FDA News Release

FDA approves Lynparza to treat advanced ovarian cancer

First LDT companion diagnostic test also approved to identify appropriate patients

For Immediate Release

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Release

The U.S. Food and Drug Administration today granted accelerated approval to Lynparza (olaparib), a new drug treatment for women with advanced ovarian cancer associated with defective BRCA genes, as detected by an FDA-approved test.

Ovarian cancer forms in the ovary, one of a pair of female reproductive glands where ova, or eggs, are formed. The National Cancer Institute estimates that 21,980 American women will be diagnosed with and 14,270 will die from ovarian cancer in 2014.
Lynparza is a poly ADP-ribose polymerase (PARP) inhibitor that blocks enzymes involved in repairing damaged DNA. It is intended for women with heavily pretreated ovarian cancer that is associated with defective BRCA genes.

“Today’s approval constitutes the first of a new class of drugs for treating ovarian cancer,” said Richard Pazdur, MD, director of the Office of Hematology and Oncology Products in the FDA’s Center for Drug Evaluation and Research. “Lynparza is approved for patients with specific abnormalities in the BRCA gene and is an example of how a greater understanding of the underlying mechanisms of disease can lead to targeted, more personalized treatment.

The FDA approved Lynparza with a genetic test called BRACAnalysis CDx, a companion diagnostic that will detect the presence of mutations in the BRCA genes (gBRCAm) in blood samples from patients with ovarian cancer. The BRCA genes are involved with repairing damaged DNA and normally work to suppress tumor growth. Women with mutations resulting in defective BRCA genes are more likely to get ovarian cancer, and it is estimated that 10 to 15 percent of all ovarian cancer is associated with these hereditary BRCA mutations.

The FDA evaluated the BRACAnalysis CDx’s safety and efficacy under the agency’s premarket approval pathway used for high-risk medical devices. Until now, the manufacturer, a clinical laboratory, had been marketing this test, although not specifically for use as a companion diagnostic, without FDA approval as a laboratory developed test (LDT), which is a test that is designed, manufactured and used in a single laboratory. The new test is approved as a companion diagnostic, specifically to identify patients with advanced ovarian cancer who may be candidates for treatment with Lynparza.

“The approval of safe and effective companion diagnostic tests and drugs continue to be important developments in oncology,” said Alberto Gutierrez, Ph.D., director of the Office of In Vitro Diagnostics and Radiological Health in the FDA’s Center for Devices and Radiological Health. “We are very excited that the BRACAnalysis CDx is the FDA’s first approval of an LDT under a premarket approval application and is the first approval of an LDT companion diagnostic. The use of companion diagnostics helps bring to market safe and effective treatments specific to a patient’s needs.”

The FDA’s approval of the BRACAnalysis CDx is based on data from the clinical study used to support approval of Lynparza. Blood samples from clinical trial participants were tested to validate the test’s use for detecting BRCA mutations in this population.
Lynparza’s efficacy was examined in a study where 137 participants with gBRCAm-associated ovarian cancer received the drug. The study was designed to measure objective response rate (ORR), or the percentage of participants who experienced partial shrinkage or complete disappearance of the tumor. Results showed 34 percent of participants experienced ORR for an average of 7.9 months.

Common side effects of Lynparza included nausea, fatigue, vomiting, diarrhea, distorted taste (dysgeusia), indigestion (dyspepsia), headache, decreased appetite, common cold-like symptoms (nasopharyngitis), cough, joint paint (arthralgia), musculoskeletal pain, muscle pain (myalgia), back pain, rash (dermatitis) and abdominal pain. Serious side effects included the development of myelodysplastic syndrome, a condition where the bone marrow is unable to produce enough functioning blood cells; acute myeloid leukemia, a bone marrow cancer; and lung inflammation.

The most common laboratory abnormalities were increased creatinine, increased average volume of red blood cells (mean corpuscular volume elevation), decreased red blood cell count (hemoglobin), decreased white blood cell count (lymphocytes and neutrophils) and decreased platelet levels.

In June, Lynparza was reviewed by the FDA’s Oncologic Drugs Advisory Committee for potential use as maintenance therapy (treatment given to keep cancer from returning). The committee advised the agency in a vote of 11 to 2 that the data did not support Lynparza’s accelerated approval for this use. After the meeting, the company submitted additional information supporting Lynparza’s use for a different use: in patients with gBRCAm-associated ovarian cancer who have received three or more chemotherapy treatments.

The FDA is approving Lynparza under the agency’s accelerated approval program, which allows approval of a drug to treat a serious or life-threatening disease based on clinical data showing the drug has an effect on a surrogate endpoint reasonably likely to predict clinical benefit to patients. This program provides earlier patient access to promising new drugs while the company conducts confirmatory clinical trials. Lynparza’s application was reviewed under the FDA’s priority review program, which provides for an expedited review of drugs that are intended to treat a serious disease or condition and, if approved, would offer significant improvement compared to marketed products.
BRACAnalysis CDx’s application was reviewed under the FDA’s priority review program for devices, which provides for priority review of devices that meet certain criteria, including that the devices are intended to treat or diagnose a life-threatening or irreversibly debilitating disease or condition and, if approved, would offer significant, clinically meaningful advantages compared to marketed products.

Lynparza is marketed by AstraZeneca Pharmaceuticals, based in Wilmington, Delaware. BRACAnalysis CDx is manufactured by and performed at Salt Lake City, Utah-based Myriad Genetic Laboratories, Inc.

The FDA, an agency within the U.S. Department of Health and Human Services, promotes and protects the public health by, among other things, assuring the safety, effectiveness and security of human and veterinary drugs, vaccines and other biological products for human use, and medical devices. The agency also is responsible for the safety and security of our nation’s food supply, cosmetics, dietary supplements, products that give off electronic radiation, and for regulating tobacco products.

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