

New hospitals join pioneering study to improve prostate cancer diagnosis using AI

- Six new NHS trusts across England will receive funding for ground-breaking trial
- AI will be used to automatically and accurately detect prostate cancer from biopsy images
- Largest multi-site deployment of AI in the UK

Men across England could benefit from faster diagnosis and quicker treatment of prostate cancer following the expansion of a pioneering trial of Artificial Intelligence to analyse biopsies.

Prostate cancer is the most common cancer among men. In the UK, nearly 100,000 men undergo a prostate biopsy every year – a number expected to double in the next ten years. More than 40,000 men are diagnosed with prostate cancer in England every year.

The technology, which has been developed by health tech company Ibex Medical Analytics, is designed to help reduce diagnostic errors and speed up diagnosis. Clinicians will compare the results of the AI analysis to current diagnosis methods, where biopsies are meticulously reviewed by a pathologist.

Secretary of State for Health and Social Care Sajid Javid said:

Artificial intelligence has the potential to transform our health and care system and studies like this are vital in understanding the impact AI can make.

Cancer diagnosis and treatment has remained a top priority throughout the pandemic and I am committed to busting the backlog in cancer care.

The earlier cancer is detected the quicker it is treated leading to better outcomes for patients, so this ground-breaking work has the potential to benefit thousands of people.

Funded as part of the £140 million NHSX AI in Health and Care awards, the study will enable leading researchers to evaluate the effectiveness of the AI solution Galen™ Prostate in detecting and grading cancer in prostate biopsies using samples from 600 men over 14 months.

The funding will be used for deploying and evaluating the AI technology, with the potential for it to be adopted more widely across the health service, cutting diagnosis times and freeing up valuable clinician time.

Minister for Innovation Lord Bethell said:

I am committed to ensuring the UK becomes a leader in health technology, including through pioneering AI studies like this so our NHS and patients can benefit from better diagnosis and treatment.

Initiatives like the “AI in Health and Care” awards are accelerating the testing and evaluation of the most promising AI technologies to improve our health and care system.

The next round of funding is open now, and I look forward to seeing more trailblazing organisations like Ibex Medical Analytics demonstrate how AI can be used to revolutionise healthcare.

Matthew Gould, NHSX CEO, said:

We are currently caught between having too few pathologists and rising demand for biopsies. This technology could help, and give thousands of men with prostate cancer faster, more accurate diagnoses.

It is a prime example of how AI can help clinicians improve care for patients as we recover from the pandemic.

Professor Hashim Ahmed, chair of urology at Imperial College London and principal investigator, said:

We strongly believe that AI has the potential to enhance both quality and efficiency, which is of paramount importance as we focus on putting every patient on the path to recovery.

Ibex’s technology has demonstrated its robustness on several studies abroad and so we look forward to seeing its performance and utility firsthand in the NHS.

Joseph Mossel, CEO and co-founder of Ibex Medical Analytics, said:

This funding acknowledges the potential of AI in pathology practice and the scientific evidence and clinical utility we have demonstrated to date.

The UK is clearly on track to become a world leader in implementing AI technologies in healthcare and we look forward to cooperating with our NHS partners and introducing our AI solution into multiple pathology labs in the UK.

Dr David Snead, pathologist at University Hospitals Coventry & Warwickshire and director of PathLAKE, an Innovate UK funded center of excellence for AI in digital pathology and radiology said:

We are excited to participate in this important validation of Ibex's platform. I believe that AI will forever change the pathology practice.

Pathologists will adapt and learn to utilize such tools in ways that provide better care to our patients. With initiatives such as the AI in Health and Care Award and PathLAKE, the UK is well positioned to lead this transformation.

New hospitals joining the study are:

- Imperial College Healthcare
- University College London
- University Hospital of Coventry & Warwickshire
- Chelsea and Westminster Hospital (both Chelsea and West Middlesex sites)
- University Hospital Southampton