BlueCross BlueShield Federal Employee Program

# PERJETA (pertuzumab)

## RATIONALE FOR INCLUSION IN PA PROGRAM

### Background

Perjeta (pertuzumab) is indicated for use in combination with trastuzumab and docetaxel in patients with HER2-positive metastatic breast cancer, and for use in combination with trastuzumab and chemotherapy as neoadjuvant or adjuvant therapies in patients with HER2-positive early breast cancer. Perjeta is a recombinant humanized monoclonal antibody which targets the extracellular human epidermal growth factor receptor 2 protein (HER2) dimerization domain. It inhibits HER2 dimerization and blocks HER downstream signaling halting cell growth and initiating apoptosis. Perjeta binds to a different HER2 epitope than trastuzumab so that when used in combination, a more complete inhibition of HER2 signaling occurs (1-3).

### Regulatory Status

FDA-approved indications: Perjeta (pertuzumab) is a HER2/neu receptor antagonist indicated for: (1)

1. Use in combination with trastuzumab and docetaxel for treatment of patients with HER2-positive metastatic breast cancer (MBC) who have not received prior anti-HER2 therapy or chemotherapy for metastatic disease
2. Use in combination with trastuzumab and chemotherapy as:
    a. Neoadjuvant treatment of patients with HER2-positive, locally advanced, inflammatory, or early stage breast cancer (either greater than 2 cm in diameter or node positive) as part of a complete treatment regimen for early breast cancer
    b. Adjuvant treatment of patients with HER2-positive early breast cancer at high risk of recurrence

Off-Label Uses: (2-3)

1. Treatment of recurrent disease

Perjeta should be withheld or discontinued if trastuzumab treatment is withheld or discontinued. If docetaxel is discontinued, treatment with Perjeta and trastuzumab may continue (1).

Perjeta carries boxed warnings for left ventricular dysfunction and embryo-fetal toxicity (1).

Perjeta can result in subclinical and clinical cardiac failure manifesting as congestive heart

failure (CHF) and decreased left ventricular ejection fraction (LVEF). Perjeta has not been studied in patients with a pretreatment LVEF value of less than 50%, a prior history of CHF, and decreases in LVEF to less than 50%. Assess cardiac function and LVEF prior to initiation of Perjeta and at regular intervals during treatment to ensure that LVEF is within the institution's normal limits (1).

Female patients of reproductive potential should have pregnancy status verified prior to initiation of therapy with Perjeta and advised to use effective contraception during treatment and for 7 months following the last dose of Perjeta in combination with trastuzumab (1).

Perjeta has warnings for infusion-related or hypersensitivity reactions and patients should be monitored for signs and symptoms (1).

The safety and effectiveness of Perjeta in pediatric patients have not been established (1).

**Summary**

Perjeta (pertuzumab) is indicated for use in combination with trastuzumab and docetaxel in patients with HER2-positive metastatic breast cancer, and for use in combination with trastuzumab and chemotherapy as neoadjuvant or adjuvant therapies in patients with HER2-positive early breast cancer. Perjeta carries boxed warnings for left ventricular dysfunction, and embryo-fetal toxicity. Perjeta has warnings for infusion-related reactions and hypersensitivity reactions/anaphylaxis. The safety and effectiveness of Perjeta in pediatric patients have not been established (1-3).

Prior approval is required to ensure the safe, clinically appropriate, and cost-effective use of Perjeta while maintaining optimal therapeutic outcomes.

**References**

1. Perjeta [package insert]. South San Francisco, CA: Genentech, Inc.; February 2021.
2. NCCN Drugs & Biologics Compendium® Pertuzumab 2025. National Comprehensive Cancer Network, Inc. Accessed on January 8, 2025.
3. NCCN Clinical Practice Guidelines in Oncology® Breast Cancer (Version 6.2024). National Comprehensive Cancer Network, Inc. November 2024. Accessed on January 8, 2025.