CLINICAL GUIDELINES FOR MEDICAL NECESSITY

MEDICAL POLICY

Palbociclib (Ibrance®)

Version: 1.0

EFFECTIVE DATE: 2/1/2025

NantHealth® | Eviti®

Please note the following:

Palbociclib (Ibrance®)

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Please refer to the CMS website at http://www.cms.gov for additional information.

Note: For Medicaid members/enrollees, circumstances when state Medicaid coverage provisions conflict with the coverage provisions within this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Palbociclib (Ibrance): Discussion

Palbociclib is used to treat adult patients with HR-positive, HER2-negative advanced or metastatic breast cancer and soft tissue cancer. It should always be used in combination with another regimen such as an aromatase inhibitor as initial endocrine-based therapy in postmenopausal women or in men with breast cancer. Palbociclib interrupts the process through which breast cancer cells divide and multiply by specific proteins known as the cyclin-dependent kinases 4 (CDK4) and 6 (CDK6).[1] The main mechanism of action of palbociclib is to induce cell cycle arrest and senescence in responsive cells. The inhibition of CDK4/6 results in the accumulation of the unphosphorylated form of the RB1 tumor suppressor, which is the main mechanism responsible for cell proliferation arrest and the global epigenetic reconfiguration of chromatin characteristics of senescent cells.[2]

Adverse reactions include neutropenia, infections, leukopenia, fatigue, nausea, stomatitis, anemia, alopecia, diarrhea, thrombocytopenia, rash, vomiting, decreased appetite, asthenia, and pyrexia.

Palbociclib is approved by the Food and Drug Administration (FDA) for breast cancer.[3]

The National Comprehensive Cancer Network (NCCN) endorses palbociclib for the following cancer types: breast, and soft tissue.[4,5]

Palbociclib: Definitions

- **National Comprehensive Cancer Network (NCCN)** - An alliance of more than 30 leading cancer centers devoted to patient care, research, and education. The NCCN guidelines are utilized for Radiation Therapy and Medical Oncology standards. NCCN consensus clinical standards are periodically updated and NantHealth, Inc. reviews these and updates its policies within a timely manner.
- **Food and Drug Administration (FDA)** - The FDA is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation.

Palbociclib: Policy

Note: Coverage of palbociclib will be provided for an FDA-approved indication or National Comprehensive Cancer Network (NCCN) guidelines when it is a Category 1, 2A, or 2B recommendation or when all criteria are met.

Palbociclib will be considered for coverage when the following criteria are met:

Breast Cancer

1. At least 18 years of age; AND
2. Prescribed by or in consultation with an oncologist; AND

For **FDA** required criteria coverage:

3. Hormone receptor (HR)-positive, human epidermal growth factor receptor 2 (HER2)-negative advanced or metastatic disease in combination with one of the following:
   a) Aromatase inhibitor as initial endocrine-based therapy
   b) Fulvestrant in patients with disease progression following endocrine therapy[3]; OR

For **NCCN** required criteria coverage:

4. Recurrent, unresectable (local or regional), or stage IV (M1) hormone receptor-positive, HER2-negative disease with no visceral crisis in postmenopausal women or premenopausal women treated with ovarian ablation or suppression for one of the following:
   a) First-line therapy in combination with fulvestrant if there is disease progression on adjuvant endocrine therapy (ET) or with disease relapse within 12 months of adjuvant ET completion
   b) First-line therapy in combination with inavolisib and fulvestrant if PIK3CA activating mutation positive after disease progression on adjuvant endocrine therapy or early disease relapse within 12 months of adjuvant ET completion
   c) First-line therapy in combination with an aromatase inhibitor
   d) Second-line or subsequent-line therapy in combination with fulvestrant if CDK4/6 inhibitor was not previously used.

Note: Men with breast cancer should be treated similarly to postmenopausal women, except that the use of an aromatase inhibitor is ineffective without concomitant suppression of testicular steroidogenesis.[4]

Soft Tissue Sarcoma

Retroperitoneal Well-Differentiated or Dedifferentiated Liposarcoma

1. At least 18 years of age; AND
2. Prescribed by or in consultation with an oncologist; AND

For **NCCN** required criteria coverage:

3. Single agent for the treatment of unresectable disease.[5]

Authorization Period and Renewal Criteria

1. Initial Authorization Period: 12 months
2. Renewal Criteria: No evidence of disease progression or unacceptable toxicity
3. Renewal Authorization Period: 12 months

Palbociclib: References

1. Liu Minghui et al. Mechanisms of the CDK4/6 inhibitor palbociclib (PD 0332991) and its future application in cancer treatment. https://pubmed.ncbi.nlm.nih.gov/29399694/. Accessed February 4, 2025.
2. Lianos Susana et al. Lysosomal trapping of palbociclib and its functional implications. https://pubmed.ncbi.nlm.nih.gov/30692638/. Accessed February 4, 2025.
3. Palbociclib Package Insert. https://www.accessdata.fda.gov/drugsatfda_docs/label/2024/207103s022lbl.pdf. Accessed February 4, 2025.
4. National Comprehensive Cancer Network. Breast Cancer. https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf. Accessed February 4, 2025.
5. National Comprehensive Cancer Network. Soft Tissue Sarcoma. https://www.nccn.org/professionals/physician_gls/pdf/sarcoma.pdf. Accessed February 4, 2025.

Palbociclib: Coding (CPT®, ICD 10, and HCPCS) *

*Procedure codes appearing in medical policy documents are only included as a general reference. This list may not be all-inclusive and is subject to updates. In addition, the codes listed are not a guarantee of payment. CPT codes are available through the AMA.

Code	Description
C48.0	Retroperitoneal well-differentiated and dedifferentiated liposarcoma
C49.9	Soft tissue sarcoma
C50.0	Breast cancer
J8999	Palbociclib

Palbociclib: Revision and Review History

No.	Description	Date(s)
1	Original Effective Date:	2/1/2025
2	Policy Review Dates:	
3	Policy Revision Dates:	
4	Department Owner:	Medical Affairs
5	NH Advisory Committee:	2/25/2025
6	Revision Changes:	