# UK government backs AI-powered blood test trial to detect bowel cancer earlier



The UK government has unveiled support for a pioneering trial of advanced technology aimed at diagnosing bowel cancer earlier, faster, and more cost-effectively. Announced on Wednesday 23rd April, the initiative seeks to reduce the reliance on invasive procedures such as colonoscopies and biopsies, ultimately aiming to save critical time and resources for the NHS.

The state-of-the-art technology, known as the miONCO-Dx blood test, has been developed domestically by Xgenera in partnership with the University of Southampton. This blood test utilises artificial intelligence (AI) to analyse microRNA markers in blood samples, determining not only the presence of cancer but also pinpointing its location within the body. Early trials involving data from over 20,000 patients have demonstrated that miONCO-Dx can detect 12 of the most lethal and common cancers, including bowel cancer, with accuracy exceeding 99%. Such innovation marks the UK as a world leader in novel cancer diagnostics.

From July 2024 to February 2025, there has been a positive trend with 76.6% of patients receiving a cancer diagnosis or an all-clear within 28 days, a four percentage point improvement compared to the previous year. Early diagnosis of bowel cancer is critical, as survival rates are dramatically higher when the disease is detected at an early stage. Specifically, nine out of ten patients survive bowel cancer when diagnosed at stage 1, whereas only one in ten survive when diagnosed at stage 4.

A new clinical trial involving 8,000 patients will now assess the miONCO-Dx test to establish its suitability for NHS use on a wider scale. The government has allocated £2.4 million, in collaboration with the National Institute for Health and Care Research (NIHR), to advance this development. The trial aims to confirm the test’s effectiveness and scalability within the healthcare system.

Health and Social Care Secretary Wes Streeting highlighted the pressing need for advancement in cancer care: “From my own experience, I know the devastating toll cancer can take on patients and families, and how many of them have been faced with long waiting lists to get the diagnosis and treatment they deserve. We know that the key to surviving cancer is catching it as early as possible, so this government is taking the urgent action needed…”

He added that the government’s Plan for Change encompasses not only technological development but also the establishment of dedicated hubs like the recently named BowelBabe Laboratory at Cancer Research UK, honouring campaigner Dame Deborah James. This laboratory brings together leading scientists to conduct cutting-edge bowel cancer research and develop new treatments.

Chief Scientific Adviser at the Department of Health and Social Care and NIHR CEO, Professor Lucy Chappell, noted: “Innovations such as the miONCO-Dx blood test offer an exciting new era in cancer detection with the potential for quicker, easier and more effective ways to detect cancers before they become more difficult to treat.”

Cancer Research UK’s chief executive, Michelle Mitchell, welcomed the Health Secretary’s visit to the BowelBabe Laboratory, stating: “Bowel cancer is the second biggest cause of cancer deaths in the UK. I’m delighted to welcome the Health Secretary, Wes Streeting, to the BowelBabe Laboratory and show him the cutting-edge research being carried out in the name of the inspirational Dame Deborah James... This NIHR trial shows the importance of research and the impact new technology and developments could have.”

NHS national medical director Professor Sir Stephen Powis emphasised the potential impact on patient care and resource savings, saying: “This blood test has the potential to help us detect bowel cancer earlier and reduce the need for invasive tests, and the next step in this trial will now be vital in gathering further evidence on its effectiveness and how it could work in practice.”

Science and Technology Secretary Peter Kyle echoed the government’s commitment: “Bowel cancer has brought heartbreak to too many families across the country. But working in partnership with the NHS, researchers, and business, we can harness AI to overhaul how we detect and treat this horrendous disease.”

This announcement forms part of the government’s broader National Cancer Plan, aiming to enhance cancer diagnosis, research, prevention, and treatment. The Plan for Change also addresses wider NHS improvements, including reductions in waiting lists which have fallen by over 200,000 patients since July last year.

Overall, the development and forthcoming trial of the miONCO-Dx blood test signal a significant step in employing innovative technologies to improve health outcomes and operational efficiency in the detection and management of bowel cancer in the UK.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.the-independent.com/news/health/cancer-blood-test-deborah-james-bowelbabe-lab-nhs-b2737801.html> - Corroborates the miONCO-Dx blood test trial details, partnership with the University of Southampton, and the £2.4 million government funding for 8,000-patient trials through NIHR.
2. <https://www.openaccessgovernment.org/nhs-to-adopt-pioneering-technology-for-improved-bowel-cancer-diagnosis/191863/> - Confirms the £2.4 million grant and NIHR collaboration for developing the AI-driven miONCO-Dx blood test aimed at improving early bowel cancer detection.
3. <https://www.gbnews.com/health/cancer-blood-test-trial-nhs> - Validates the test's capability to detect 12 cancers with over 99% accuracy and the planned NHS trial to assess its clinical application.
4. [https://www.wired-gov.net/wg/news.nsf/articles/Breakthrough+in+bowel+cancer+research+will+speed+up+diagnosis+23042025111000?open](https://www.wired-gov.net/wg/news.nsf/articles/Breakthrough%2Bin%2Bbowel%2Bcancer%2Bresearch%2Bwill%2Bspeed%2Bup%2Bdiagnosis%2B23042025111000?open) - Supports claims about the test's potential to reduce invasive procedures and expedite diagnoses, citing input from NHS national medical director Professor Sir Stephen Powis.
5. <https://www.the-independent.com/news/health/cancer-blood-test-deborah-james-bowelbabe-lab-nhs-b2737801.html> - Details the BowelBabe Laboratory's role in cutting-edge research and its naming in honor of Dame Deborah James, aligning with government commitments to innovation hubs.
6. <https://www.the-independent.com/news/health/cancer-blood-test-deborah-james-bowelbabe-lab-nhs-b2737801.html> - References the involvement of Cancer Research UK's Michelle Mitchell and Professor Lucy Chappell's comments about the test's revolutionary potential in cancer detection.
7. <https://news.google.com/rss/articles/CBMixwFBVV95cUxOQk84Tm9HeUZ3a3BIb1RqZm5LTjRiSnFVbEVCV0FzN1V6ZnI1MDdITnVRMEJFU1VFODdjeG04YTBfQ0l2ZENYUmxsNThJYVBRLTRheWx6T3E1V2R0SGcxQnZVTHIxaVUtbmhja2VGZzRONHNFbW1RWEtTRVgzNXZUOUhwbE9GblBiMERNbXYzNVNTQWg5LTJsNEJKYWxlVDlmNFZhMVN0dUFydUdmVlJ2RzFGeWFTR3FYeU1DODZSeVdycmF3VnY4?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data