



## Kadcyla (ado-trastuzumab emtansine) PAM – 007

<b>Iowa Medicaid Program</b>	Prior Authorization	<b>Effective Date</b>	08/15/2013
<b>Revision Number</b>	9	<b>Last Reviewed</b>	10/18/2024
<b>Reviewed By</b>	Medicaid Medical Director	<b>Next Review</b>	10/17/2025
<b>Approved By</b>	Medicaid Clinical Advisory Committee	<b>Approved Date</b>	08/23/2019

### Overview

Medication: <sup>1</sup>	ado-trastuzumab emtansine
Brand Name:	Kadcyla®
Pharmacologic Category:	Antineoplastics; human epidermal growth factor receptor 2 (HER2)-targeted antibody and microtubule inhibitor conjugate
FDA-Approved Indication(s):	<ol style="list-style-type: none"> <li>1. Breast cancer, metastatic (MBC)* – as a single agent, indicated for the treatment of patients with human epidermal growth factor receptor 2 (HER2)-positive, metastatic breast cancer who previously received trastuzumab and a taxane, separately or in combination. Patients should have either:               <ol style="list-style-type: none"> <li>a. received prior therapy for metastatic disease; or</li> <li>b. developed disease recurrence during or within 6 months of completing adjuvant therapy.</li> </ol> </li> <li>2. Early breast cancer (EBC)* – as a single agent, indicated for the treatment of patients with HER2-positive EBC cancer who have residual invasive disease following neoadjuvant taxane and trastuzumab-based treatment.</li> </ol> <p>* Select patients for therapy based on FDA-approved companion diagnostic test</p>
How Supplied:	Single-dose vial: 100 mg or 160 mg
Dosage and Administration:	Intravenous (IV) infusion: 3.6 mg/kg every 3 weeks (21-day cycle) until disease progression or unacceptable toxicity, or for up to a total of 14 cycles for patients with early breast cancer.
Benefit Category:	Medical

#### BOXED WARNING: HEPATOTOXICITY, CARDIAC TOXICITY, EMBRYO-FETAL TOXICITY

- **Hepatotoxicity:** Serious hepatotoxicity has been reported, including liver failure and death in patients treated with Kadcyla®. Monitor serum transaminases and bilirubin prior to initiation of Kadcyla® treatment and prior to each dose. Reduce dose or discontinue Kadcyla® as appropriate in cases of increased serum transaminases or total bilirubin.
- **Cardiac Toxicity:** Kadcyla® administration may lead to reductions in left ventricular ejection fraction (LVEF). Evaluate left ventricular function in all patients prior to and during treatment with Kadcyla®. Withhold treatment for clinically significant decrease in left ventricular function.
- **Embryo-Fetal Toxicity:** Exposure to Kadcyla® during pregnancy can result in embryo-fetal harm. Advise patients of these risks and the need for effective contraception.

## Descriptive Narrative

Globally, breast cancer is the most frequently diagnosed malignancy, accounting for over two million cases each year. It is also the leading cause of cancer death in women worldwide. In the United States, breast cancer is the most common female cancer, and the second most common cause of cancer death in women.<sup>2</sup> An estimated 3,010 new cases of breast cancer in females will be diagnosed in Iowa in 2024, making it the second most commonly diagnosed cancer in the state (second only to prostate cancer), and with an estimated 370 deaths, it is the fourth highest cause of cancer deaths in Iowa in 2024.<sup>3</sup>

Up to 5 percent of women diagnosed with breast cancer in the U.S. have metastatic disease at the time of first presentation, despite the gains in early detection, and up to 30 percent of women with early-stage non-metastatic breast cancer at diagnosis will develop distant metastatic disease.

Breast cancer is a heterogenous, phenotypically diverse disease composed of several biologic subtypes that have distinct behavior. Amplification or overexpression of the human epidermal growth factor receptor 2 (*HER2*) oncogene\* is present in approximately 15 percent of primary invasive breast cancers. Women with both early-stage and metastatic breast cancer\*\* that meet criteria for HER2 positivity are treated with regimens including HER2-directed therapy.<sup>4</sup>

\* Human epidermal growth factor receptor 2 (*HER2*) is a growth-promoting protein on the outside of all breast cells. Breast cancer cells with higher-than-normal levels of HER2 are referred to as HER2-positive.

\*\* Metastatic breast cancer (MBC). Also called Stage IV, MBC is breast cancer that has spread to another part of the body, commonly the liver, brain, bones, or lungs.

## Guidelines

The National Comprehensive Cancer Network (NCCN) publishes guidelines for the prevention, diagnosis, and management of malignancies across the continuum of care. The NCCN Guidelines® are a comprehensive set of guidelines detailing the sequential management decisions and interventions that currently apply to 97 percent of cancers affecting patients in the United States. The guidelines are developed and updated by 61 individual panels, comprising over 1,700 clinicians and oncology researchers from the 33 NCCN Member Institutions.

Guidelines are reviewed and updated on a continual basis to ensure that the recommendations take into account the most current evidence. To view the most recent and complete version of the guidelines, go online to [NCCN.org](https://www.nccn.org). NCCN makes no warranties of any kind whatsoever regarding their content,

use or application and disclaims any responsibility for their application or use in any way.<sup>5,6</sup>

The information referenced at the time of this policy writing/revision is from the NCCN Guidelines® for (note version number and effective date):<sup>7</sup>

- Breast Cancer (v.4.2024 – July 3, 2024)

NCCN Guidelines® Recommendation(s) – Invasive Breast Cancer	
<p>(1) Preoperative/adjuvant therapy regimens <sup>a</sup></p> <p>a. HER2-Positive: Preferred Regimens</p> <p>i. If residual disease after preoperative therapy – ado-trastuzumab emtansine as a single agent: Category 1</p> <p>ii. If ado-trastuzumab emtansine is discontinued for toxicity – trastuzumab ± pertuzumab to complete one year of therapy: Category 1 <sup>b, c</sup></p> <p>iii. If node positive at initial staging – trastuzumab + pertuzumab: Category 1 <sup>d</sup></p> <p>b. HER2-Positive: Useful in Certain Circumstances</p> <p>i. Ado-trastuzumab emtansine (adjuvant setting only): Category 2A</p> <p>(2) Systemic Therapy Regimens for Recurrent Unresectable (Local or Regional) or Stage IV (M1) Disease <sup>e</sup></p> <p>a. HR-Positive or -Negative and HER2-Positive <sup>e</sup></p> <p>i. Third-Line – ado-trastuzumab emtansine: Category 2A <sup>f</sup></p> <p><sup>a</sup> Alternative taxanes (i.e., docetaxel, paclitaxel, albumin-bound paclitaxel) may be substituted for select patients due to medical necessity (i.e., hypersensitivity reaction). If substituted for weekly paclitaxel or docetaxel, then the weekly dose of albumin-bound paclitaxel should not exceed 125 mg/m<sup>2</sup>.</p> <p><sup>b</sup> Consider extended adjuvant neratinib following adjuvant trastuzumab-containing therapy for patients with HR-positive, HER2-positive disease with a perceived high risk of recurrence. The benefit or toxicities associated with extended neratinib in patients who have received pertuzumab or ado-trastuzumab emtansine is unknown.</p> <p><sup>c</sup> Trastuzumab given in combination with an anthracycline is associated with significant cardiac toxicity. Concurrent use of trastuzumab and pertuzumab with an anthracycline should be avoided.</p> <p><sup>d</sup> Updated results from the adjuvant APHINITY trial in HER2-positive early breast cancer, with a median follow-up of 8.4 years, have confirmed the benefit of adding pertuzumab to trastuzumab plus chemotherapy in preventing recurrences in those with node positive disease.</p> <p><sup>e</sup> Assess for germline <i>BRCA1/2</i> mutations in all patients with recurrent or metastatic breast cancer to identify candidates for PARP inhibitor therapy. While olaparib and talazoparib are FDA-indicated in HER2-negative disease, the panel supports use in any breast cancer subtype associated with a germline mutation. There is lower-level evidence for HER2-positive tumors, therefore category 2A for this setting.</p> <p><sup>f</sup> May be used as an option for third-line and beyond; the optimal sequence for third-line therapy and beyond is not known. If not a candidate fam-trastuzumab T-DM1 could be considered in the second-line.</p>	

NCCN Categories of Evidence and Consensus (all recommendations are category 2A unless otherwise indicated)	
Category 1	Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
Category 2A	Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
Category 2B	Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.
Category 3	Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

NCCN Categories of Preference (all recommendations are considered appropriate)	
Preferred intervention	Interventions that are based on superior efficacy, safety, and evidence; and, when appropriate, affordability.
Other recommended intervention	Other interventions that may be somewhat less efficacious, more toxic, or based on less mature data; or significantly less affordable for similar outcomes.
Useful in certain circumstances	Other interventions that may be used for select patient populations (defined with recommendation).

## Criteria

Prior authorization is required.

### HER2-Positive Early Breast Cancer with Residual Disease – Initial Criteria

Kadcyla® is considered medically necessary when **ALL** of the following are met:

1. Diagnosis of human epidermal growth factor receptor 2 (*HER2*)-positive early breast cancer (EBC); **AND**
2. Member has residual invasive disease following neoadjuvant taxane (paclitaxel or docetaxel) and trastuzumab-based treatment; **AND**
3. Kadcyla® will be administered as a single agent treatment regimen; **AND**
4. Member is 18 years of age or older; **AND**
5. Prescribed by, or in consultation with, an oncologist; **AND**
6. Request meets one of the following (a or b):
  - a. Regimen prescribed does not exceed 3.6 mg/kg every 3 weeks (21-day cycle) for a maximum of 14 cycles of therapy; or,
  - b. Regimen is supported by clinical practice guidelines (i.e., must be recommended in NCCN Guidelines®). Supporting clinical documentation must be provided with any request for which regimen prescribed does not align with FDA-approved labeling.

### HER2-Positive Metastatic Breast Cancer – Initial Criteria

Kadcyla® is considered medically necessary when **ALL** of the following are met:

1. Diagnosis of human epidermal growth factor receptor 2 (*HER2*)-positive metastatic breast cancer (MBC); **AND**
2. Member previously treated with trastuzumab and a taxane (paclitaxel or docetaxel), separately or in combination; **AND**
3. Member meets **ONE** of the following (a or b):
  - a. Received prior therapy for metastatic disease; **OR**
  - b. Developed disease recurrence during or within 6 months of completing adjuvant therapy; **AND**
4. Kadcyla® will be administered as a single agent treatment regimen; **AND**
5. Member is 18 years of age or older; **AND**
6. Prescribed by, or in consultation with, an oncologist; **AND**
7. Request meets one of the following (a or b):
  - a. Regimen prescribed does not exceed 3.6 mg/kg every 3 weeks (21-day cycle); or,
  - b. Regimen is supported by clinical practice guidelines (i.e., must be recommended in NCCN Guidelines®). Supporting clinical documentation must be provided with any request for which regimen prescribed does not align with FDA-approved labeling.

## Continuation Criteria (all above indications)

Kadcyla® is considered medically necessary for continuation of therapy when **ALL** of the following are met:

1. Member is currently receiving medication through the Iowa Medicaid benefit or has previously met initial approval criteria; **AND**
2. Documentation of positive clinical response to therapy, as demonstrated by tumor response or lack of disease progression, and an acceptable toxicity profile; **AND**
3. For early breast cancer (EBC) **ONLY**: Member has not received the maximum of 14 cycles of treatment with Kadcyla®; **AND**
4. Prescribed by, or in consultation with, an oncologist; **AND**
5. Request meets one of the following (a or b):
  - a. Regimen prescribed does not exceed 3.6 mg/kg every 3 weeks (21-day cycle):
    - 1) for a maximum of 14 cycles of therapy for early breast cancer; or
    - 2) until disease progression or unacceptable toxicity in metastatic breast cancer; or
  - b. Regimen is supported by clinical practice guidelines (i.e., must be recommended in NCCN Guidelines®). Supporting clinical documentation must be provided with any request for which regimen prescribed does not align with FDA-approved labeling.

## Approval Duration and Quantity Limits

Indication	Early Breast Cancer (EBC)	Metastatic Breast Cancer (MBC)
Duration of Authorization	<b>Initial:</b> 6 months or 8 cycles, whichever comes first	<b>Initial:</b> 6 months or 8 cycles, whichever comes first
	<b>Continuation:</b> 4 months (6 cycles), or until maximum 14 cycles are completed	<b>Continuation:</b> 12 months or 17 cycles whichever comes first
Quantity Limits	<ul style="list-style-type: none"> <li>• 3.6 mg/kg every 3 weeks (21-day cycle)</li> <li>• Treat for a total of 14 cycles unless there is disease recurrence or unmanageable toxicity</li> </ul>	<ul style="list-style-type: none"> <li>• 3.6 mg/kg every 3 weeks (21-day cycle)</li> <li>• Treat until disease progression or unmanageable toxicity</li> </ul>

## Coding and Product Information

The following list(s) of codes and product information are provided for reference purposes only and may not be all inclusive. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment, nor does the exclusion of a code imply that its association to the HCPCS code is inappropriate.

HCPCS	Description
J9354	Injection, ado-trastuzumab emtansine, 1 mg

ICD-10	Description
C50.11-C50.929	Malignant neoplasm of breast [HER2 positive] [not covered if HER2 negative]
C79.81	Secondary malignant neoplasm of breast
D05.00-D05.92	Carcinoma in situ of breast

NDC (Strength)	Labeler	Dosage	Pkg Size	Pkg Qty	Units/Pkg
50242-0087-01 (160 mg)	Genentech, Inc. (50242)	1 mg	1	EA	160
50242-0088-01 (100 mg)	Genentech, Inc. (50242)	1 mg	1	EA	100

## Compliance

1. Should conflict exist between the policy and applicable statute, the applicable statute shall supersede.
2. Federal and State law, as well as contract language, including definitions and specific contract provisions or exclusions, take precedence over medical policy and must be considered first in determining eligibility for coverage.
3. Medical technology is constantly evolving, and Iowa Medicaid reserves the right to review and update medical policy on an annual or as-needed basis.

Medical necessity guidelines have been developed for determining coverage for member benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. Medical necessity guidelines are developed for selected physician-administered medications found to be safe and proven to be effective in a limited, defined population or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in the service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. Criteria are revised and updated annually, or more frequently if new evidence becomes available that suggests needed revisions.

## References

- <sup>1</sup> Kadcyła® prescribing information (02/2022). Genentech, Inc.: San Francisco, CA. Available online: [www.kadcyla-hcp.com](http://www.kadcyla-hcp.com). Accessed July 3, 2024.
- <sup>2</sup> Joe BN. Clinical features, diagnosis, and staging of newly diagnosed breast cancer. Vora SR, ed. UpToDate. Waltham, MA: UpToDate Inc. [www.uptodate.com](http://www.uptodate.com). Accessed July 29, 2024.
- <sup>3</sup> American Cancer Society: Cancer Statistics Center. State of Iowa. Available online at [cancerstatisticscenter.cancer.org/states/iowa](http://cancerstatisticscenter.cancer.org/states/iowa). Accessed July 29, 2024.
- <sup>4</sup> Yamauchi H, Bleiweiss IJ. HER2 and predicting response to therapy in breast cancer. Vora SR, ed. UpToDate. Waltham, MA: UpToDate Inc. [www.uptodate.com](http://www.uptodate.com). Accessed September 6, 2024.


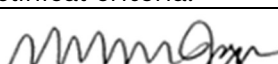
<sup>5</sup> National Comprehensive Cancer Network (NCCN). Guidelines Process: About Clinical Practice Guidelines. Available online at [www.nccn.org](http://www.nccn.org). Accessed July 29, 2024.

<sup>6</sup> National Comprehensive Cancer Network (NCCN). Guidelines Process: Development and Update of Guidelines. Available online at [www.nccn.org](http://www.nccn.org). Accessed July 29, 2024.

<sup>7</sup> NCCN Clinical Practice Guidelines in Oncology. The NCCN Guidelines<sup>®</sup> are a work in progress that may be refined as often as new significant data becomes available. To view the most recent and complete version, go online to [NCCN.org](http://NCCN.org). NCCN Guidelines<sup>®</sup> referenced (note version number and effective date):





- Breast Cancer (v.4.2024 – July 3, 2024)

Development of utilization management criteria may also involve research into other state Medicaid programs, other payer policies, consultation with experts and review by the Medicaid Clinical Advisory Committee (CAC). These sources may not be referenced individually unless they are specifically published and are otherwise applicable to the criteria at issue.

Criteria Change History			
Change Date	Changed By	Description of Change	Version
[mm/dd/yyyy]	CAC		[#]
<b>Signature</b>			
[mm/dd/yyyy]	CAC		[#]
<b>Signature</b>			
10/18/2024	CAC	Annual review. Reviewed NCCN Guidelines, updated where appropriate. Updated references.	9
<b>Signature</b>			
William (Bill) Jagiello, DO			
10/20/2023	CAC	Annual review. Added boxed warning to Overview section (hepatotoxicity, cardiac toxicity, embryo-fetal toxicity). Updated NCCN Guidelines. Added dosing regimens into clinical criteria.	8
<b>Signature</b>			
William (Bill) Jagiello, DO			



## Criteria Change History (continued)

Change Date	Changed By	Description of Change	Version
10/21/2022	CAC	Annual review. Updated NCCN recommendations. Added "Member is 18 years of age or older" to initial coverage criteria. Added standard language to continuation criteria: "1. Member is currently receiving medication through the Iowa Medicaid benefit or has previously met initial approval criteria." Updated references. Prior authorization requirement re-implemented effective 6/1/22 to align with current policy.	7
<b>Signature</b>			
William (Bill) Jagiello, DO			
Change Date	Changed By	Description of Change	Version
10/15/2021	CAC	Annual review.	6
<b>Signature</b>			
William (Bill) Jagiello, DO			
Change Date	Changed By	Description of Change	Version
07/17/2020	CAC	Prior authorization requirement removed.	5
<b>Signature</b>			
William (Bill) Jagiello, DO			
Change Date	Changed By	Description of Change	Version
07/16/2015	Medical Director	Criterion #1 added "over expression of the HER2 gene". Criterion #2 added "failed treatment or shown inadequate response with".	4
<b>Signature</b>			
Mark E. Randleman, DO			
Change Date	Changed By	Description of Change	Version
07/17/2015	CAC	Added last paragraph in References.	3
<b>Signature</b>			
Change Date	Changed By	Description of Change	Version
07/14/2015	Medical Director	Updated NCCN reference.	2
<b>Signature</b>			
Change Date	Changed By	Description of Change	Version
07/18/2014	CAC	Removed narrative that was a duplication of what is listed under criteria.	1
<b>Signature</b>			

CAC = Medicaid Clinical Advisory Committee