Afinitor and Afinitor Disperz (everolimus)

Background
Afinitor is a macrolide immunosuppressant and a mechanistic target of rapamycin (mTOR) inhibitor which helps control cell division and reducing the growth of new blood vessels, and also reduces benign tumor volume in patients with angiomyolipoma. Reduces protein creation and cell growth by binding to the FK binding protein-12 (FKBP-12), an intracellular protein, to form a complex that inhibits activation of mTOR (mechanistic target of rapamycin) serine-threonine kinase activity (1).

Regulatory Status
FDA-approved indications: Afinitor is a kinase inhibitor that is indicated for: (2)

1. Postmenopausal women with advanced hormone receptor-positive, HER2-negative breast cancer (advanced HR+ BC) in combination with exemestane after failure of treatment with letrozole or anastrozole.
2. Adults with progressive neuroendocrine tumors of pancreatic origin (PNET) and adults with progressive, well-differentiated, non-functional neuroendocrine tumors (NET) of gastrointestinal (GI) or lung origin that are unresectable, locally advanced or metastatic.
3. Adults with advanced renal cell carcinoma (RCC) after failure of treatment with sunitinib or sorafenib.
4. Adults with renal angiomyolipoma and tuberous sclerosis complex (TSC), not requiring immediate surgery.

Afinitor Disperz is a kinase inhibitor indicated for:
1. The treatment of adult and pediatric patients aged 2 years and older with TSC-associated partial-onset seizures (2).

Afinitor and Afinitor Disperz are kinase inhibitors indicated for the treatment of:

1. Pediatric and adult patients with tuberous sclerosis complex (TSC) who have subependymal giant cell astrocytoma (SEGA) that requires therapeutic intervention but cannot be curatively resected (2).

Limitations of Use: (2)
Afinitor is not indicated for the treatment of patients with functional carcinoid tumors.

Off Label Uses:
Through randomized control trials and phase II studies, Afinitor has been found effective in the following disease states: (3)

1. Lung neuroendocrine tumors
2. Waldenstrom’s macroglobulinemia/lymphoplasmacytic lymphoma
3. Soft Tissue sarcoma:
   a. Perivascular epithelioid cell tumors (PEComa)
   b. Recurrent angiomyolipoma
   c. Lymphangioleiomyomatosis
4. Classical Hodgkin lymphoma
5. Advanced HR-positive, HER2-negative breast cancer, in combination with exemestane that progressed within 12 months, has been previously treated with a nonsteroidal aromatase inhibitor, or previously treated with tamoxifen.
6. Gastrointestinal (GI) neuroendocrine tumors - metastatic or unresectable progressive disease
7. Thymus neuroendocrine tumors - metastatic or unresectable progressive disease
8. Osteosarcoma
9. Thymomas / Thymic carcinomas
10. Thyroid carcinoma – Papillary, Hürthle cell, and follicular thyroid carcinoma
11. Relapse or stage IV RCC:
    a. Systemic therapy for non-clear cell histology
    b. Subsequent therapy for predominant clear cell histology
12. Gastrointestinal stromal tumors (GIST) – treatment in combination with either imatinib, sunitinib, or regorafenib for disease progression after single-agent therapy with imatinib, sunitinib, and regorafenib
13. Endometrial carcinoma – in combination with letrozole
Afinitor may be considered **medically necessary** for patients 18 years of age and older for the following indications: renal cell carcinoma; advanced HR-positive, HER2 negative breast cancer; Hodgkin’s lymphoma; lung neuroendocrine tumors; soft tissue sarcoma; pancreatic neuroendocrine tumors; Waldenström’s macroglobulinemia/lymphoplasmacytic lymphoma; renal angiomyolipoma with Tuberous Sclerosis Complex (TSC); gastrointestinal (GI) neuroendocrine tumors; thymus neuroendocrine tumors; osteosarcoma; thymomas / thymic carcinomas; Thyroid carcinoma; Gastrointestinal Stromal Tumors (GIST); Endometrial carcinoma; and if the conditions indicated below are met.

Afinitor Disperz may be considered **medically necessary** for patients 2 years of age and older for TSC- associated partial-onset seizures and if the conditions indicated below are met.

Afinitor Disperz and Afinitor may be considered **medically necessary** for patients 1 year of age or older for the diagnosis of Subependymal Giant Cell Astrocytoma (SEGA) with TSC; and if the conditions indicated below are met.

Afinitor and Afinitor Disperz are considered **investigational** in patients under the age of 1 and for all other indications.

**Prior-Approval Requirements**

**Diagnoses**

**Afinitor**

**Age:** 18 years of age or older

Patient must have **ONE** of the following:
1. Renal Cell Carcinoma with **ONE** of the following:
   a. Disease is of non-clear cell histology
   b. Disease is of predominantly clear cell histology and has progressed on prior antiangiogenic therapy
2. Advanced HR-positive, HER2 negative breast cancer
   a. Patient has previously been treated with letrozole or anastrozole
   b. Used in combination with exemestane
3. Hodgkin’s lymphoma
4. Lung neuroendocrine tumors
5. Soft tissue sarcoma that expresses **ONE** of the following histologies:
   a. PEComa/Recurrent
   b. Angiomyolipoma
   c. Lymphangioleiomyomatosis
6. Pancreatic neuroendocrine tumors
7. Waldenström’s macroglobulinemia/lymphoplasmacytic lymphoma
8. Renal angiomyolipoma with Tuberous Sclerosis Complex (TSC)
   a. Patient does **NOT** require immediate surgery
9. Gastrointestinal (GI) neuroendocrine tumors
   a. Metastatic or unresectable progressive disease
10. Thymus neuroendocrine tumors
    a. Metastatic or unresectable progressive disease
11. Osteosarcoma
    a. Patient has previously been treated with an first-line therapy agent
    b. Used in combination with sorafenib
12. Thymomas / Thymic carcinomas
13. Thyroid carcinoma that expresses **ONE** of the following histologies:
    a. Papillary
    b. Hürthle cell
    c. Follicular thyroid carcinoma
14. Gastrointestinal Stromal Tumors (GIST)
    a. Used in combination with either imatinib, sunitinib, or regorafenib
    b. Disease progression after single-agent therapy with imatinib, sunitinib, or regorafenib
15. Endometrial carcinoma
    a. Used in combination with letrozole

Afinitor Disperz
Age: 2 years of age or older

Patient must have the following:

1. TSC associated partial-onset seizures.
   a. Used as adjunctive therapy

Afinitor and Afinitor Disperz

Age: 1 year of age or older

Patient must have the following:

1. Subependymal Giant Cell Astrocytoma (SEGA) with TSC
   a. NOT a candidate for curative surgical resection
   b. NOT being used to prevent kidney transplant rejection

Prior – Approval Renewal Requirements

Diagnoses

Afinitor

Age: 18 years of age or older

Patient must have ONE of the following

1. Renal cell carcinoma
2. Advanced HR-positive, HER2 negative breast cancer
   a. Used in combination with exemestane
3. Hodgkin’s lymphoma
4. Lung neuroendocrine tumors
5. Soft tissue sarcoma that expresses ONE of the following histologies:
   a. PEComa/Recurrent
   b. Angiomyolipoma
   c. Lymphangioleiomyomatosis
6. Pancreatic neuroendocrine tumors
7. Waldenström's Macroglobulinemia/Lymphoplasmacytic Lymphoma  
8. Renal Angiomyolipoma with Tuberous Sclerosis Complex (TSC)  
9. Gastrointestinal (GI) neuroendocrine tumors  
10. Thymus neuroendocrine tumors  
11. Osteosarcoma  
   a. Used in combination with sorafenib  
12. Thymomas / Thymic carcinomas  
13. Thyroid carcinoma that expresses ONE of the following histologies:  
   a. Papillary  
   b. Hürthle cell  
   c. Follicular thyroid carcinoma  
14. Gastrointestinal Stromal Tumors (GIST)  
   a. Used in combination with either imatinib, sunitinib, or regorafenib  
15. Endometrial carcinoma  
   a. Used in combination with letrozole

**Afinitor Disperz**

**Age:** 2 years of age or older

Patient must have the following:

1. TSC associated partial-onset seizures.  
   a. Used as adjunctive therapy

**Afinitor and Afinitor Disperz**

**Age:** 1 year of age or older

Patient must have the following:

1. Subependymal Giant Cell Astrocytoma (SEGA) with TSC  
   a. **NOT** being used to prevent kidney transplant rejection

**Policy Guidelines**

**Pre - PA Allowance**

None
Prior - Approval Limits

**Quantity**

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<thead>
<tr>
<th>Strength</th>
<th>Quantity per 84 days</th>
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<tr>
<td>2.5 mg</td>
<td>168 tablets per 84 days OR</td>
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<tr>
<td>5 mg</td>
<td>168 tablets per 84 days OR</td>
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<td>7.5 mg</td>
<td>84 tablets per 84 days OR</td>
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<tr>
<td>10 mg</td>
<td>84 tablets per 84 days</td>
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**Maximum daily limit of any combination: 10 mg**

OR

<table>
<thead>
<tr>
<th>Strength</th>
<th>Quantity per 84 days</th>
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<tbody>
<tr>
<td>2 mg</td>
<td>168 capsules per 84 days OR</td>
</tr>
<tr>
<td>3 mg</td>
<td>168 capsules per 84 days OR</td>
</tr>
<tr>
<td>5 mg</td>
<td>168 capsules per 84 days</td>
</tr>
</tbody>
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**Maximum daily limit of any combination: 10 mg**

**Duration** 12 months

Prior – Approval *Renewal* Limits

Same as above

**Rationale**

**Summary**

Afinitor (everolimus) is medically necessary to stop the overactive mTOR kinases from fueling cancer cells with the energy they need to grow and proliferate. Afinitor reduces protein creation and cell growth by binding to the FK binding protein-12 (FKBP-12), an intracellular protein, to form a complex that inhibits activation of mTOR (mechanistic target of rapamycin) serine-threonine kinase activity (1).

Prior authorization is required to ensure the safe, clinically appropriate and cost effective use of Afinitor (everolimus) while maintaining optimal therapeutic outcomes.

**References**

1. Lexicomp (Medical Abbreviations) [computer program]. Lexi-comp; May 6, 2019.
Section: Prescription Drugs  Effective Date: January 1, 2020
Subsection: Antineoplastic Agents  Original Policy Date: October 30, 2015
Subject: Afinitor  Page: 8 of 9


## Policy History

<table>
<thead>
<tr>
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<tr>
<td>October 2015</td>
<td>Addition to PA</td>
</tr>
<tr>
<td>December 2015</td>
<td>Annual review</td>
</tr>
<tr>
<td>March 2016</td>
<td>Addition of thymus neuroendocrine tumors that are metastatic or unresectable progressive disease; gastrointestinal (GI) neuroendocrine tumors that are metastatic or unresectable progressive disease; osteosarcoma that patient has previously been treated with an first-line therapy agent and used in combination with sorafenib; thymomas / thymic carcinomas that patient has previously been treated with an first-line therapy agent Removal of patient has had disease progression after treatment with sunitinib or sorafenib Policy number changed from 5.04.62 to 5.21.62</td>
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<tr>
<td>June 2016</td>
<td>Annual review</td>
</tr>
<tr>
<td>June 2017</td>
<td>Annual editorial review and reference update Addition of age limits to renewal criteria</td>
</tr>
<tr>
<td>February 2018</td>
<td>Addition of the following indications: Thyroid carcinoma that expresses one of the following histologies: Papillary, Hürttule cell, Follicular thyroid carcinoma; Gastrointestinal Stromal Tumors (GIST) with following requirements: Used in combination with either imatinib, sunitinib, or regorafenib, and disease progression after single-agent therapy with imatinib, sunitinib, and regorafenib; Endometrial carcinoma used in combination with letrozole Addition of the following requirement to Renal Cell Carcinoma with one of the following: Disease is of non-clear cell histology, or Disease is of predominantly clear cell histology and has progressed on prior antiangiogenic therapy Addition of quantity limits Removal of the Renal Cell Carcinoma requirement of has had disease progression after treatment with sunitinib or sorafenib</td>
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<tr>
<td>March 2018</td>
<td>Annual review</td>
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<tr>
<td>May 2018</td>
<td>Addition of the diagnosis TSC associated partial seizures for patients 2 years of age and older for Afinitor Disperz.</td>
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<tr>
<td>June 2018</td>
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<td>June 2019</td>
<td>Annual review and reference update</td>
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December 2019    Annual review

**Keywords**

This policy was approved by the FEP® Pharmacy and Medical Policy Committee on December 6, 2019 and is effective on January 1, 2020.