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to exceptional
oncology care
begins here.

Elsevier's ClinicalPath places evidence-based oncology pathways and clinical trial support within the workflow to empower patient-centered treatment decisions for optimal patient outcomes.

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- **Standardize care:** Supports standardization of care among physicians in an increasingly complex field.
- **Provide evidence:** Guides oncologists in their treatment decisions, based on the latest evidence-based research.
- **Prioritize clinical trials:** Promotes accrual to clinical trials, with trials prioritized within each pathway.

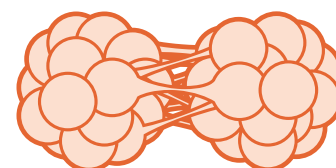


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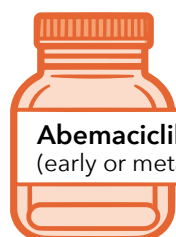
Adverse Event Management for CDK Inhibitors in Hormone Receptor-Positive Breast Cancer

General Overview

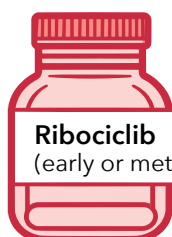
CDK4/6 proteins control how quickly cells grow and divide. In breast cancer, these proteins can become overactive and cause the cells to proliferate and divide uncontrollably. CDK4/6 inhibitors interrupt these proteins to slow or even stop the cancer cells from growing.¹



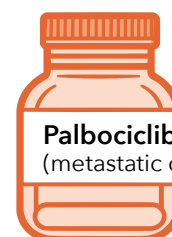
Three CDK4/6 inhibitors have been approved for use in patients with breast cancer:*



Abemaciclib
(early or metastatic disease)



Ribociclib
(early or metastatic disease)



Palbociclib
(metastatic disease)

*as of 11/2024

Therapeutic selection depends upon patient factors that may affect adherence (eg, toxicity profile, administration schedule).²



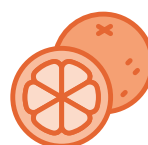
These agents are typically given with endocrine therapy (eg, an aromatase inhibitor (AI) or fulvestrant).



Note:

In early-stage breast cancer, abemaciclib can be given with tamoxifen or an AI. In patients with metastatic disease, abemaciclib can also be given alone following endocrine therapy and prior chemotherapy. Dosing for monotherapy differs when abemaciclib is given as part of combination therapy.³

Patient Education³⁻⁵



Patients should avoid consumption of grapefruit products and Seville oranges.



Patients should avoid concomitant use of strong CYP3A inducers.



Patients should avoid pregnancy due to embryofetal toxicity; advise use of effective contraception.



Patients should not breastfeed.

Abemaciclib³

Common adverse events

- Laboratory abnormalities
 - Increased creatinine may occur without worsening kidney function. Consider additional markers.
- Gastrointestinal (GI) disturbance
- Neutropenia
- Anemia
- Fatigue

Less common but severe

- Venous thromboembolism (VTE)
- Pneumonitis
- Thrombocytopenia

Monitoring

- Complete blood count (CBC)
- Liver function panel
- Electrolyte levels

Dose modifications

*For recommendations for dose modifications related to a specific adverse effect, please refer to the package insert.

- For combination therapy:
150mg 2x/day → 100mg 2x/day → 50mg → discontinue
- For monotherapy:
200mg 2x/day → 150mg 2x/day → 100mg 2x/day → 50mg 2x/day → discontinue.

For early-stage breast cancer, continue until completion of 2 years of treatment, disease recurrence, or unacceptable toxicity.

Ribociclib⁴

Common adverse events

- Neutropenia
- Anemia
- GI disturbance
- Fatigue
- Change in liver function
- Alopecia

Less common but severe

- QT prolongation
- Pneumonitis
- Skin reaction

Monitoring

- CBC
- Liver function panel
- Electrocardiogram (ECG)
- Electrolyte levels

Dose modifications

*For recommendations for dose modifications related to a specific adverse effect, please refer to the package insert.

For all dosing, take for 21 days consecutively, followed by 7 days off treatment.

- For early breast cancer:
400mg/day → 200mg/day → discontinue
- For metastatic breast cancer:
600mg/day → 400mg/day → 200mg/day → discontinue.

Palbociclib⁵

Common adverse events

- Anemia
- Neutropenia
- Thrombocytopenia
- Fatigue
- Changes in liver function
- GI disturbance
- Alopecia
- Stomatitis

Less common but severe

- Pneumonitis

Monitoring

- CBC
- Liver function panel

Dose modifications

*For recommendations for dose modifications related to a specific adverse effect, please refer to the package insert.

- 125mg/day → 100mg/day → 75mg/day → discontinue.

Management Tips to Promote Adherence

Use the following as a guide and refer to package inserts for additional information.



Diarrhea^{6,7}

Patient education

At the first sign of loose stools, patients should start using an antidiarrheal agent, increase fluid intake, and notify the physician. Monitor number of daily bowel movements.

Supportive medications

Patients should take antidiarrheals, such as loperamide, at the first sign of loose stools.

Lifestyle management

Patients should drink 8 to 10 glasses of water each day and eat small frequent, bland, low-fiber meals. Avoid high-fiber foods; spicy, fried, or greasy foods; those that cause gas; or those that contain lactose.



Nausea or vomiting⁶⁻⁸

Patient education

Patients should inform providers if they experience nausea or vomiting.

Supportive medications

Patients should use antiemetics, such as ondansetron, as indicated.

Lifestyle management

Patients should eat small, frequent meals, and bland foods. Avoid lying down or exercising vigorously immediately after eating, and avoid strong odors.



Neutropenia⁶⁻⁸

Patient education

Patients should promptly report any fever to their provider.

Lifestyle management

Patients should wash their hands often, avoid crowds and people who are sick, and maintain good personal hygiene.



Anemia⁶⁻⁸

Patient education

Patients should inform their provider if they experience shortness of breath, dizziness, or palpitations.

Lifestyle management

Patients should try to get 7 to 8 hours of sleep each night, find balance between work and rest, and stay as active as possible.



Thrombocytopenia⁶⁻⁸

Patient education

Patients should call their provider if bleeding will not stop; examples include a bloody nose that persists for more than 5 minutes, gums that bleed excessively, or a cut that continues to bleed. Immediate medical attention is needed if severe headaches, blood in the urine or stool, coughing up of blood, or prolonged and uncontrollable bleeding occur.

Lifestyle management

Patients should use a soft toothbrush, an electronic razor instead of blades, and a nail file instead of clippers.



Hepatotoxicity⁶⁻⁸

Patient education

Patient should inform the provider if they note yellowing of the skin or eyes, dark or brown urine, or unusual bleeding or bruising.

Lifestyle management

Avoid alcohol and concomitant medications that affect the liver.



VTE⁶

Patient education

Patients should report signs and symptoms of VTE or pulmonary embolism to their provider.

Supportive medications

Medications should be prescribed as clinically appropriate.



QT prolongation⁷

Patient education

Patient should be aware that this is detected on ECG and they may not have any symptoms.

Lifestyle management

Avoid strenuous exercise.



Fatigue⁶⁻⁸

Patient education

Patients may feel more tired than usual or have less energy.

Lifestyle management

Patients should maintain as active a lifestyle as possible. Avoid operating heavy machinery when fatigued.



Alopecia^{7,8}

Patient education

Patients may experience hair loss, however hair *usually* grows back when treatment ends.

Supportive medications

Complementary/alternative treatments may be used if not contraindicated, if discussed with provider.⁹



Stomatitis⁸

Patient education

Patients should call their provider if they experience pain or sores in the mouth or throat.

Supportive medications

Patients should use mouth rinses 4 times daily.

Lifestyle management

Patients should avoid use of alcoholic beverages and tobacco, and they should not use mouthwashes that contain alcohol. They should rinse their mouths frequently.

References

1. Pavlovic D, Niciforovic S, Papic D, Milojevic K, Markovic M. CDK4/6 inhibitors: basics, pros, and major cons in breast cancer treatment with specific regard to cardiotoxicity – a narrative review. *Ther Adv Med Oncol*. 2023;15:17588359231205848. doi:10.1177/17588359231205848
2. Fontanella C, Giorgi CA, Russo S, et al. Optimizing CDK4/6 inhibitors in advanced HR+/HER2-breast cancer: a personalized approach. *Crit Rev Oncol Hematol*. 2022;180:103848. doi:10.1016/j.critrevonc.2022.103848
3. Verzenio. Product information. Lilly; 2024. FDA. Accessed November 12, 2024. <https://uspl.lilly.com/verzenio/verzenio.html#pi>
4. Kisqali. Product information. Novartis; 2024. FDA. Accessed November 12, 2024. https://www.novartis.com/us-en/sites/novartis_us/files/kisqali.pdf
5. Ibrance. Product information. Pfizer; 2023. FDA. Accessed November 12, 2024. <https://labeling.pfizer.com/ShowLabeling.aspx?id=12921>
6. Oral cancer treatment education: abemaciclib. Hematology/Oncology Pharmacy Association. Updated February 2, 2024. Accessed November 12, 2024. https://oralchemoedsheets.com/sheets/Abemaciclib_Patient_Education.pdf
7. Oral cancer treatment education: ribociclib. Hematology/Oncology Pharmacy Association. Updated January 5, 2024. Accessed November 12, 2024. <https://oralchemoedsheets.com/index.php/sheet-library/sheet-library-3/214-ribociclib>
8. Oral cancer treatment education: palbociclib. Hematology/Oncology Pharmacy Association. Updated September 30, 2024. Accessed November 12, 2024. https://oralchemoedsheets.com/sheets/Palbociclib_Patient_Education.pdf
9. Wikramanayake TC, Haberland NI, Akhundlu A, Nieves AL, Miteva M. Prevention and treatment of chemotherapy-induced alopecia: what is available and what is coming? *Curr Oncol*. 2023;30(4):3609-3626. doi: 10.3390/currenol30040275

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