



PROSTAGRAM

MRI SCREENING FOR PROSTATE CANCER

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Foreword: Professor Hashim Ahmed

Each year in the UK, nearly 50,000 men will be diagnosed with prostate cancer and over 12,000 will die of the disease. It is estimated that a screening programme could save the lives of between 30 to 50% of these men.

Current screening tests are invasive and unreliable. The blood test prostate specific antigen ('PSA') does not give an accurate enough result and is often accompanied by a internal examination. We need a way to spot prostate cancer that is affordable, accurate and less invasive than current screening methods.

We have developed a 'Prostagram' at Imperial College London which uses magnetic waves to produce a detailed picture of the prostate making it safe as well as non-invasive. It has the potential to change the landscape of prostate cancer diagnosis and treatment in the UK.

With your support, we can take the next step to bring this potentially life-saving test to 4,000 men across the UK. But more than that, your support could lead to the test being available to every man in the UK. We appreciate your interest in the Prostagram project.



Professor Hashim Ahmed
Chair of Urology
Imperial Prostate



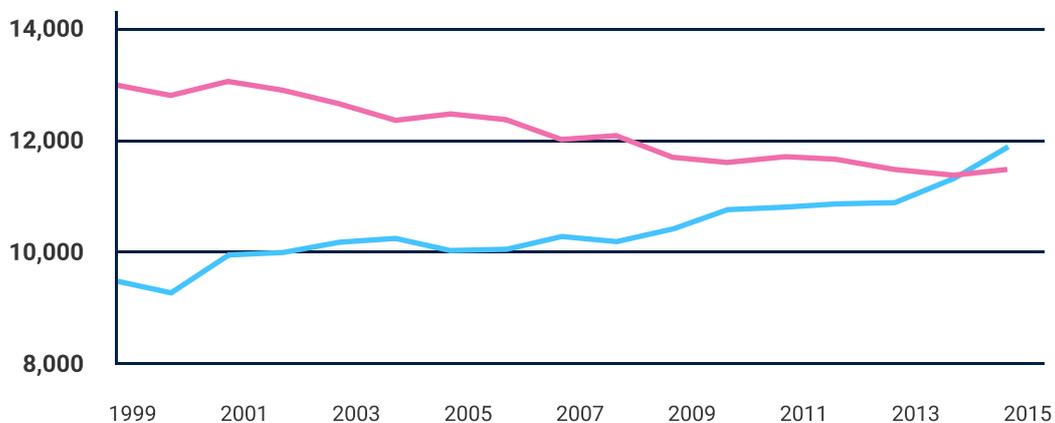
Why do we need a screening test?

Prostate cancer deaths have overtaken those from breast cancer

For the first time, the number of men dying from prostate cancer have surpassed breast cancer deaths. There are more than 12,000 men dying from prostate cancer in the UK each year and 1 in 24 men will die from the disease. Screening can be used to ensure that prostate cancer is caught before it's too late.

Other common cancers have benefited from national screening programmes. For example, a mammogram is used to look for signs of breast cancer in women who don't have any breast symptoms or problems and CT scans are being offered to screen for lung cancer. Yet, the risk of dying from prostate cancer is higher than breast and bowel cancer, both of which have established screening programmes.

UK prostate and breast cancer deaths; 1999-2015



Prostate cancer screening saves lives

Prostate cancer has been described as a silent disease as it does not often cause any symptoms until it has started to grow and spread outside the prostate. If prostate cancer is detected too late then the chance of surviving 10 years falls from 98% to 22%. Regular prostate cancer screening has been shown to reduce mortality from prostate cancer by between 30% to 50% in major studies.

Alternative tests are invasive

PSA does not give any information to doctors about the specific location of cancer inside the prostate. PSA is often accompanied by an internal rectal examination which can help identify a lump in the prostate with cancer. However, some men dread this invasive examination and find it embarrassing. It is known to discourage men from going to the doctor for a prostate check even if there are concerns about prostate cancer.

“

PSA is still a poor test for prostate cancer and a more specific and sensitive test is needed.

”

*UK National Screening Recommendation
on Prostate Cancer Screening - 2016*



Alternative tests are too unreliable

A good screening test finds the disease at an early stage when it is easier to treat and with a greater chance of survival. There is a blood test called PSA but it has not been recommended for prostate cancer screening. PSA has been previously rejected by the national screening committee because it can miss dangerous tumours and tends to find slower growing low-risk cancer which don't cause harm or shorten life. This overdiagnosis leads to men being subjected to the harm of a cancer diagnosis and side effects from treatment without any survival benefit. We need a better test that is more accurate.

What is a Prostagram ?

“ A Prostagram is a simple, non-invasive MRI scan which lasts around 15 minutes.

It is a simplified version of the 30 minute detailed MRI scan. A Prostagram is the first-line test that men who are referred to hospital with a suspicion of cancer receive ”

Making prostate cancer visible

A Prostagram provides highly detailed images of the prostate and identifies suspicious areas within the prostate.

Initial research suggests it is more accurate for detecting dangerous prostate cancer than the traditional PSA blood test.



Better diagnosis and treatment

Once doctors can see any abnormalities in the prostate, these can be targeted with sophisticated MRI-guided targeted biopsy techniques.

It can then be treated using minimally invasive techniques which kill cancer cells without destroying healthy tissue and is less likely to cause side effects such as incontinence and erectile dysfunction.





Safe

Prostagram uses magnetic waves to produce a detailed picture of the prostate making it safe as well as non-invasive.

It avoids the need for rectal examination which many men find uncomfortable and embarrassing.



Developed by experts, for patients

Prostagram has been developed by a team of dedicated researchers with a wealth of experience in prostate cancer diagnostics.

Our mission is simply to develop a safe, effective and non-invasive test which can be offered to all men for prostate cancer.



The Pilot Study

Prostagram has been successfully piloted in a study of over 400 men across the UK completed in 2019. In the pilot we were able to compare different ways of scanning the prostate, optimise each technique and find the best approach.

There was considerable public interest in the study and it was completed 19 months ahead of schedule. The results were released in May 2020 and received widespread international support from journalists, scientific commentators and well-known personalities including the actor Stephen Fry.



Geography of
PROSTAGRAM Recruitent

Prostagram Results

411

Men aged between 55–69 had a **PROSTAGRAM**

4%

Men who participated had significant cancer

53%

Would have been missed by PSA only

Mark's Story

Mark, 61, was diagnosed with prostate cancer after having a Prostagram following a normal PSA test.

Being diagnosed with prostate cancer picked up by the MRI was a bit of a shock. I had some prostate issues about 7 years ago and had a PSA test and everything was fine.

If I hadn't taken part in the trial and just gone to my doctor I would have accepted that my PSA was still completely normal. Now if someone asked me, I'd say to request an MRI scan because the PSA is useful but it does have weaknesses. The cancer was completely removed and I was back at work quickly.



Gamal's Story

Gamal, 57, could be reassured after a normal Prostagram gave him the all clear.

Prostate cancer is particularly prevalent within men of African Caribbean and South Asian background, and it was something that had always been in the back of my mind. When I was told about the study I thought it was a great idea.

I was told my PSA level was low and that my MRI was negative. It's always nice to hear that you don't have anything to worry about.



Stuart's Story

Stuart, 61, was suitable for less invasive treatment known as focal therapy as a Prostagram found his cancer early.

From my point of view the PSA test was ineffective for me. I guess that if it detects it in some people then it's valid, but it wasn't effective for me. It's never a particularly pleasant experience to be told that you've got cancer, but the urologist was very good in talking me through the options that were available.

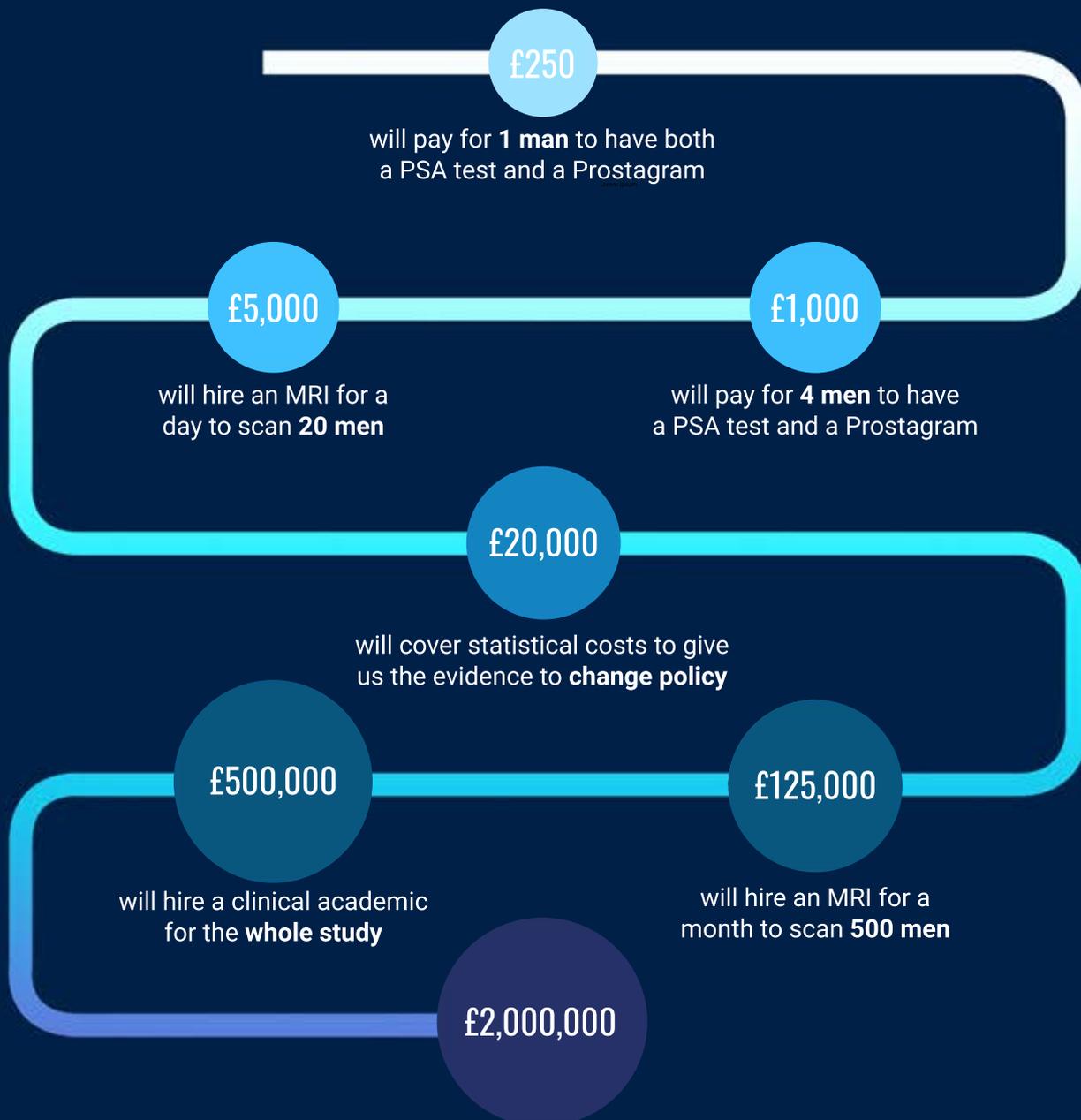
In the end it seemed that the focal treatment option was indeed the best option for me. I feel I am recovering well, and I was very soon returned to playing a bit of golf and going to the gym and getting on with life."



How can you support us

We have launched a £2 million fund raising campaign to bring Prostagram to men across the UK in a large clinical trial.

Your donation will give men the chance to catch their cancer early, when it is easier to treat and there is a greater chance of survival.



To make a donation

The Prostagram Fund is managed by Imperial College London. If you would like to support our work by making a donation, please get in touch with Rowena Morgan, Head of Principal Gift at the Faculty of Medicine:

Phone: +44 (0)7525 313712

Email: rowena.morgan@imperial.ac.uk

Web: <https://www.imperial.ac.uk/giving/donate/prostagram/>

The Path to Prostagram

Changing the national health policy requires the highest level of proof of the benefit to patients

We have a 4 stage plan to provide this level of evidence:

£500,000

Support from high-profile charities including the **Wellcome Trust**, the **British Medical Association**, **The Urology Foundation** and the **Royal College of Surgeons of England**

Stage 1
(Complete)

Development of a simple safe and less invasive scan was completed in 2017

Stage 2
(Complete)

Pilot study to test feasibility and accuracy of the Prostagram was completed in 2019

Stage 3
(Fund-raising)

A national trial offering Prostagram to men across the UK is ready to go once we have reached our £2 million fund-raising goal

Stage 4
(Future)

Introducing Prostagram on a large-scale to test the impact on prostate cancer mortality is planned from 2026

Meet the team behind Prostagram

Imperial Prostate is a team of researchers developing new ways to diagnose and treat prostate cancer. Our mission is to save lives and improve outcomes of men affected by prostate cancer.

“Prostagram could be a game-changer for prostate cancer screening. It has the potential to detect thousands more aggressive cancers earlier when it is easier to treat”

The team is led by Professor Hashim Ahmed who is a Chair of Urology & Consultant Urological Surgeon at Imperial College Healthcare NHS Trust. He is an internationally renowned researcher in prostate cancer and pioneered the field of prostate MRI. His previous research has established new paradigms in prostate cancer and he has been supported with funding from many charities including Prostate Cancer UK, the Medical Research Council (UK) and the Wellcome Trust.



Prof. Hashim Ahmed
Chair of Urology
Imperial Prostate

“We hope that Prostagram can be the equivalent of a Mammogram which is offered to women as a screening test for breast cancer”

Dr David Eldred-Evans is a Royal College of Surgeons research fellow and academic urologist. He developed Prostagram while completing a PhD in prostate cancer screening and set up the first clinical trial. He is supported by charities including the British Medical Association, the Urology Foundation and the Royal College of Surgeons of England. Prior to starting Prostagram, he was funded with a research fellowship from Imperial Health Charity and worked on the award-winning Rapid Access to Prostate Imaging and Diagnosis Pathway.



Dr. David Eldred-Evans
Clinical Fellow in Urology
Imperial Prostate

Co-Investigators

Our senior clinical team use their experience and skills to determine the strategic direction of Prostagram



Mr Mathias Winkler
Consultant Urologist
Imperial College Healthcare NHS Trust



Dr Hemmy Sokhi
Consultant Radiologist
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Dr Henry Tam
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NIHR | Imperial Biomedical
Research Centre

