Health Secretary announces £250 million investment in artificial intelligence

The AI Lab will bring together the industry's best academics, specialists and technology companies to work on some of the biggest challenges in health and care, including earlier cancer detection, new dementia treatments and more personalised care.

AI is already being developed in some hospitals, successfully predicting cancer survival rates and cutting the number of missed appointments.

The AI Lab's work could:

- improve cancer screening by speeding up the results of tests, including mammograms, brain scans, eye scans and heart monitoring
- use predictive models to better estimate future needs of beds, drugs, devices or surgeries
- identify which patients could be more easily treated in the community, reducing the pressure on the NHS and helping patients receive treatment closer to home
- identify patients most at risk of diseases such as heart disease or dementia, allowing for earlier diagnosis and cheaper, more focused, personalised prevention
- build systems to detect people at risk of post-operative complications, infections or requiring follow-up from clinicians, improving patient safety and reducing readmission rates
- upskill the NHS workforce so they can use AI systems for day-to-day tasks
- inspect algorithms already used by the NHS to increase the standards of AI safety, making systems fairer, more robust and ensuring patient confidentiality is protected
- automate routine admin tasks to free up clinicians so more time can be spent with patients

The lab will sit within NHSX, the new organisation that will oversee the digitisation of the health and care system, in partnership with the Accelerated Access Collaborative.

The investment will support the ambitions in the NHS Long Term Plan, which includes pledges to use AI to help clinicians eliminate variations in care.

The Prime Minister said:

The NHS is revered for the world-class care it provides every day — a treasured institution that showcases the very best of Britain.

But it is also leading the way in harnessing new technology to

treat and prevent, from earlier cancer detection to spotting the deadly signs of dementia.

Today's funding is not just about the future of care though. It will also boost the frontline by automating admin tasks and freeing up staff to care for patients.

My task is to ensure the NHS has the funding it needs to make a real difference to the lives of staff and patients. Transforming care through artificial intelligence is a perfect illustration of that.

Health Secretary Matt Hancock said:

We are on the cusp of a huge health tech revolution that could transform patient experience by making the NHS a truly predictive, preventive and personalised health and care service.

I am determined to bring the benefits of technology to patients and staff, so the impact of our NHS Long Term Plan and this immediate, multimillion pound cash injection are felt by all. It's part of our mission to make the NHS the best it can be.

The experts tell us that because of our NHS and our tech talent, the UK could be the world leader in these advances in healthcare, so I'm determined to give the NHS the chance to be the world leader in saving lives through artificial intelligence and genomics.

Simon Stevens, NHS England Chief Executive, said:

Carefully targeted AI is now ready for practical application in health services, and the investment announced today is another step in the right direction to help the NHS become a world leader in using these important technologies.

In the first instance it should help personalise NHS screening and treatments for cancer, eye disease and a range of other conditions, as well as freeing up staff time, and our new NHS AI Lab will ensure the benefits of NHS data and innovation are fully harnessed for patients in this country.