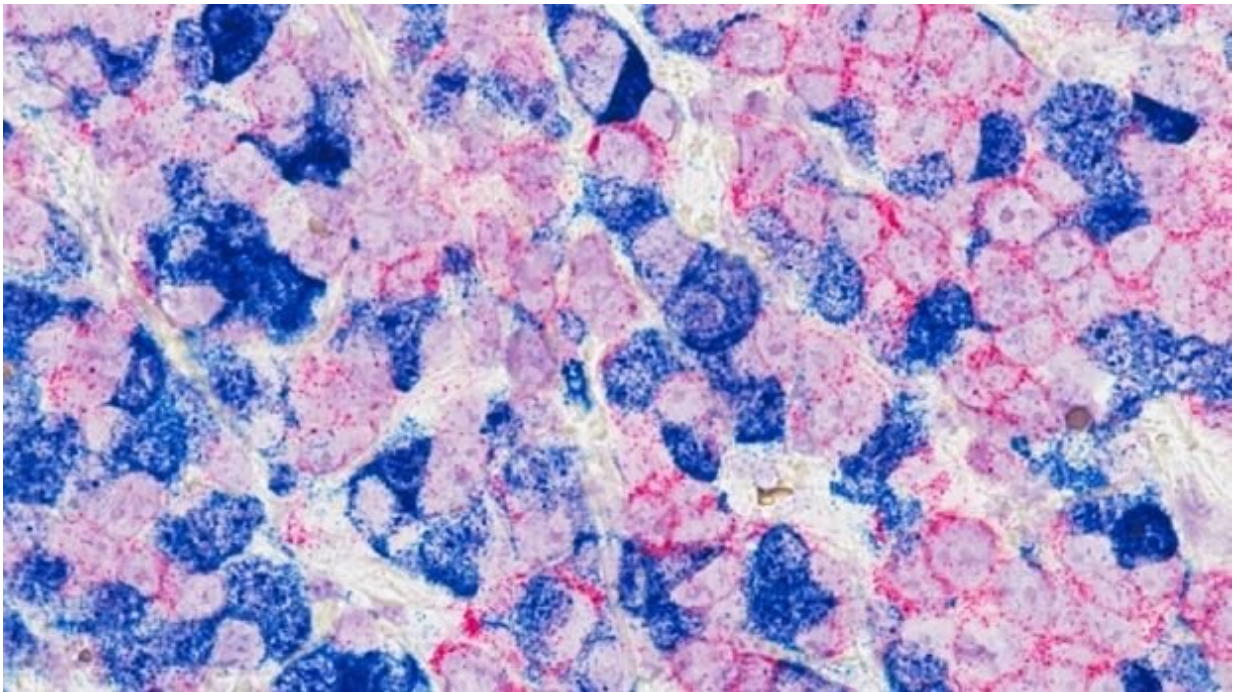


# Olaparib approved for 800 prostate and breast cancer patients in England

April 11 2023, by Tim Gunn

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Breast cancer cells. Credit: NCI

Olaparib (Lynparza), a targeted cancer drug, has been approved for hundreds of patients with certain breast cancers and prostate cancers in England.

The decision came after NHS England negotiated a discount for the drug from its manufacturer, AstraZeneca.

Previously, the National Institute for Health and Care Excellence (NICE), had not recommended olaparib as a treatment for certain types of breast or [prostate cancer](#) because of concerns about its cost-effectiveness.

Now, though, the drug will be made available through the NHS for more patients with inherited mutations in DNA repair genes called BRCA genes. These faults raise the risk of certain cancers, but they can also be targeted with olaparib.

NICE estimates that 300 adults with breast cancer will now be eligible for treatment with the drug, as will around 500 more people with [advanced prostate cancer](#).

"Cancer Research UK-funded scientists played a leading role in the development and testing of olaparib, so this news is really exciting to see," said Martin Ledwick, our chief information nurse.

"The evidence shows that these drugs mean better chances of a good outcome for patients with early-stage breast cancer and advanced prostate cancer related to BRCA gene mutations.

"We hope that today's news will give patients facing these forms of cancer better options for treatment, to give them more time to make memories with the people they love."

## **Who is olaparib now recommended for?**

NICE had already recommended olaparib for some BRCA-linked ovarian cancers that have come back or continued growing after treatment. It is now being made available on the NHS for two extra patient groups with faults in BRCA genes:

- HER2-negative breast cancer patients with high-risk, early-stage disease, after chemotherapy and surgery. This group includes people with hormone receptor-positive and triple-negative breast cancer.
- Prostate cancer patients whose disease has spread through their body (metastasized), and either returned or grown bigger after being treated with hormone therapy.

Clinical trials have shown that olaparib can extend advanced prostate cancer patients' lives by an average of six months.

When used after surgery and chemotherapy, the drug can also reduce the risk of BRCA-mutant, HER2-negative early [breast](#) cancer returning or getting bigger. The NICE committee made their recommendation after looking at evidence from the OlympiA trial, which showed that olaparib reduces the risk of [breast cancer](#) returning within four years by nearly a third.

NICE decisions are usually adopted in Wales and Northern Ireland as well as England, so the decision is likely to affect patients in all three nations. Scotland has a separate process for reviewing drugs. The Scottish Medicine Consortium recommended olaparib for a type of advanced prostate cancer in 2021.

## How does olaparib work?

Olaparib, which is taken as a pill, is a type of targeted cancer drug called a PARP inhibitor. PARP is a protein that helps damaged cells to repair themselves. Olaparib stops it working.

That means it can be an effective cancer treatment for people who already have faults in genes linked to DNA repair, like BRCA mutations. These affect approximately 1 in 400 people in the U.K.

When BRCA genes are mutated, cancer cells are more reliant on PARP to keep their DNA healthy. So, when olaparib stops PARP from repairing DNA damage, they're more likely to die.

## How were PARP inhibitors discovered?

With Cancer Research UK funding and support, Cambridge University Professor Steve Jackson and his research team developed olaparib in the 1990s and early 2000s.

Around the same time, our scientists played an instrumental role in finding the BRCA1 and BRCA2 genes. This helped make PARP inhibitors, which target BRCA mutations, such a breakthrough.

And while Jackson and his team were working on olaparib, we also helped support the researchers at Newcastle University who discovered and developed a similar PARP inhibitor called rucaparib. One of them, Professor Ruth Plummer, who we still fund, wrote the world's first prescription for a PARP inhibitor in 2003.

Today, these drugs are helping more and more patients. And our researchers are still finding new ways to use them, even for cancers that aren't related to BRCA mutations. A team led by Professor Anthony Chalmers at the University of Glasgow is using [olaparib](#) in combination with other drugs to improve how we treat brain tumors.

Provided by Cancer Research UK

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