HER2-Overexpressing Breast Cancer:
Targeted Therapy Competitor Guide

COMPARISONS PROHIBITED

- This Training Tool is for internal training purposes only and cannot be used as a detail aid in your communications with healthcare professionals.
- The purpose of this Training Tool is to provide you with a general understanding of the targeted therapies used to treat HER2-overexpressing breast cancer. Please understand that the information contained in this Training Tool about HER2-overexpressing breast cancer products is solely for your information and may not be used in promotion.
- We expect the healthcare professionals you call on to be knowledgeable about products that target HER2-overexpressing breast cancer, and it is highly likely that your customer may mention a treatment for HER2-overexpressing breast cancer during a detail or that you will be asked specific questions about these products. Accordingly, it is important that you are familiar with them. However, according to Policy 1 in the US Sales and Marketing Communications Policy Letter, you are not to discuss products from other companies with healthcare professionals.
- You cannot use the data contained in this Training Tool to compare the efficacy and safety of ONTRUZANT™ (trastuzumab-dttb) with that of other products mentioned in this Training Tool. The FDA may consider such comparisons to be false and misleading because no head-to-head studies have been conducted. Therefore, you are prohibited from making such comparisons.

Targeted Therapies Approved for HER2-overexpressing Breast Cancer **Herceptin and Its Biosimilars**

Herceptin and its biosimilars are all indicated for:

Select patients for therapy based on an FDA-approved companion diagnostic for a trastuzumab product.

- **Adjuvant Breast Cancer:** Adjuvant treatment of HER2-overexpressing node-positive or node-negative (ER/PR negative or with one high-risk feature) breast cancer:
  - — As part of a treatment regimen consisting of doxorubicin, cyclophosphamide, and either paclitaxel or docetaxel
  - — As part of a treatment regimen with docetaxel and carboplatin
  - — As a single agent following multi-modality anthracycline-based therapy
- **Metastatic Breast Cancer:**
  - — In combination with paclitaxel for first-line treatment of HER2-overexpressing metastatic breast cancer
  - — As a single agent for treatment of HER2-overexpressing breast cancer in patients who have received one or more chemotherapy regimens for metastatic disease
- **Metastatic Gastric Cancer:**
  - — In combination with cisplatin and capecitabine or 5-fluorouracil, for the treatment of patients with HER2-overexpressing metastatic gastric or gastroesophageal junction adenocarcinoma who have not received prior treatment for metastatic disease

Targeted Therapies Approved for HER2-overexpressing Breast Cancer **Herceptin and Its Biosimilars**

Product	Year Approved	Marketed By	Vial Size(s)	Presentation
Herceptin® (trastuzumab for injection, for IV use	1998	Genentech	150 mg single-dose vial or a 420 mg multiple-dose vial	
Ogivri™ (trastuzumab-dkst) for injection, for IV use	2017	Mylan	150 mg single-dose vial or a 420 mg multiple-dose vial	
Herzuma® (trastuzumab-pkrb) for injection, for IV use	2018	Teva	150 mg single-dose vial or a 420 mg multiple-dose vial	
Kanjinti™ (trastuzumab-anns) for injection, for IV use	2019	Amgen	150 mg single-dose vial or a 420 mg multiple-dose vial	
Ontruzant™ (trastuzumab-dttb) for injection, for IV use	2019	Merck Sharp & Dohme	150 mg single-dose vial or a 420 mg multiple-dose vial	
Trazimera™ (trastuzumab-qyyp) for injection, for IV use	2019	Pfizer	420 mg multiple-dose vial	

Targeted Therapies Approved for HER2-overexpressing Breast Cancer **Other Targeted Therapies**

Product	Year Approved	Marketed By	Breast Cancer Indication	Dosage Forms/ Strengths	Presentation
Tykerb® (lapatinib) tablets, for oral use	2007	Novartis	**Metastatic Breast Cancer (MBC):** • In combination with capecitabine for the treatment of patients with advanced or metastatic breast cancer whose tumors overexpress HER2 and who have received prior therapy including an anthracycline, a taxane, and trastuzumab [Limitations of Use: Patients should have disease progression on trastuzumab prior to initiation of treatment with Tykerb in combination with capecitabine] • In combination with letrozole for the treatment of postmenopausal women with hormone receptor-positive MBC that overexpresses the HER2 receptor for whom hormonal therapy is indicated	250 mg tablets	
Perjeta® (pertuzumab) for injection, for IV use	2012	Genentech	• **Early Breast Cancer (EBC):** in combination with trastuzumab and chemotherapy for: — Neoadjuvant treatment of patients with HER2-positive, locally advanced, inflammatory, or early stage breast cancer (either > 2 cm in diameter or node positive) — Adjuvant treatment of patients with of HER2-positive EBC at high risk of recurrence • **Metastatic Breast Cancer:** in combination with trastuzumab and docetaxel for the treatment of patients with HER2-positive MBC who have not received prior anti-HER2 therapy or chemotherapy for metastatic disease	Injection: 420 mg/14 mL (30 mg/mL) in a single-dose vial	
Kadcyla® (ado-trastuzumab emtansine) for injection, for IV use	2013	Genentech	• **Early Breast Cancer:** single-agent adjuvant treatment of patients with HER2-positive EBC who have residual invasive disease after neoadjuvant taxane and trastuzumab-based treatment • **Metastatic Breast Cancer:** Single-agent treatment of patients with HER2-positive, MBC who previously received trastuzumab and a taxane, separately or in combination. Patients should have either: — Received prior therapy for metastatic disease, or — Developed disease recurrence during or within 6 months of completing adjuvant therapy	100 mg or 160 mg single-dose vials	
Nerlynx™ (neratinib) tablets, for oral use	2017	Puma	• **Early Breast Cancer:** As a single agent, indicated for the extended adjuvant treatment of adult patients with early stage HER2-positive-breast cancer, to follow adjuvant trastuzumab-based therapy • **Advanced or Metastatic Breast Cancer:** In combination with capecitabine, indicated to treat adult patients with advanced or metastatic HER2-positive breast cancer who have received 2 or more prior anti-HER2-based regimens in the metastatic setting	40-mg tablets	
ENHERTU® (fam-trastuzumab deruxtecan-nxki) for injection, for IV use	2019	Daiichi Sankyo	• **Metastatic Breast Cancer:** Indicated for the treatment of adult patients with unresectable or metastatic HER2-positive breast cancer who have received 2 or more prior anti-HER2-based regimens in the metastatic setting	100-mg single-use vial	
Herceptin HYLECTA™ (trastuzumab and hyaluronidase-oysk) injection, for subcutaneous use	2019	Genentech	• **Adjuvant Breast Cancer:** Adjuvant treatment of HER2-overexpressing node-positive or node-negative (ER/PR negative or with 1 high-risk feature) breast cancer — As part of a treatment regimen consisting of doxorubicin, cyclophosphamide, and either paclitaxel or docetaxel — As part of a treatment regimen with docetaxel and carboplatin — As a single agent following multi-modality anthracycline-based therapy • **Metastatic Breast Cancer** — In combination with paclitaxel for first-line treatment of HER2-overexpressing metastatic breast cancer — As a single agent for treatment of HER2-overexpressing breast cancer in patients who have received 1 or more chemotherapy regimens for metastatic disease	600 mg trastuzumab and 10,000 units hyaluronidase per 5 mL (120 mg/2,000 units per mL) in a single-dose vial