

New test launched for men with metastatic prostate cancer

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Routine diagnostic analyses of mutations in cell-free DNA in patients with metastatic prostate cancer are now possible for the first time in Sweden. The test has been developed by researchers at Karolinska

Institutet, and Karolinska University Hospital is now offering the analysis to hospitals around the Nordic region, giving more patients with certain gene mutations access to the cancer treatment they need.

"It's great news that this test is now being implemented in clinical routine," says Johan Lindberg, senior researcher at the Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, and at SciLifeLab, who also works part-time at Molecular Cancer Diagnostics at Karolinska University Hospital in Solna. "It gives more patients with [metastatic prostate cancer](#) access to individualized treatment. The test has been optimized to detect mutations in very small amounts of DNA, which has previously been a problem for this patient group."

The routine diagnostic test has been developed under the leadership of Johan Lindberg in collaboration with Hannes Olauson, pathologist at Karolinska University Hospital and research affiliate at the Department of Clinical Science, Intervention and Technology, and Felix Haglund, pathologist at Karolinska University Hospital and senior researcher at the Department of Oncology-Pathology.

The method is based on previously published studies in among others [Genome Medicine](#) and [Clinical Cancer Research](#).

Precision medical analysis

Since May 2022, it has been possible to treat men suffering from metastatic castration-resistant prostate cancer with a drug called Olaparib, provided that his [cancer cells](#) carry a mutation in one of the genes BRCA1 or BRCA2. The new analysis can identify these mutations through the sequencing of circulating DNA from moribund tumor cells, which gives a snapshot of the mutations. Otherwise, analyses have been done on [tissue samples](#) that could have been taken a long time ago.

To make the treatment available for more patients, Karolinska University Hospital is now offering the analysis, which has been developed under the multinational ProBio study, to hospitals throughout the Nordic region.

Close collaboration between university and hospital

Mikael Björnstedt, head of clinical pathology and cancer diagnostics at Karolinska University Hospital, points out that analyses of cell-free DNA are expected to increase in the coming years, which will require closer collaboration between researchers at Karolinska Institutet and [healthcare professionals](#) at Karolinska University Hospital.

"The development of precision-medical analyses is advancing rapidly, and an active skills and knowledge exchange between university and hospital is needed if we're to keep up," says Dr. Björnstedt.

Provided by Karolinska Institutet

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