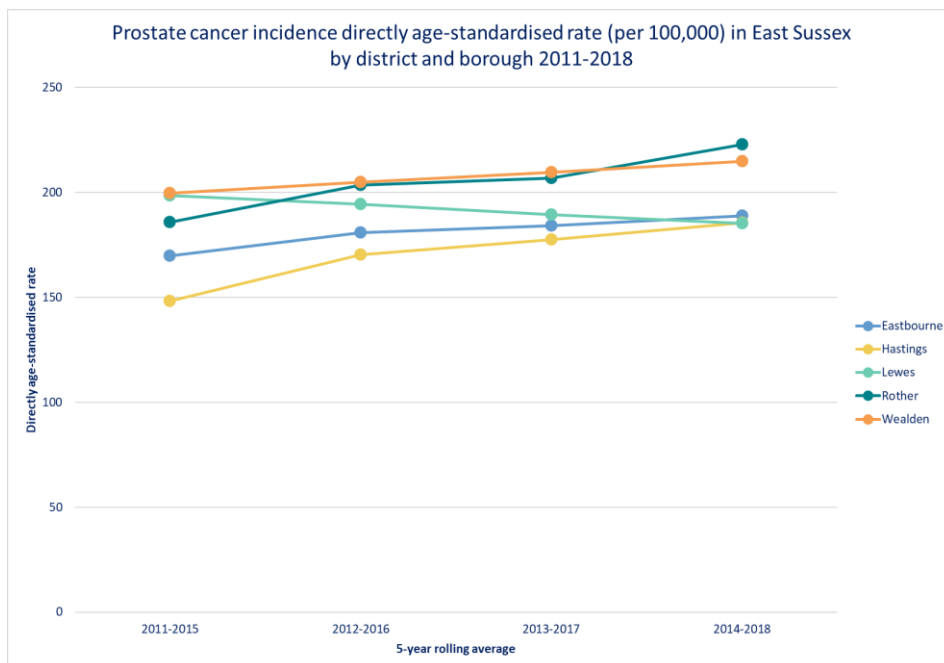
Figure 6 Prostate cancer incidence in East Sussex, DSR per 100,000, 2014-16 to 2018-2020



Source: <https://www.cancerdata.nhs.uk/>

The incidence rates of prostate cancer had been increasing in all East Sussex local authorities, except Lewes District in the period 2011-2015 to 2014-2018, Figure 7.

Figure 7 Prostate cancer incidence [DSR per 100,000] in East Sussex by district and borough, 2011-2015 to 2014-2018



Source: PH Dept. ESCC Based on data from <https://www.cancerdata.nhs.uk/>

The incidence rates were higher than East Sussex in Rother and Wealden Districts for the period 2014-18 and significantly higher than England, Table 2.

Table 2: Prostate cancer incidence rates for the period 2014-18

	Total	Age Standardised Rate	Lower Confidence Interval	Upper Confidence Interval
Eastbourne	510	189	173	206
Hastings	386	185	167	205
Lewes	520	185	170	202
Rother	705	223	206	240
Wealden	966	215	201	229
East Sussex	3087	202	195	209
England	215422	185	184	186

Source: <https://www.cancerdata.nhs.uk/>

The incidence of prostate cancer in East Sussex, and in Wealden and Rother Districts were also statistically significantly higher than England in the period 2015-2019. [Source Fingertips.](#)

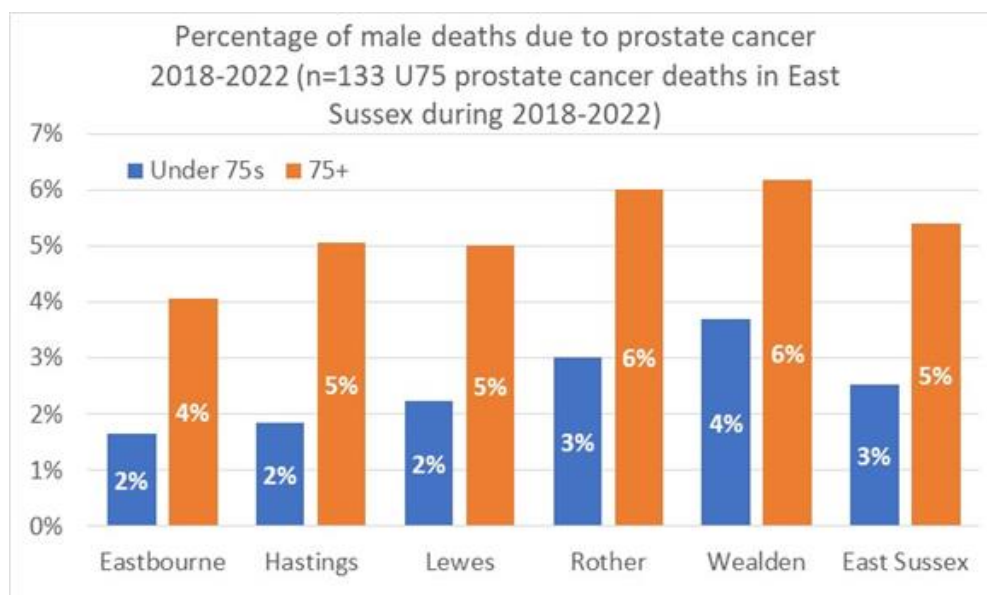
The higher incidence rates may reflect differences in PSA testing practice, or patients presenting with symptoms.

Mortality from prostate cancer in East Sussex

There are about 150 deaths per year from prostate cancer in East Sussex.

Prostate cancer contributed to 5% of all deaths in men aged 75 and over, and 3% of all deaths in men under 75 in the period 2018 to 2022. In Rother and Wealden Districts there were higher proportions of all deaths [6%] from prostate cancer in men aged 75 and over, Figure 8.

Figure 8: percentage of male deaths due to prostate cancer in East Sussex 2018 to 2022

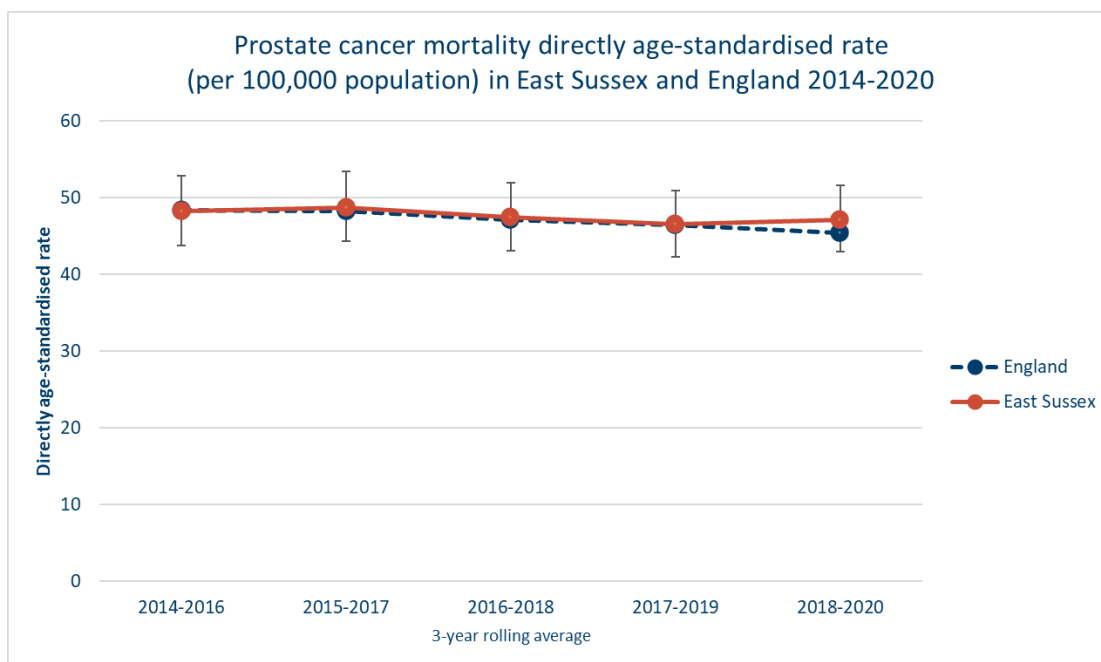


Source: ONS mortality files. ESCC PH Dept.

Mortality trends

The age-standardised mortality rate for prostate cancer in East Sussex has been stable for the period 2014-16 to 2018-20, and not significantly different from England, Figure 9.

Figure 9 Age-standardised mortality rate for prostate cancer in East Sussex 2014-16 to 2018-20.



Source: <https://www.cancerdata.nhs.uk/>

The directly standardised mortality rates per 100,000 from prostate cancer for the period 2014-18 at local authority level were not statistically significant compared to England.

The Directly Standardised mortality rates from prostate cancer [three year moving averages] in each local authority for the period 2018 to 2020 are shown in Table 3.

District and Borough level mortality rates

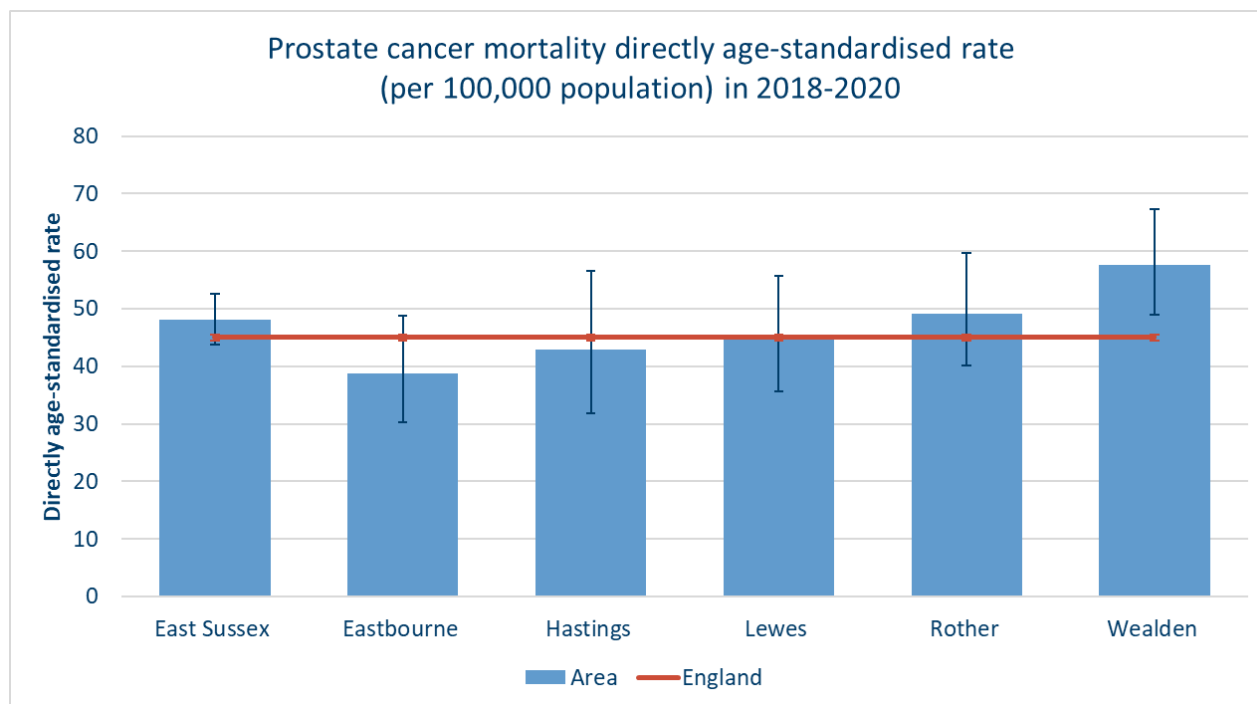
- In Wealden District the prostate cancer mortality rate is statistically significantly higher than England, whereas for Rother District this is not significant, Table 3 and Figure 10. These mortality rates are calculated on relatively small numbers of deaths. It would be unwise to make any inference based on a single data point, however it would be prudent to explore this finding further including staging at diagnosis.

Table 3 Directly standardised mortality rates per 100,000 from prostate cancer in each local authority in East Sussex [2018 to 2020].

	Number of Deaths 2018-20	Directly standardised rate	Lower 95% confidence limit	Upper 95% confidence limit	Statistical significance compared to England
England	30,225	45	44	45	
East Sussex	470	48	44	53	ns
Eastbourne	75	39	30	49	ns
Hastings	50	43	32	57	ns
Lewes	80	45	36	56	ns
Rother	105	49	40	60	ns
Wealden	160	58	49	67	significant

Source: NHS Digital²³

Figure 10: Prostate cancer mortality directly age standardised rate [per 100,000 population] in 2018-20



Source: NHS Digital. PH Dept. ESCC

Equalities groups

Race and ethnicity- Incidence and mortality of prostate cancer differ according to ethnicity: each are twice as high in Black males compared to White males in both the USA^{24,25} and the UK,^{26,27,28} whereas Asian men in the UK experience lower rates.

Prostate cancer incidence in Black compared with White males was 2.9 times higher in those aged 0-64, and 1.9 times higher in those aged 65-90+.²⁹

Black men without prostate cancer have higher PSA levels than White or Hispanic men. The diagnostic accuracy of PSA for prostate cancer for men of different ethnic groups is unknown, and current guidance for PSA test interpretation does not account for ethnicity.³⁰

Age-Mortality rates for prostate cancer in the UK are highest in males aged 90+ (2017-2019). Each year three-quarters of all prostate cancer deaths (75%) in the UK are in males aged 75 and over (2017-2019).

Gender- affects males only.

Sexual orientation- prostate stimulation and anal sex can raise PSA levels. Gay men are at greater risk of overdiagnosis as there are other explanations for a raised PSA [please see [earlier section](#)]. Retesting at an appropriate time may be necessary.

Transgender

The prostate gland is not removed in transgender surgical procedures. Feminising hormones can affect [lower] blood PSA levels. Please refer to the LGBTQ+ JSNA report for other issues.

Religion / belief - peer group influences may affect how men seek health care.

Carers - Issues are especially relevant to the management of patients at stage 4.

Disability

Men with a physical disability have greater difficulty with GU symptoms [for example MS, spinal cord lesions, and the diagnosis may be more easily overlooked in consequence.

Serious long-term outcomes from acquired disability after treatment may be unevenly spread in the population.

Some issues are very relevant to complications in survivors after surgery for prostate cancer for example: urinary incontinence; impotence; and post radiotherapy complications [urethral strictures and proctitis]. In addition, androgen deprivation medical treatment affects quality of life and increases CVD risk.

Wider determinants

Deprivation and late diagnosis

Unlike most other diseases prostate cancer incidence rates in England are 17% lower in the most deprived fifth [quintile] of areas compared with the least deprived (2013-2017).

We currently do not know whether late diagnosis at stage 4 is occurring in men from more deprived areas locally. Raised mortality has been observed nationally with increasing deprivation, suggesting later access to diagnosis and treatment. Further exploration is needed to understand the causes of this.

Access to Clinical Trials

In general, limited recruitment to clinical trials is a concern as they are crucial in facilitating rapid access to the most innovative treatments.³¹

Cancer patients in the most deprived areas receive only half the number of referrals to early-stage clinical trials compared to their counterparts in the least deprived areas.³²

A qualitative study observing the attitudes of black men with prostate cancer towards involvement in cancer research concluded that a sense of mistrust was a barrier to participation in clinical research.³³

Service provision and use

A patient with suspected prostate cancer will be referred by their GP under the two-week wait rule for an urgent urology outpatient assessment. They may then undergo diagnostic imaging with an MRI scan before consideration of the need for a biopsy [taking tissue samples from suspicious areas] of the prostate gland.

A proportion of patients will present for the first time [with urinary retention or metastatic disease] and be diagnosed as an emergency case.

Predicting Future Need

How many men in East Sussex are in the age groups at greatest risk?

The number of males in each district and borough are shown in Table 5.

Table 4 Number of males in East Sussex and rates of prostate cancer

	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 +
AS incidence rate per 100,000	202	356	623	760	867	704	714	702
East Sussex	20,000	18,200	16,300	18,000	13,300	8,700	5,100	2,500
Expected no. of new cases per year in East Sussex	40	65	102	137	115	61	36	18

Source: ESiF 2021 Census; CR-UK age specific incidence rates for prostate cancer

For example, in the age band 70 to 74, using national data, we would expect to see 137 new cases per year in East Sussex [18,000/100,000*760]. The expected total number of new cases [574 per year] is lower than the observed number of incident cases per year [640].

The number of males in each District and Borough local authority aged 55 and over is shown in Table 6.

Table 5 Number of males in each District and Borough local authority aged 55 and over

	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 +
Eastbourne	3,400	3,100	2,700	3,000	2,200	1,600	900	500
Hastings	3,400	2,900	2,500	2,500	1,600	1,000	500	300
Lewes	3,600	3,300	3,000	3,300	2,400	1,600	1,000	500
Rother	3,500	3,300	3,200	3,900	2,900	1,900	1,100	500
Wealden	6,100	5,600	4,900	5,300	4,200	2,600	1,500	700

Source: ESiF

Projections for the male population aged 65+ in East Sussex [5 and 10 years]

The number of males aged 65 and over is predicted to increase considerably in the next ten years, Table 7. For this reason, if age-specific incidence rates do not change, there will be more new cases of prostate cancer per year in East Sussex in the next 10 years.

Table 6 Projections for the male population aged 65+ in East Sussex [5 and 10 years]

Year	Age	2022	2027	2032	%change by 2032
East Sussex	65-74	34,788	37,384	43,732	25.7
	75-84	24,783	29,470	30,056	21.3
	85+	8,711	10,227	14,198	63.0
Eastbourne	65-74	5,832	6,226	7,267	24.6
	75-84	4,396	5,207	5,186	18.0
	85+	1,813	2,090	2,792	54.0
Hastings	65-74	4,966	5,246	6,172	24.3
	75-84	3,025	3,592	3,659	21.0
	85+	995	1,143	1,586	59.4
Lewes	65-74	6,373	6,675	7,759	21.7
	75-84	4,449	5,388	5,443	22.3
	85+	1,626	1,882	2,515	54.7
Rother	65-74	7,272	7,757	8,937	22.9
	75-84	5,488	6,508	6,579	19.9
	85+	1,865	2,178	3,096	66.0
Wealden	65-74	10,346	11,479	13,597	31.4
	75-84	7,425	8,776	9,189	23.8
	85+	2,412	2,933	4,210	74.5

Source: ESiF

Local strategy and plans

There is the opportunity to reinforce national communications campaigns to raise symptom awareness locally [red flag symptoms e.g., haematuria, blood in urine].

There is the opportunity to identify those persons at substantially greater familial risk of prostate cancer in the local population and offer them an informed discussion.³⁴ This would require a clear care pathway, service guidelines and sufficient capacity in the genetics counselling services to receive onward referrals.

East Sussex Incidence

In East Sussex, prostate cancer incidence had been increasing in the period 2014-18. More recently, the age standardised incidence rate for prostate cancer for East Sussex CCG appears to have decreased in the period 2016-18 to 2018-2020. However, 2020 was a pandemic year which will have affected case ascertainment, so this observation regarding the trend should be viewed with caution pending further data becoming available. Nonetheless, East Sussex prostate cancer incidence was significantly higher than England in 2020, the year for which the most recent data are available.

District and Borough Incidence

There had been rising prostate cancer incidence rates in all Districts and Boroughs, except Lewes District, in the period 2011-15 to 2014-18. Notably there were significantly higher prostate cancer incidence rates in Wealden and Rother Districts compared to England in the periods 2014-18 and 2015-2019 [pre-pandemic].

East Sussex Mortality

The age-standardised mortality rate for prostate cancer in East Sussex was stable for the period 2014-16 to 2018-20, and not significantly different from England.

However, the age-standardised mortality rate from prostate cancer in Wealden District was significantly raised compared to England in 2018 to 2020, whereas the mortality rate for Rother District was not raised. These mortality rates are calculated on relatively small numbers of deaths and it would be unwise to make any inference based on a single data point, however further exploration of this finding is recommended. NHS Digital prefer to report prostate cancer mortality data at upper tier [county level].

These epidemiological observations require further explanation. They may be due to unexplained variation in PSA testing practice and onward referral. Men in deprived areas certainly do get prostate cancer and may not be reflected fully in the data, given that national data shows higher mortality rates in deprived areas.

Further Unanswered questions

Trends in stage 4 prostate cancer

What has happened to the age-specific incidence rates of metastatic [stage 4] prostatic cancer in East Sussex over the time period 2013-2020? Who is being diagnosed at stage 4? Is there a deprivation effect locally?

It would be helpful for a local case note clinical audit of the pathway to diagnosis to understand reasons for late diagnosis.

How big is the risk of overdiagnosis?

Prostate Cancer UK have shared their concerns that a focus on diagnosing cancers at stages 1 and 2 could result in more people diagnosed with clinically insignificant and otherwise harmless cancers, leading to unnecessary worry and anxiety.³⁵

Explaining risks and shared decision making

Can shared decision making [informed consent to testing] be improved in this context for those at greatest ongoing risk?³⁶ Does the QCancer chart in its current format adequately explain benefits and risks of PSA tests?

How is active surveillance being implemented locally in primary care?

PSA tests

How many men over 50 are coming forward per year on their own account and asking to have a PSA test in the context of a consultation? How many PSA tests are requested by the urology team in hospital?

How is the 'normal' range for PSA defined for asymptomatic men in each age group?

How does ethnicity affect the definition of normal range?

MRI Imaging

How much has the balance of benefit and risk of screening for prostate cancer changed in recent years? Recent evidence has shown that diagnostic MRI testing for men who test positive for high PSA levels can reduce the risks of overdiagnosis and unnecessary biopsies.

New methods of identifying persons at increased risk and methods of screening are the subject of ongoing clinical trials in Europe.³⁷

Conclusion:

In summary, at present the evidence is not yet available as to how much risks would change if prostate screening were to be introduced at a population level.³⁸

Glossary

Cancer incidence: the number of new cases of prostate cancer diagnosed each year. In 2020 a total of 36,016 new prostate cancers were diagnosed in England.

Prostate Specific Mortality: the number of men who die from prostate cancer each year. The data are expressed as an age standardised rate per 100,000. Age standardisation makes allowance for the fact that different populations have different age structures and enables comparison of rates of prostate cancer between populations.

If a death certificate is the only evidence of someone having a prostate cancer diagnosis it is used by the Cancer Registry to obtain more evidence and may subsequently result in a new cancer registration. In mortality statistics published by the Cancer Registry, they use the underlying cause of death on the death certificate only. This practice matches how ONS report the National Statistics in mortality for all diseases.

Survival: is the time in years from the point of diagnosis to death. It is reported as survival after one, five and ten years after diagnosis. Survival after the diagnosis also depends on how old someone is when they are first diagnosed with prostate cancer.

Staging: The TNM system is a way of staging prostate cancer. It stands for Tumour, Node, Metastasis. Staging means describing the size of the cancer and how far it has grown.

Tumour (T) Tumour describes the size or area of the cancer. There are 4 main T stages of prostate cancer - T1 to T4.

T1 means the cancer is too small to be seen on a scan or felt during an examination of the prostate.

T2 means the cancer is completely inside the prostate gland.

T3 means the cancer has broken through the capsule (covering) of the prostate gland.

T4 means the cancer has spread into other body organs nearby, such as the back passage, bladder, or the pelvic wall.

N stands for Node. Whether the lymphatics are involved [Y/N]

M stands for metastasis. Whether the cancer has spread to other parts of the body [Y/N]

Staging is also described in the form of numerical staging, and this is described below;

Stage 1

- means the cancer is in only half of one side of the prostate, or less. It is completely contained within the prostate gland.

Stage 2

- means the cancer is in more than half of one side of the prostate. But it is still completely contained within the prostate gland.

Stage 3

- means the cancer has broken through the covering (capsule) of the prostate gland. It may have spread into tubes that carry semen (seminal vesicles).

Stage 4

- the cancer has spread into nearby body organs, such as the back passage or bladder.
- the cancer has spread to nearby lymph nodes.
- the cancer has spread to other parts of the body outside the pelvis, such as the lungs or liver.

Lifetime risk: the proportion of men who will get the disease in their lifetime. In most cases, prostate cancer progresses slowly and will not cause morbidity or mortality during a man's natural lifetime.

Active surveillance: is the process of following up a man with a raised PSA level over time to see if this changes. If this rises to a significant extent then a referral to hospital clinic is made with a view to further investigation.

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