

World-first pancreatic cancer test a life-saver

EXCLUSIVE

NATASHA ROBINSON
HEALTH EDITOR

The world's first early-detection blood test for pancreatic cancer is set to be launched in Australia, and is predicted to lift survival rates for the deadly disease.

The test detects the presence of cancer-driving proteins in the bloodstream triggered by DNA changes, which can be identified years before pancreatic cancer shows symptoms. Detection at

such an early stage in cancer development enables the disease to be treated successfully, which is impossible now for most people diagnosed with pancreatic cancer.

Australia's BCAL Diagnostics partnered with US precision diagnostics firm ClearNote to develop the test, to be available from mid-January to patients in Australia on the private market. A similar test is in the works for ovarian cancer.

Advocacy groups are hailing the early-detection blood test as a significant step when five-year survival rates for the disease hover at 13 per cent – the lowest survival

rate for any cancer. Eighty-five per cent of pancreatic cancer diagnoses are made at a late stage, when it cannot be treated successfully.

"This is really exciting for pancreatic cancer to be able to have an early-detection blood test," said advocacy charity Pankind's chief executive, Michelle Stewart. "If people are detected earlier, their survival prospects are much better. They have the ability to have surgery, and potentially treatments may work better as well, so earlier detection for pancreatic cancer could shift survival rates significantly in the next few years."

The Avantect Pancreatic Test works by detecting changes in circulating DNA methylation patterns and the presence of messenger RNA, which triggers cells to produce certain cancer-driving proteins that circulate in the blood. It detects epigenetic markers rather than being a genetic test, and has been made possible thanks to the growing body of science generated by genomics, which has identified a host of gene variants commonly seen in pancreatic cancer and the protein markers associated with these mutations.

"Even what's considered a stage zero cancer can potentially be seen through this test," BCAL Diagnostics chief commercial officer Chris Baldwin said. "Only in the last 10 years, really, have we had the ability to probe these circulating, cell-free DNA in a way that allows us to start making these determinations. Whole genome sequencing has been the driver for all of this. This is new, innovative technology which is going to give clinicians improved diagnostic tools to detect pancreatic cancer earlier and improve outcomes and survivability rates."

The Avantect test is being launched this month and will cost \$1495, although the cost is expected to come down substantially as the technology advances. The test will initially be available through the Sydney Breast Clinic, with further distribution centres to be made available soon after.

The test has been validated in peer-reviewed papers that have presented accumulating data via clinical trials of its ability to detect pancreatic cancer before symptoms become critical. The technology underpinning the Avantect test is being evaluated in the

15,000-participant SAFE-D Trial in the UK, targeting new-onset type 2 diabetes patients, and the US Vanguard Trial, one of the world's largest federally supported multi-cancer detection studies.

Latest clinical data shows the test achieves 82.6 per cent sensitivity at 97.5 per cent specificity for stages 1 and 2 pancreatic cancer, the window where early surgical intervention can dramatically improve survival outcomes. This means it effectively detects 82.6 per cent of cases of stages 1 and 2 pancreatic cancer and has a false-positive rate of 2.5 per cent.

The test is initially being targeted at people at high risk of pancreatic cancer, such as those with a strong family history, those with type 2 diabetes, or those with disease or genetic variants such as BRCA mutations. More than 120,000 Australians are estimated to carry a genetic predisposition to pancreatic cancer. Early pancreatic cancer either displays no symptoms or presents with vague complaints such as abdominal discomfort, gastrointestinal changes or metabolic disturbances, which can mimic benign conditions, making it difficult to diagnose.