



# Pfizer Announces Overall Survival Results from Phase 3 PALOMA-3 Trial of IBRANCE® (Palbociclib) in HR+, HER2- Metastatic Breast Cancer

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Results show a positive trend in the secondary endpoint of overall survival, though not reaching statistical significance IBRANCE is approved worldwide in combination with fulvestrant based on compelling results from the primary endpoint of progression-free survival

Pfizer today announced overall survival (OS) results from the Phase 3 PALOMA-3 trial, which evaluated IBRANCE® (palbociclib) in combination with fulvestrant compared to placebo plus fulvestrant in women with hormone receptor-positive (HR+), human epidermal growth factor receptor 2-negative (HER2-) metastatic breast cancer whose disease has progressed after prior endocrine therapy. The results demonstrated a positive trend in the hazard ratio favoring the IBRANCE combination, although this trend did not reach statistical significance. Overall survival is a secondary endpoint of the PALOMA-3 trial and, as such, the trial design was not optimized to detect a statistically significant difference in OS.

“While the difference in overall survival narrowly missed the threshold for statistical significance – a high bar for any trial in this patient population – it is similar, in absolute terms, to the improvement in median progression-free survival previously demonstrated in this trial.<sup>1</sup> We are encouraged by these results, which build on the compelling clinical benefit delivered by IBRANCE,” said Mace Rothenberg, M.D., chief development officer,

Oncology, Pfizer Global Product Development. “IBRANCE in combination with endocrine therapy has transformed the treatment landscape for patients with HR+, HER2-metastatic breast cancer.”

PALOMA-3 met its primary endpoint of progression-free survival (PFS) at interim analysis and results were published in The New England Journal of Medicine in June 2015; updated PFS data were later presented at the 2016 San Antonio Breast Cancer Symposium. The trial demonstrated a statistically significant and clinically meaningful improvement in PFS for IBRANCE plus fulvestrant compared to placebo plus fulvestrant. PFS is a well-established measure of clinical benefit in metastatic breast cancer trials.<sup>2</sup> IBRANCE in combination with fulvestrant has been approved in more than 80 countries around the world based on the PFS demonstrated in PALOMA-3.

“The duration of the survival in hormone receptor-positive metastatic breast cancer patients, and the potential for subsequent therapies to confound overall survival outcomes, make demonstrating statistically significant improvement in overall survival extremely difficult,” said Nicholas Turner, M.D., Ph.D., professor of molecular oncology at The Institute of Cancer Research, London, and consultant medical oncologist at The Royal Marsden NHS Foundation Trust, as well as principal investigator of the PALOMA-3 trial. “The results from this overall survival analysis support the strong progression-free survival results from PALOMA-3 and, while not statistically significant, are encouraging for physicians and patients. We look forward to presenting the detailed data at an upcoming medical meeting.”

The most common adverse reactions in PALOMA-3 included neutropenia, leukopenia, infections, fatigue and nausea; no new safety signals were identified as part of this final OS analysis.

IBRANCE in combination with endocrine therapy is a standard of care for HR+, HER2-metastatic breast cancer. IBRANCE has been prescribed to more than 120,000 patients globally to date.

The full prescribing information for IBRANCE can be found at [www.pfizer.com](http://www.pfizer.com).

About IBRANCE® (palbociclib) 125 mg capsules

IBRANCE is an oral inhibitor of CDKs 4 and 6,<sup>3</sup> which are key regulators of the cell cycle that trigger cellular progression.<sup>4,5</sup> In the U.S., IBRANCE is indicated for the treatment of HR+, HER2- advanced or metastatic breast cancer in combination with an aromatase inhibitor as initial endocrine based therapy in postmenopausal women, or fulvestrant in

women with disease progression following endocrine therapy.

## IMPORTANT IBRANCE ® (palbociclib) SAFETY INFORMATION FROM THE U.S. PRESCRIBING INFORMATION

Neutropenia was the most frequently reported adverse reaction in PALOMA-2 (80%) and PALOMA-3 (83%). In PALOMA-2, Grade 3 (56%) or 4 (10%) decreased neutrophil counts were reported in patients receiving IBRANCE plus letrozole. In PALOMA-3, Grade 3 (55%) or Grade 4 (11%) decreased neutrophil counts were reported in patients receiving IBRANCE plus fulvestrant. Febrile neutropenia has been reported in 1.8% of patients exposed to IBRANCE across PALOMA-2 and PALOMA-3. One death due to neutropenic sepsis was observed in PALOMA-3. Inform patients to promptly report any fever.

Monitor complete blood count prior to starting IBRANCE, at the beginning of each cycle, on Day 15 of first 2 cycles and as clinically indicated. Dose interruption, dose reduction, or delay in starting treatment cycles is recommended for patients who develop Grade 3 or 4 neutropenia.

Based on the mechanism of action, IBRANCE can cause fetal harm. Advise females of reproductive potential to use effective contraception during IBRANCE treatment and for at least 3 weeks after the last dose. IBRANCE may impair fertility in males and has the potential to cause genotoxicity. Advise male patients with female partners of reproductive potential to use effective contraception during IBRANCE treatment and for 3 months after the last dose. Advise females to inform their healthcare provider of a known or suspected pregnancy. Advise women not to breastfeed during IBRANCE treatment and for 3 weeks after the last dose because of the potential for serious adverse reactions in nursing infants.

The most common adverse reactions ( $\geq 10\%$ ) of any grade reported in PALOMA-2 for IBRANCE plus letrozole vs placebo plus letrozole were neutropenia (80% vs 6%), infections (60% vs 42%), leukopenia (39% vs 2%), fatigue (37% vs 28%), nausea (35% vs 26%), alopecia (33% vs 16%), stomatitis (30% vs 14%), diarrhea (26% vs 19%), anemia (24% vs 9%), rash (18% vs 12%), asthenia (17% vs 12%), thrombocytopenia (16% vs 1%), vomiting (16% vs 17%), decreased appetite (15% vs 9%), dry skin (12% vs 6%), pyrexia (12% vs 9%), and dysgeusia (10% vs 5%).

The most frequently reported Grade  $\geq 3$  adverse reactions ( $\geq 5\%$ ) in PALOMA-2 for IBRANCE plus letrozole vs placebo plus letrozole were neutropenia (66% vs 2%), leukopenia (25% vs 0%), infections (7% vs 3%), and anemia (5% vs 2%).

Lab abnormalities of any grade occurring in PALOMA-2 for IBRANCE plus letrozole vs placebo plus letrozole were decreased WBC (97% vs 25%), decreased neutrophils (95% vs 20%), anemia (78% vs 42%), decreased platelets (63% vs 14%), increased aspartate aminotransferase (52% vs 34%), and increased alanine aminotransferase (43% vs 30%).

The most common adverse reactions ( $\geq 10\%$ ) of any grade reported in PALOMA-3 for IBRANCE plus fulvestrant vs placebo plus fulvestrant were neutropenia (83% vs 4%), leukopenia (53% vs 5%), infections (47% vs 31%), fatigue (41% vs 29%), nausea (34% vs 28%), anemia (30% vs 13%), stomatitis (28% vs 13%), diarrhea (24% vs 19%), thrombocytopenia (23% vs 0%), vomiting (19% vs 15%), alopecia (18% vs 6%), rash (17% vs 6%), decreased appetite (16% vs 8%), and pyrexia (13% vs 5%).

The most frequently reported Grade  $\geq 3$  adverse reactions ( $\geq 5\%$ ) in PALOMA-3 for IBRANCE plus fulvestrant vs placebo plus fulvestrant were neutropenia (66% vs 1%) and leukopenia (31% vs 2%).

Lab abnormalities of any grade occurring in PALOMA-3 for IBRANCE plus fulvestrant vs placebo plus fulvestrant were decreased WBC (99% vs 26%), decreased neutrophils (96% vs 14%), anemia (78% vs 40%), decreased platelets (62% vs 10%), increased aspartate aminotransferase (43% vs 48%), and increased alanine aminotransferase (36% vs 34%).

Avoid concurrent use of strong CYP3A inhibitors. If patients must be administered a strong CYP3A inhibitor, reduce the IBRANCE dose to 75 mg. If the strong inhibitor is discontinued, increase the IBRANCE dose (after 3-5 half-lives of the inhibitor) to the dose used prior to the initiation of the strong CYP3A inhibitor. Grapefruit or grapefruit juice may increase plasma concentrations of IBRANCE and should be avoided. Avoid concomitant use of strong CYP3A inducers. The dose of sensitive CYP3A substrates with a narrow therapeutic index may need to be reduced as IBRANCE may increase their exposure.

For patients with severe hepatic impairment (Child-Pugh class C), the recommended dose of IBRANCE is 75 mg. The pharmacokinetics of IBRANCE have not been studied in patients requiring hemodialysis.

## About Pfizer Oncology

Pfizer Oncology is committed to pursuing innovative treatments that have a meaningful impact on people living with cancer. Our growing pipeline of biologics, small molecules and immunotherapies is focused on identifying and translating the best scientific breakthroughs into clinical application for patients across a diverse array of solid tumors

and hematologic cancers. Today, we have 10 approved oncology medicines and 14 assets currently in clinical development. By maximizing our internal scientific resources and collaborating with other companies, government and academic institutions, as well as patients and non-profit and professional organizations, we are bringing together the brightest and most enterprising minds to take on the toughest cancers. Together we can accelerate breakthrough treatments to patients around the world and work to redefine life with cancer.

Pfizer Inc.: Working together for a healthier world ®

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products. Our global portfolio includes medicines and vaccines as well as many of the world's best-known consumer health care products. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at [www.pfizer.com](http://www.pfizer.com). In addition, to learn more, please visit us on [www.pfizer.com](http://www.pfizer.com) and follow us on Twitter at @Pfizer and @Pfizer\_News, LinkedIn, YouTube, and like us on Facebook at [Facebook.com/Pfizer](https://www.facebook.com/Pfizer).

DISCLOSURE NOTICE: The information contained in this release is as of June 25, 2018. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.

This release contains forward-looking information about IBRANCE (palbociclib), including its potential benefits, that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, uncertainties regarding the commercial success of IBRANCE; the uncertainties inherent in research and development, including the ability to meet anticipated clinical trial commencement and completion dates and regulatory submission dates, as well as the possibility of unfavorable clinical trial results, including unfavorable new clinical data and additional analyses of existing clinical data; the risk that clinical trial data are subject to differing interpretations, and,

even when we view data as sufficient to support the safety and/or effectiveness of a product candidate, regulatory authorities may not share our views and may require additional data or may deny approval altogether; whether regulatory authorities will be satisfied with the design of and results from our clinical studies; whether and when drug applications may be filed in any additional jurisdictions for IBRANCE for potential HR+, HER2- metastatic breast cancer indications or in any jurisdictions for any other potential indications for IBRANCE; whether and when any such other applications may be approved by regulatory authorities, which will depend on the assessment by such regulatory authorities of the benefit-risk profile suggested by the totality of the efficacy and safety information submitted; decisions by regulatory authorities regarding labeling and other matters that could affect the availability or commercial potential of IBRANCE; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results," as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov) and [www.pfizer.com](http://www.pfizer.com).

1 Turner NC, André F, Cristofanilli M, et al. Treatment postprogression in women with endocrine-resistant HR+/HER2- advanced breast cancer who received palbociclib plus fulvestrant in PALOMA-3. In: Proceedings of the 2016 San Antonio Breast Cancer Symposium; Dec 6-10, 2016; San Antonio, TX. Abstract P4-22-06.

2 Song SY, Seo H, Kim G, Kim AR, Kim EY. Trends in endpoint selection in clinical trials of advanced breast cancer. *Cancer Res Clin Oncol*. 2016;142(11):2403-2413.

3 IBRANCE® (palbociclib) Prescribing Information. New York. NY: Pfizer Inc: 2018.

4 Weinberg RA. pRb and control of the cell cycle clock. In: Weinberg RA, ed. *The Biology of Cancer*. 2nd ed. New York, NY: Garland Science; 2014:275-329.

5 Sotillo E, Grana X. Escape from cellular quiescence. In: Enders GH, ed. *Cell Cycle Deregulation in Cancer*. New York, NY: Humana Press; 2010:3-22.

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