This Prostate Cancer Risk Management Programme (PCRMP) sheet helps GPs give clear and balanced information to asymptomatic men who ask about prostate specific antigen (PSA) testing. The PSA test is available free to any well man aged 50 and over who requests it.

GPs should use their clinical judgement to manage symptomatic men and those aged under 50 who are considered to have higher risk for prostate cancer.

Prostate cancer
Each year in the UK about 47,000 men are diagnosed with prostate cancer and about 11,000 die from the disease. The most common age of diagnosis is 65 to 69.

Men are at higher risk if they:

• have a family history of prostate cancer
• are of black ethnic origin – lifetime risk 1 in 4 compared to 1 in 8 for white men
• are overweight or obese (specifically for advanced prostate cancers)

Slow-growing tumours are common and may not cause any symptoms or shorten life. Some tested men may therefore face unnecessary anxiety, medical tests and treatments with side-effects.

PSA test
The test aims to detect localised prostate cancer when treatment can be offered that may cure cancer or extend life. It is not usually recommended for asymptomatic men with less than 10 years’ life expectancy.

Evidence suggests PSA screening could reduce prostate-cancer related mortality by 21%.

About 3 in 4 men with a raised PSA level (≥3ng/ml) will not have cancer. The PSA test can also miss about 15% of cancers.

Before a PSA test men should not have:

• an active urinary infection
• ejaculated in previous 48 hours
• exercised vigorously in previous 48 hours
• had a prostate biopsy in previous 6 weeks

When taking blood:

• ensure specimen will reach laboratory in time for serum to be separated within 16 hours
• send samples to laboratories taking part in UK National External Quality Assessment Service

Digital rectal examination (DRE)
DRE allows assessment of the prostate for signs of prostate cancer (a hard gland, sometimes with palpable nodules) or benign enlargement (smooth, firm, enlarged gland). A gland that feels normal does not exclude a tumour.

Biopsy
A biopsy can diagnose prostate cancer at an early stage when a cure may be possible.

About 2 out of 5 men describe biopsy as painful. The most common complications (9 out of 10 men) are bleeding and infections. Most men experience blood in urine and sperm after biopsy.

Some prostate cancers will be missed at biopsy (up to 1 in 5 men). If the biopsy is negative, follow-up and additional biopsies may be needed.

Management and treatment
Some men may benefit from treatment for localised prostate cancer. There is no clear evidence as to the best treatment option for localised prostate cancer.

The main treatment options are:

• active surveillance
• watchful waiting
• radical prostatectomy (open, laparoscopic or robotically assisted laparoscopic)
• external beam radiotherapy (EBRT)
• brachytherapy (low and high dose rate)

There are important quality of life differences between each option. The options available depend on the stage of disease, the man’s age and general health.

Active surveillance involves repeat PSA testing and biopsies. Surgery and radiotherapy may offer the possibility of a cure but can have significant side-effects.

See patient information sheet for summary of the potential benefits and harms of PSA testing.
PSA testing and prostate cancer patient pathway

Consultation in primary care

No PSA test → Informed choice

PSA in usual range

PSA level raised

Age: 50-69
PSA value: ≥3.0 ng/ml
Refer to specialist
Informed choice

No cancer diagnosed

Localised prostate cancer
Informed choice

Locally advanced prostate cancer

Cancer diagnosed

Metastatic prostate cancer
Hormone or chemotherapy
Palliation

Active surveillance
Benefits:
• avoids overtreatment
• non-invasive
• radical, curative treatment can be given if sign of disease progression
Harms:
• metastatic cancer may develop and curative treatment may not be an option

Watchful waiting
Benefits:
• avoids overtreatment
• non-invasive
Harms:
• metastatic cancer may develop and curative treatment may not be an option
• increased risk of dying from prostate cancer

Radical prostatectomy
Benefits:
• aim is to cure or control
Harms:
• up to 20% have residual tumour (about half of these will develop biochemical or clinical recurrence)
• side effects include infertility, erectile dysfunction and urinary incontinence

External beam radiotherapy and brachytherapy*
Benefits:
• aim is to cure or control
Harms:
• side effects can include erectile dysfunction, urinary symptoms, bowel problems and infertility

* with or without hormone therapy

The PCRMP resources also include a patient information sheet and full evidence review:
see www.gov.uk/guidance/prostate-cancer-risk-management-programme-overview

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