

Novartis Kisqali® Phase III NATALEE trial meets primary endpoint at interim analysis demonstrating clinically meaningful benefit in broad population of patients with early breast cancer

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Kisqali plus endocrine therapy (ET) significantly reduced the risk of disease recurrence compared to standard ET alone in the adjuvant setting¹

NATALEE is the first and only positive Phase III study of a CDK4/6 inhibitor demonstrating consistent benefit in a broad population of patients with stage II and III HR+/HER2- early breast cancer (EBC) at risk of recurrence, including those with no nodal involvement

Approximately 30-60% of people with HR+/HER2- stage II and III EBC treated with ET only remain at risk of breast cancer recurrence²

NATALEE results will be presented at an upcoming medical meeting and submitted to regulatory authorities worldwide

EAST HANOVER, N.J., March 27, 2023 -- Novartis today announced positive topline results from an interim analysis of NATALEE, a Phase III trial evaluating Kisqali® (ribociclib) plus endocrine therapy (ET) in a broad population of patients with hormone receptor-positive/human epidermal growth factor receptor 2-negative (HR+/HER2-) early breast cancer (EBC) at risk of recurrence¹. The Independent Data Monitoring Committee recommended stopping the trial early as the primary endpoint of invasive disease-free survival (iDFS) has been met. Kisqali plus ET significantly reduced the risk of disease recurrence, compared to standard adjuvant ET alone, with consistent benefit in patients with stage II and stage III EBC regardless of nodal involvement¹.

"While most patients are diagnosed and treated early with the aim to cure breast cancer, the risk of cancer returning, often as metastatic disease, peaks within three years after diagnosis, but never goes away completely," said Dennis J. Slamon, MD, Director of Clinical/Translational Research, University of California, Los Angeles Jonsson Comprehensive Cancer Center and Chairman and Executive Director of Translational Research In Oncology (TRIO) and NATALEE trial lead investigator. "There is a critical need for new, well-tolerated options that keep patients cancer-free without disrupting quality of life. The NATALEE trial, where ribociclib was given for three years plus ET, was designed with these unmet needs in mind, and it is extremely encouraging that this study met its primary endpoint."

Per the NATALEE study protocol, patient follow-up will continue to evaluate long-term outcomes, including overall survival¹.

"The positive topline results from NATALEE represent a major milestone in our ambition to expand the benefits of Kisqali to patients with earlier stages of breast cancer, building on the heritage of this effective treatment in HR+/HER2- metastatic breast cancer," said Shreeram Aradhye, M.D., President, Global Drug Development and Chief Medical Officer, Novartis. "These data have the potential to be paradigm-shifting for patients at risk of recurrence, including those with no nodal involvement, who have limited well-tolerated options to prevent recurrence. Our teams are working on submissions to health authorities around the world with the hope to bring Kisqali to many more patients diagnosed with breast cancer."

These findings build on the legacy of Kisqali in metastatic breast cancer (MBC), where it has consistently demonstrated overall survival benefit while preserving or improving quality of life across three Phase III trials³⁻¹⁴. Updates to the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for breast cancer, released in January 2023, recommend ribociclib (Kisqali) as the only Category 1 preferred CDK4/6 inhibitor for first-line treatment of patients with HR+/HER2- MBC when combined with an aromatase inhibitor (AI)¹⁵.

About NATALEE

NATALEE is a global Phase III multi-center, randomized, open-label trial to evaluate the efficacy and safety of Kisqali with ET as adjuvant treatment versus ET alone in patients with HR+/HER2- EBC, being conducted in collaboration with Translational Research In Oncology (TRIO)¹. The primary endpoint of NATALEE is iDFS, as defined by the Standardized Definitions for Efficacy End Points

(STEEP) criteria; secondary endpoints include safety, quality of life, and overall survival, among others. iDFS is a composite endpoint in EBC adjuvant trials, which incorporates locoregional relapse, ipsilateral and contralateral invasive breast cancer, distant recurrence, and types of new cancer events or death from any cause. Approximately 5,100 adult patients with HR+/HER2- EBC across 20 countries were randomized in the trial, including patients with tumor stages IIA (select patients), IIB or III, regardless of nodal involvement. NATALEE explored a lower starting dose (400 mg) of Kisqali than the dose approved for treatment in MBC (600 mg) with the goal to minimize disruptions to patient quality of life without compromising efficacy¹.

About Early Breast Cancer

More than 90% of patients diagnosed with breast cancer have EBC^{2,16}. Approximately 30-60% of people with HR+/HER2- stage II and III EBC treated with ET only remain at risk of breast cancer recurrence². The risk of recurrence peaks within the first three years after initial diagnosis and continues over decades². For many of these patients, there are currently no targeted therapeutic options outside of the standard chemotherapy and ET¹⁷.

About Kisqali® (ribociclib)

Kisqali has consistently demonstrated overall survival benefit while preserving or improving quality of life across three Phase III trials³⁻¹⁴. Updates to the NCCN Guidelines® for breast cancer, released in January 2023, recommend ribociclib (Kisqali) as the only Category 1 preferred CDK4/6 inhibitor for first-line treatment of patients with HR+/HER2- MBC when combined with an AI¹⁵. Additionally, Kisqali has the highest rating of any CDK4/6 inhibitor on the ESMO Magnitude of Clinical Benefit Scale, achieving a score of five out of five for first-line premenopausal patients with HR+/HER2- advanced breast cancer¹⁸. Further, Kisqali in combination with either letrozole or fulvestrant has uniquely, among other CDK4/6 inhibitors, received a score of four out of five for postmenopausal patients with HR+/HER2- advanced breast cancer treated in the first line¹⁹.

Kisqali has been approved in 99 countries worldwide, including by the United States Food and Drug Administration (FDA) and the European Commission. In the U.S., Kisqali is approved for the treatment of adult patients with HR+/HER2- advanced or metastatic breast cancer in combination with an AI as initial ET or fulvestrant as initial ET or following disease progression on ET in postmenopausal women or in men. In the EU, Kisqali is approved for the treatment of women with HR+/HER2- advanced or metastatic breast cancer in combination with either an AI or fulvestrant as initial ET or following disease progression. In pre- or perimenopausal women, the ET should be combined with a luteinizing hormone-releasing hormone agonist¹⁴.

Novartis is committed to continuing to study Kisqali in breast cancer. Novartis is collaborating with SOLTI, which is leading the HARMONIA study to test whether Kisqali changes tumor biology to enable a better response to ET compared to Ibrance®* (palbociclib) for patients with metastatic HR+/HER2-, HER2-enriched subtype²⁰, and with the Akershus University Hospital in Norway on the NEOLETRIB trial, a neoadjuvant Phase II trial studying the effects of Kisqali in HR+/HER2- EBC to discover the potentially unique underlying mechanism of action²¹. Novartis also plans to build on the findings from NATALEE with ADJUVANT WIDER, an open-label Phase IIIb trial evaluating Kisqali plus ET in a population of HR+/HER2- patients with stage II and III EBC that is closer to a real-world population.

Kisqali was developed by the Novartis Institutes for BioMedical Research (NIBR) under a research collaboration with Astex Pharmaceuticals.

Please see full Prescribing Information for Kisqali, available at www.Kisqali.com.

Indications

KISQALI® (ribociclib) is a prescription medicine used to treat adults with hormone receptor-positive, human epidermal growth factor receptor 2-negative (HR+/HER2-) breast cancer that has gotten worse or has spread to other parts of the body (metastatic), in combination with:

- an aromatase inhibitor as the first endocrine-based therapy; or
- fulvestrant as the first endocrine-based therapy or following disease progression on endocrine therapy in postmenopausal women or in men.

It is not known if KISQALI is safe and effective in children.

Important Safety Information

What is the most important information I should know about KISQALI?

KISQALI may cause serious side effects, including:

Lung problems. KISQALI may cause severe or life-threatening inflammation of the lungs during treatment that may lead to death. Tell your health care provider right away if you have any new or worsening symptoms, including:

- trouble breathing or shortness of breath
- cough with or without mucus
- chest pain

Severe skin reactions. Tell your health care provider or get medical help right away if you get severe rash or rash that keeps getting worse; reddened skin; flu-like symptoms; skin pain/burning; blistering of the lips, eyes, or mouth; or blisters on the skin or skin peeling, with or without fever.

Heart rhythm problems (QT prolongation). KISQALI can cause a heart problem known as QT prolongation. This condition can cause an abnormal heartbeat and may lead to death. Your health care provider should check your heart and do blood tests before and during treatment with KISQALI. Tell your health care provider right away if you have a change in your heartbeat (a fast or irregular heartbeat), or if you feel dizzy or faint.

Liver problems (hepatobiliary toxicity). KISQALI can cause serious liver problems. Your health care provider should do blood tests to check your liver before and during treatment with KISQALI. Tell your health care provider right away if you get any of the following signs and symptoms of liver problems:

- yellowing of your skin or the whites of your eyes (jaundice)
- dark or brown (tea-colored) urine
- feeling very tired
- loss of appetite
- pain on the right side of your stomach area (abdomen)
- bleeding or bruising more easily than normal

Low white blood cell counts (neutropenia). Low white blood cell counts are very common during treatment with KISQALI and may result in infections that may be severe. Your health care provider should check your white blood cell counts before and during treatment with KISQALI. Tell your health care provider right away if you have signs and symptoms of low white blood cell counts or infections such as fever and chills.

Your health care provider may tell you to decrease your dose, temporarily stop, or completely stop taking KISQALI if you develop certain serious side effects during treatment with KISQALI.

What should I tell my health care provider before taking KISQALI?

Before you take KISQALI, tell your health care provider if you:

- have any heart problems, including heart failure, irregular heartbeats, and QT prolongation
- have ever had a heart attack
- have a slow heartbeat (bradycardia)
- have problems with the amount of potassium, calcium, phosphorus, or magnesium in your blood
- have fever, chills, or any other signs or symptoms of infection
- have liver problems
- have any other medical conditions
- are pregnant, or plan to become pregnant. KISQALI can harm your unborn baby
 - If you are able to become pregnant, your health care provider should do a pregnancy test before you start treatment with KISQALI.
 - Females who are able to become pregnant and who take KISQALI should use effective birth control during treatment and for at least 3 weeks after the last dose of KISQALI.
 - Talk to your health care provider about birth control methods that may be right for you during this time.
 - If you become pregnant or think you are pregnant, tell your health care provider right away.
- are breastfeeding or plan to breastfeed. It is not known if KISQALI passes into your breast milk. Do not breastfeed during treatment with KISQALI and for at least 3 weeks after the last dose of KISQALI

Tell your health care provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. KISQALI and other medicines may affect each other, causing side effects. Know the medicines you take. Keep a list of them to show your health care provider or pharmacist when you get a new medicine.

What should I avoid while taking KISQALI?

Avoid eating grapefruit and avoid drinking grapefruit juice during treatment with KISQALI since these may increase the amount of KISQALI in your blood.

The most common side effects of KISQALI include:

- decreased white blood cell counts
- decreased red blood cell counts
- abnormal liver function tests
- infections
- nausea
- increased kidney function test
- tiredness
- decreased platelet counts
- diarrhea
- vomiting
- headache
- constipation
- hair loss
- cough
- rash
- back pain
- low blood sugar level

KISQALI may cause fertility problems if you are male and take KISQALI. This may affect your ability to father a child. Talk to your health care provider if this is a concern for you.

Tell your health care provider if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of KISQALI. For more information, ask your health care provider or pharmacist. Call your doctor for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see accompanying full [Prescribing Information including Patient Information](#).

Disclaimer

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About Novartis

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