



The Basics of PARP Inhibitors

What is PARP?

Poly (ADP-ribose) polymerase (PARP) is a family of proteins that help repair broken or damaged DNA in cells. Cancer cells also use PARP to help fix broken DNA. DNA damage may be caused by many things, including exposure to UV light, radiation, certain anticancer drugs, or other substances in the environment.

What are PARP inhibitors?

PARP inhibitors are a type of targeted therapy. PARP inhibitors can help prevent cancer cells from repairing their damaged DNA, which can cause cancer cells to die. This may slow the return or the progression of cancer.

Which PARP inhibitors are used for women with ovarian cancer?

There are three PARP inhibitors that are currently approved for use in patients with ovarian cancer, primary peritoneal and fallopian tube cancer:

- **Lynparza** (also known as olaparib)
- **Rubraca** (also known as rucaparib)
- **Zejula** (also known as niraparib)

Which PARP inhibitors are approved for maintenance therapy?

Lynparza or Zejula may be used as maintenance therapy for women with ovarian cancer, regardless of mutations, who have received 2 or more lines of chemotherapy and who had either a complete or partial response to the most recent line of platinum chemotherapy.

Which PARP inhibitors are approved for treatment of advanced ovarian cancer?

Lynparza is a PARP inhibitor approved by the FDA to treat ovarian, fallopian tube, and primary peritoneal cancer in women with a germline mutation in BRCA, as detected by an FDA approved test and who have received three or more previous lines of chemotherapy.

Rubraca is a PARP inhibitor that was approved by the FDA to treat women with advanced ovarian, fallopian tube, and primary peritoneal cancer who have had two or more prior treatments and who have germline mutations in BRCA or whose tumors have BRCA mutations as detected by the Foundation Focus CDxBRCA companion diagnostic test.

Glossary of Common Terms

GERMLINE MUTATION - A gene change in a body's reproductive cell (egg or sperm) that becomes incorporated into the DNA of every cell in the body of the offspring. Germline mutations are passed on from parents to offspring. Also called hereditary mutation.

SOMATIC MUTATION - An alteration in DNA that occurs after conception. Somatic mutations can occur in any of the cells of the body except the germ cells (sperm and egg) and therefore are not passed on to children. Tumors sometimes develop somatic mutations.

MAINTENANCE THERAPY- A type of treatment that is given after standard treatment has been completed to try to keep the cancer from returning or growing. It may continue for a long time.

PROGRESSION FREE SURVIVAL (PFS) - The length of time during and after treatment that you live with cancer but it does not get worse.

COMPANION DIAGNOSTIC - A companion diagnostic is a diagnostic test given to determine if a person is likely to respond to a particular drug. The FDA sometimes requires a companion diagnostic in conjunction with a treatment to exclude patients who may not benefit.

PLATINUM THERAPY - A type of chemotherapy used to treat cancer that contains the metal platinum such as cisplatin and carboplatin.

