



## Prior Authorization Criteria Update: Dupilumab (Dupixent<sup>®</sup>) (Targeted Immune Modulators for Severe Asthma and Severe Atopic Dermatitis)

#### PLAIN LANGUAGE SUMMARY:

- This review was written because a medicine called Dupixent (dupilumab) was approved by the U.S. Food and Drug Administration to be used for a disorder called eosinophilic esophagitis. This disorder makes it difficult and painful to swallow food, or even cause people to vomit and have chest pain.
- Dupilumab was studied in one trial that lasted 24 weeks. The trial studied both adults and children older than 12 years who had eosinophilic esophagitis.
- Patients who took dupilumab in the trial had better improvement in tissue taken from the esophagus when viewed under a microscope. More importantly, patients tended to feel better on dupilumab because they could swallow food better.
- The side effects seen in patients who took dupilumab were not different than in patients who did not take dupilumab. We do not know if other side effects could come up if this drug is used for a long time.
- Dupilumab may be a treatment option in patients older than 12 years who are on the Oregon Health Plan and have a diagnosis of eosinophilic esophagitis.

#### **Purpose of Update:**

Dupilumab was recently reviewed by the Pharmacy and Therapeutics (P & T) Committee at the June 2022 meeting has part of the atopic dermatitis and severe asthma class updates. The literature search for the review was conducted through February, 2022. The P & T Committee approved recommendations to amend prior authorization (PA) criteria for targeted immune modulators approved to treat severe asthma and severe atopic dermatitis, including dupilumab. In May 2022, the Food and Drug Administration (FDA) approved an expanded indication for dupilumab to treat eosinophilic esophagitis in adults and pediatric patients 12 years and older weighing at least 40 kg.<sup>1</sup> In June 2022, the FDA expanded the approved age for the use of dupilumab in atopic dermatitis to pediatric patients aged 6 months and older.<sup>1</sup> This update reviews the evidence for the use of dupilumab in treating eosinophilic esophagitis.

#### **Recommendation:**

Revise clinical prior authorization (PA) criteria to:

- Provide coverage for treatment of eosinophilic esophagitis with dupilumab in patients aged 12 years of age and older who weigh at least 40 kg.
- Provide coverage for treatment of moderate-to-severe atopic dermatitis with dupilumab in patients who are not adequately controlled with topical prescription therapies or in patients aged 6 months or older in whom those topical therapies are not advisable.
- Revise proton pump inhibitor (PPI) criteria to include eosinophilic esophagitis (ICD-K200) as an indication for extended therapy if the patient is responding to PPI treatment.

#### Background:

Dupilumab is FDA-approved for 4 indications: 1) treatment of patients aged 6 months and older with moderate-to-severe atopic dermatitis; 2) as an add-on maintenance treatment of patients aged 6 years and older with moderate-to-severe asthma characterized by an eosinophilic phenotype or with oral corticosteroid dependent asthma; 3) as an add-on maintenance treatment in adult patients with inadequately controlled chronic rhinosinusitis with nasal polyposis; and 4) treatment of patients aged 12 years and older with eosinophilic esophagitis who weigh at least 40 kg.<sup>1</sup>

Eosinophilic esophagitis is a chronic immune-mediated disorder in which eosinophils are found in esophageal mucosa in response to various stimuli or antigens.<sup>2</sup> Assessment of esophageal tissues from patients with eosinophilic esophagitis has revealed a pattern of dilated interepithelial spaces, altered epithelial barrier function, and down-regulation of proteins associated with barrier function.<sup>3</sup> Altered epithelial permeability can lead to an environment that enhances antigen presentation, which in turn leads to recruitment of eosinophils.<sup>3</sup> In a recent study, 63.5% of patients with eosinophilic esophagitis also had a diagnosis of either asthma, allergic rhinitis, atopic dermatitis, or food allergies, with 3% having all 4 diagnoses.<sup>4</sup> Type 2 inflammation underpins the pathophysiology of these conditions, which are characterized by the release of cytokines such as interleukin (IL)-4, IL-13, and IL-5, resulting in tissue infiltration by eosinophils, epithelial hyperplasia, and tissue remodeling.<sup>5</sup>

Eosinophilic esophagitis is one of the most prevalent esophageal diseases after gastroesophageal reflux disease.<sup>2</sup> The incidence of eosinophilic esophagitis in industrialized countries has increased in the last 2 decades and currently varies from 1 to 20 new cases per 100,000 inhabitants per year.<sup>2</sup> Prevalence rates range between 13 and 49 cases per 100,000 inhabitants.<sup>2</sup> There is a predominance in males with a male-to-female ratio of 3:1.<sup>6</sup> In the Oregon Medicaid population, 784 patients (combined Coordinated Care Organizations and Fee-For-Service populations) were diagnosed with eosinophilic esophagitis in 2021.

In older children and adults with eosinophilic esophagitis, the most commonly reported symptoms are solid food dysphagia, food impaction, and non-swallowing associated chest pain.<sup>2</sup> In younger children and infants, the most frequently reported symptoms are reflux, vomiting, abdominal pain, food refusal, and failure to thrive.<sup>2</sup> Diagnosis is determined by biopsies obtained from different esophageal locations, focusing on areas with endoscopic mucosal abnormalities.<sup>2</sup> Because inflammatory changes in eosinophilic esophagitis are frequently patchy and may not be present in all biopsies, it is recommended that at least 6 biopsies should be obtained from at least 2 different locations, typically in both the distal and proximal halves of the esophagus.<sup>2</sup> The accepted threshold for eosinophil density for the diagnosis of eosinophilic esophagitis is 15 or more eosinophils per high power field (eos/hpf) in esophageal mucosa, taken as the peak concentration in the examined specimens.<sup>2</sup>

The patient-reported Dysphagia Symptom Questionnaire (DSQ) is a 3-question daily diary that has been validated for the measurement of dysphagia frequency and severity in patients with eosinophilic esophagitis.<sup>7,8</sup> Three questions ask whether solid food has been eaten; whether food has gone down slowly or become stuck; and what, if any, measures have been taken to achieve relief.<sup>8</sup> Scores can range from 0 to 84, with higher values indicating more frequent and severe dysphagia.<sup>8</sup> A DSQ score of 0 represents an absence of dysphagia symptoms.<sup>8</sup> The minimal clinically important difference (MCID) has been estimated as a change of 6.5 points in the DSQ score.<sup>8</sup>

No drugs were approved by the FDA for the treatment of eosinophilic esophagitis prior to the approval of dupilumab for this indication.<sup>9</sup> Current therapies for eosinophilic esophagitis include off-label use of proton pump inhibitors (PPIs), off-label use of locally applied corticosteroid preparations, dietary therapy with amino acid formula or empiric food elimination, and endoscopic dilation.<sup>10</sup> While high quality studies are not available to determine the best course of therapy for eosinophilic esophagitis, PPI therapy is usually initiated based on expert consensus, cost, ease of therapy.<sup>11</sup> A systematic review with meta-analysis, including 33 studies involving 619 patients with eosinophilic esophagitis, showed that PPIs led to histological remission (defined as less than 15 eos/hpf) in 50.5% of patients and symptomatic improvement in 60.8% of patients, irrespective of patient age, study design or type of PPI evaluated.<sup>12</sup> Omeprazole 20–40 mg twice daily or PPI equivalent is recommended in adults; in children, 1–2 mg/kg of omeprazole daily or PPI equivalent is recommended.<sup>11</sup> In patients with eosinophilic esophagitis who have an initial response to PPI therapy, the drug should be used long-term to maintain disease remission because discontinuation of therapy

#### Author: Moretz

October 2022

leads to symptomatic and/or histological relapse.<sup>11</sup> The long-term strategy is to use the minimal effective PPI dose to maintain remission.<sup>11</sup> There are no published data on long-term safety of PPIs in patients with eosinophilic esophagitis.<sup>11</sup> The 2020 American Gastroenterological Association (AGA) and the Joint Task Force (JTF) on Allergy-Immunology Practice Parameters clinical guideline for the management of eosinophilic esophagitis suggests the use of PPIs over no treatment as a conditional recommendation based on very low-quality evidence.<sup>13</sup> Based on their longstanding safety profile and ease of administration, patients may prefer to start with PPI therapy and dietary restrictions before initiating a corticosteroid.<sup>13</sup>

When PPI therapy is not effective, inhaled corticosteroid preparations administered locally to the esophagus have been prescribed.<sup>9</sup> Although it has not been approved by the FDA, fluticasone administered locally as a spray from a metered-dose inhaler or a viscous preparation of budesonide (e.g., Pulmicort Respules for inhalation) are primarily used for treatment of eosinophilic esophagitis.<sup>14-17</sup> The efficacy of these medications applied locally to the esophagus in improving symptoms and histologic abnormalities after 2 to 12 weeks of use ranges from 53% to 95%.<sup>15,17</sup> Locally administered viscous budesonide and fluticasone inhaler were directly compared for initial treatment of eosinophilic esophagitis in a small, double-blind randomized clinical trial (RCT).<sup>18</sup> Patients were randomized to receive budesonide twice daily plus placebo (n=56) or fluticasone twice daily plus placebo (n=55).<sup>18</sup> Between baseline and week 8, the mean peak eosinophil count decreased from 73 to 15 eos/hpf and from 77 to 21 eos/hpf in the budesonide and fluticasone groups, respectively (p=0.31).<sup>18</sup> Similarly, there was no significant between-group difference with respect to the change in the DSQ score: the mean DSQ score decreased from 11 to 5 in the budesonide group and from 8 to 4 in the fluticasone group (p = 0.70).<sup>18</sup> Esophageal candidiasis developed in 12% of patients who received budesonide and 16% who received fluticasone; oral thrush was observed in 3% and 2%, respectively.<sup>18</sup> Based on the results of this trial, either corticosteroid is a potential treatment for eosinophilic esophagitis.<sup>18</sup>

The AGA/JTF guideline strongly recommends locally applied corticosteroids over no treatment based on moderate-quality evidence.<sup>13</sup> In short-term studies of 3 months or less, no increased risk of adverse events was observed in patients treated with topically applied corticosteroids compared with placebo (RR, 1; 95% CI, 0.85–1.19), although local viral and fungal infections and very limited description of adrenal suppression have been described in certain populations.<sup>13</sup> A conditional recommendation based on moderate-quality evidence suggests locally applied corticosteroids are preferred over systemic administration of oral corticosteroids, due to the increased risk of adverse events observed with systemic corticosteroid therapy.<sup>13</sup>

#### Efficacy and Safety:

The efficacy and safety of dupilumab in eosinophilic esophagitis were studied in a double-blind, parallel-group, multicenter, phase 3 RCT conducted over 24 weeks in 240 adults and adolescents aged 12 to 17 years of age, weighing at least 40 kg.<sup>1,19</sup> This study has not been published as of June 2022. Dupilumab prescribing information, clinicaltrials.gov, and the recent FDA dupilumab review were consulted for study details.<sup>1,19,20</sup> Because of the brevity of detail, an evidence table could not be constructed. Eligible subjects had 15 or more eos/hpf following a treatment course of a PPI and symptoms of dysphagia as measured by the DSQ.<sup>1</sup> Participants were allocated to 2 treatment groups: Group A with 81 participants (61 adults and 20 pediatric patients) and Group B with 159 participants (107 adults and 52 pediatric patients).<sup>1</sup> Group A evaluated one active dupilumab treatment group of 300 mg once weekly, while Group B had 2 different dosing arms of dupilumab, 300 mg once a week and 300 mg every 2 weeks.<sup>20</sup> At baseline, the groups had similar demographics. Forty-three percent of patients in Group A and 37% of patients in Group B had a history of prior esophageal dilations.<sup>1</sup> The mean baseline DSQ score was 33.6 in Group A and 37.2 in Group B.<sup>1</sup> The co-primary endpoints were: 1) the proportion of patients who achieved peak esophageal interepithelial count of 6 or less eos/hpf at week 24 and 2) the reduction in dysphagia symptoms as measured by a change in the patient-reported DSQ score from baseline to week 24.<sup>19</sup>

In Group A of the trial, 59.5% (n=25) of patients who received dupilumab 300 mg once a week achieved the pre-determined level of reduced eosinophils ( $\leq 6$  eos/hpf) in the esophagus compared to 5.1% (n=2) of the patients who received placebo at 24 weeks (difference: 57; 95% confidence interval (CI), 40.9 to 73.1; p<0.0001).<sup>20</sup> Patients in Group A who received dupilumab experienced an average least square mean (LSM) change of -21.9 points in their 14-day DSQ score at Author: Moretz

week 24 compared to -9.6 points in patients who received placebo (difference: -12.3; 95% CI, -19.1 to -5.5; p=0.004).<sup>20</sup> In Group B, 58.8% (n=47) of patients who received dupilumab 300 mg once a week achieved the pre-determined level of reduced eosinophils ( $\leq$  6 eos/hpf) in the esophagus compared to 5 (6.3%) of patients who received placebo (difference: 53.5; 95% CI, 41.2 to 65.8; p<0.0001).<sup>20</sup> Patients in Group B who received dupilumab 300 mg once a week experienced an average LSM change of -23.8 points in their DSQ score compared to -13.9 points in patients who received placebo (difference: -9.9; 95% CI, -14.8 to -5.0; p<0.0001).<sup>20</sup> Patients in Group B who received dupilumab 300 mg every 2 weeks did not demonstrate significant symptom improvement compared with placebo by week 24 (change in DSQ total score: -14.4 vs. -13.9, respectively; treatment difference of -0.5; 95% CI -5.4 to 4.4; p = 0.84).<sup>20</sup> The proportion of patients who discontinued treatment due to adverse events was 2% in both the dupilumab and placebo groups.<sup>1</sup> The most frequently reported adverse events in patients who received dupilumab were injection site reactions (38%), upper respiratory tract infections (18%), arthralgia (2%), and herpes viral infections (2%).<sup>1</sup>

#### **References:**

- 1. Dupilumab (DUPIXENT) injection, for subcutaneous use. Prescribing Information. Tarrytown, NY; Regeneron Pharmaceutials, Inc. June 2022.
- 2. Lucendo AJ, Molina-Infante J, Arias Á, et al. Guidelines on eosinophilic esophagitis: evidence-based statements and recommendations for diagnosis and management in children and adults. *United European Gastroenterol J.* 2017;5(3):335-358.
- 3. Furuta GT, Katzka DA. Eosinophilic Esophagitis. *N Engl J Med.* 2015;373(17):1640-1648.
- 4. Benninger MS, Strohl M, Holy CE, Hanick AL, Bryson PC. Prevalence of atopic disease in patients with eosinophilic esophagitis. *Int Forum Allergy Rhinol.* 2017;7(8):757-762.
- 5. Hamilton JD, Harel S, Swanson BN, et al. Dupilumab suppresses type 2 inflammatory biomarkers across multiple atopic, allergic diseases. *Clinical and experimental allergy : journal of the British Society for Allergy and Clinical Immunology*. 2021;51(7):915-931.
- 6. Kapel RC, Miller JK, Torres C, Aksoy S, Lash R, Katzka DA. Eosinophilic esophagitis: a prevalent disease in the United States that affects all age groups. *Gastroenterology*. 2008;134(5):1316-1321.
- 7. Dellon ES, Irani AM, Hill MR, Hirano I. Development and field testing of a novel patient-reported outcome measure of dysphagia in patients with eosinophilic esophagitis. *Aliment Pharmacol Ther.* 2013;38(6):634-642.
- 8. Hudgens S, Evans C, Philips E, Hill M. Psychometric validation of the Dysphagia Symptom Questionnaire in eosinophilic esophagitis patients treated with oral budesonide suspension. *Value in Health.* 2015;18(3):A226.
- 9. Nhu QM, Moawad FJ. New Developments in the Diagnosis and Treatment of Eosinophilic Esophagitis. *Curr Treat Options Gastroenterol.* 2019;17(1):48-62.
- 10. Muir A, Falk GW. Eosinophilic Esophagitis: A Review. *Jama*. 2021;326(13):1310-1318.
- 11. Lucendo AJ. Pharmacological treatments for eosinophilic esophagitis: current options and emerging therapies. *Expert review of clinical immunology*. 2020;16(1):63-77.
- 12. Lucendo AJ, Arias Á, Molina-Infante J. Efficacy of Proton Pump Inhibitor Drugs for Inducing Clinical and Histologic Remission in Patients With Symptomatic Esophageal Eosinophilia: A Systematic Review and Meta-Analysis. *Clin Gastroenterol Hepatol.* 2016;14(1):13-22.e11.
- 13. Hirano I, Chan ES, Rank MA, et al. AGA Institute and the Joint Task Force on Allergy-Immunology Practice Parameters Clinical Guidelines for the Management of Eosinophilic Esophagitis. *Gastroenterology*. 2020;158(6):1776-1786.
- 14. Butz BK, Wen T, Gleich GJ, et al. Efficacy, dose reduction, and resistance to high-dose fluticasone in patients with eosinophilic esophagitis. *Gastroenterology*. 2014;147(2):324-333.e325.
- 15. Gupta SK, Vitanza JM, Collins MH. Efficacy and safety of oral budesonide suspension in pediatric patients with eosinophilic esophagitis. *Clin Gastroenterol Hepatol.* 2015;13(1):66-76.e63.

- 16. Schaefer ET, Fitzgerald JF, Molleston JP, et al. Comparison of oral prednisone and topical fluticasone in the treatment of eosinophilic esophagitis: a randomized trial in children. Clin Gastroenterol Hepatol. 2008;6(2):165-173.
- 17. Straumann A, Conus S, Degen L, et al. Budesonide is effective in adolescent and adult patients with active eosinophilic esophagitis. Gastroenterology. 2010;139(5):1526-1537. e1521.
- Dellon ES, Woosley JT, Arrington A, et al. Efficacy of Budesonide vs Fluticasone for Initial Treatment of Eosinophilic Esophagitis in a Randomized 18. Controlled Trial. Gastroenterology. 2019;157(1):65-73.e65.
- 19. Clinicaltrials.gov. Study to Determine the Efficacy and Safety of Dupilumab in Adult and Adolescent Patients With Eosinophilic Esophagitis (EoE). NCT03633617. https://clinicaltrials.gov/ct2/show/NCT03633617?term=NCT03633617&draw=2&rank=1 Accessed June 20, 2022.
- 20. Center for Drug Evaluation and Research. Application Number 761055orig1s040. May 2022. chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/<u>https://www.accessdata.fda.gov/drugsatfda\_docs/nda/2022/761055Orig1s040.pdf</u> Accessed September 6, 2022.

Appendix 1. Proposed Prior Authorization

# **Targeted Immune Modulators for Severe Asthma and Atopic Dermatitis**

#### Goal(s):

- Restrict use of targeted immune modulators to OHP-funded conditions and according to OHP guidelines for use.
- Promote use that is consistent with national clinical practice guidelines and medical evidence.
- Promote use of cost-effective products.

#### Length of Authorization:

Up to 12 months

#### **Requires PA:**

- All targeted immune modulators with indications for severe asthma, atopic dermatitis, or other indications (see **Table 2** below) for both pharmacy and physician-administered claims.
- This PA does not apply to topical agents for inflammatory skin conditions which are subject to separate clinical PA criteria. ٠

#### **Covered Alternatives:**

- Current PMPDP preferred drug list per OAR 410-121-0030 at www.orpdl.org ٠
- Searchable site for Oregon FFS Drug Class listed at www.orpdl.org/drugs/ ٠

High Dose Corticosteroids:     Maximum Dose				
Qvar (beclomethasone)	320 mcg BID			
Pulmicort Flexhaler (budesonide)	720 mcg BID			

### a 1 Maximum Adult Dagaa far Inhalad Cartiagataraida

Alvesco (ciclesonide)	320 mcg BID
Arnuity Ellipta (fluticasone furoate)	200 mcg daily
Armonair (fluticasone propionate)	232 mcg BID
Flovent HFA (fluticasone propionate)	880 mcg BID
Flovent Diskus (fluticasone propionate)	1000 mcg BID
Asmanex Twisthaler (mometasone)	440 mcg BID
Asmanex HFA (mometasone)	400 mcg BID
High Dose Corticosteroid / Long-acting Beta-	Maximum Dose
agonists	
Symbicort (budesonide/formoterol)	320/9 mcg BID
Advair Diskus (fluticasone/salmeterol)	500/50 mcg BID
Advair HFA (fluticasone/salmeterol)	460/42 mcg BID
Wixela Inhub (fluticasone/salmeterol)	500/50 mcg BID
AirDuo Digihaler (fluticasone/salmeterol)	232/14 mcg BID
Airduo RespiClick (fluticasone/salmeterol)	232/14 mcg BID
Breo Ellipta (fluticasone/vilanterol)	200/25 mcg daily
Dulera (mometasone/formoterol)	400/10 mcg BID

## Table 2. FDA-approved Indications and Ages

Generic Name/ BRAND NAME	Eosinophilic Asthma	Moderate to Severe Allergic Asthma	Difficult To Treat, Severe Asthma*	Hypereosinophilic Syndrome (HES)	Eosinophilic Granulomatosis with Polyangiitis (EGPA)	Chronic Rhinosinusitis with Nasal Polyposis (CRSwNP)	Eosinophilic Esophagitis	Atopic Dermatitis (AD)
Abrocitinib CIBINQO								≥18 years
Benralizumab FASENRA	≥12 years							
Dupilumab DUPIXENT	≥6 years (or with oral corticosteroid dependent asthma)					≥18 years	≥12 years and weighing at least 40 kilograms	≥6 months
Mepolizumab NUCALA	≥6 years			≥ 12 years	≥18 years	≥18 years		
Omalizumab XOLAIR		≥6 years				≥18 years		
Reslizumab CINQAIR	≥18 years							
Tezepelumab TEZSPIRE			≥ 12 years					

Tralokinumab ADBRY								≥18 years
Difficult to treat,	severe asthma is	s defined as a	isthma with p	oor symptom control on	high-dose inhaled co	orticosteroid-long ac	ting beta agonis	t (ICS-LABA) or
maintenance oral	corticosteroids	(OCS).						

#### Table 3. Abrocitinib Dosing Adjustments for Atopic Dermatitis

Assessment	Recommended Dose
CYP2C19 Poor Metabolizer	50 mg once daily and may increase to 100 mg once daily after 12 weeks if inadequate response to 50 mg once daily
GFR 30 to 59 mL/min	Start with 50 mg once daily and may increase to 100 mg once daily after 12 weeks if inadequate response to 50 mg once daily
GFR < 30 mL/min	Use is not recommended
Severe hepatic impairment (Child-Pugh Class C)	Use is not recommended

## Table 4. FDA-Approved Dosing for Monoclonal Antibodies Used to Treat Severe Asthma Phenotypes

Generic Name	Brand Name	Asthma Indication	Initial Dose and Administration Route	Maintenance Dose and Administration Route
Benralizumab	FASENRA	Severe asthma with an eosinophilic phenotype	30 mg SC every 4 weeks for the first 3 doses	30 mg SC every 8 weeks
Dupilumab	DUPIXENT	Add on maintenance treatment for moderate to severe asthma with an eosinophilic phenotype or with oral corticosteroid dependent asthma	Pediatrics (6 to 11 yo): An initial loading dose is not necessary Adults and Adolescents ≥ 12 yo : 400 mg to 600 mg SC x 1 dose	Ages 6 – 11 yo (weight 15 to 30 kg) 100 mg SC every 2 weeks OR 300 mg SC every 4 weeks Adults and Adolescents ≥ 12 yo: 200 to 300 mg SC every 2 weeks
Mepolizumab	NUCALA	Severe asthma with an eosinophilic phenotype	N/A	Ages ≥ 6 – 11 yo: 40 mg SC every 4 weeks Ages ≥ 12 yo: 100 mg SC every 4 weeks
Omalizumab	XOLAIR	Moderate to severe persistent asthma and positive allergy testing	N/A	75 to 375 mg SC every 2 to 4 weeks based on weight and serum IgE levels
Reslizumab	CINQAIR	Severe asthma with an eosinophilic phenotype	N/A	3 mg/kg IV infusion every 4 weeks
Tezepelumab	TEZSPIRE	Severe asthma	N/A	210 mg SC every 4 weeks
Abbreviations: Ig	gE = immunog	lobulin E; IV = intravenous;	kg = kilogram; mg = milligram; N/A = Not Applicable; SC = sub	cutaneous; yo = years old

## Table 5. Dupilumab Dosing by Indication

Indication	Dose (Subcutaneous)
Atopic Dermatitis in adults	600 mg followed by 300 mg every 2 weeks
Atopic Dermatitis in pediatric patients (aged 6 to 17 years)	600 mg followed by 300 mg every 4 weeks (15 to 29 kg)
	400 mg followed by 200 mg every 2 weeks (30 to 59 kg)
	600 mg followed by 300 mg every 2 weeks ( $\geq$ 60 kg)
Asthma in adults and adolescents (aged 12 years and older)	400 mg followed by 200 mg every 2 weeks or
	600 mg followed by 300 mg every 2 weeks
Asthma in pediatric patients (aged 6 to 11 years)	100 mg every 2 weeks or 300 mg every 4 weeks (15 to 29 kg)
	200 mg every 2 weeks (≥ 30 kg)
Chronic rhinosinusitis with nasal polyps in adults	300 mg every other week
Eosinophilic esophagitis in adults and adolescents (aged 12 years and	300 mg once a week
older)	

Approval Criteria		
1. What diagnosis is being treated?	Record ICD10 code.	
<ol> <li>Is the diagnosis an OHP-funded diagnosis?</li> <li><u>Note</u>: chronic idiopathic urticaria and mild-to-moderate atopic dermatitis are not OHP-funded conditions</li> </ol>	Yes: Go to #3	<b>No:</b> Pass to RPh. Deny; not funded by the OHP.
<ol> <li>Is the request for an FDA-approved indication and indications (Table 2)?</li> </ol>	Yes: Go to #4	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
4. Is the request for dupilumab?	<b>Yes:</b> Go to # 5	<b>No:</b> Go to #6
<ol> <li>If the request is for dupilumab, is the dose appropriate for the indication (Table 5)?</li> </ol>	Yes: Go to #6	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
6. Is the request for continuation of therapy?	Yes: Go to Renewal Criteria	<b>No:</b> Go to #7

Approval Criteria		
7. Does the patient have a concurrent prescription for EpiPen <sup>®</sup> or equivalent so they are prepared to manage delayed anaphylaxis if it occurs after monoclonal antibody therapy?	Yes: Go to #8	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
<ul> <li>8. Is the diagnosis Severe Atopic Dermatitis (AD)? Severe disease is defined as:<sup>1</sup></li> <li>Having functional impairment as indicated by Dermatology Life Quality Index (DLQI) ≥ 11 or Children's Dermatology Life Quality Index (CDLQI) ≥ 13 (or severe score on other validated tool) AND one or more of the following: <ul> <li>At least 10% body surface area involved, or</li> <li>Hand, foot, face, or mucous membrane involvement</li> </ul> </li> </ul>	Yes: Go to #9	<b>No:</b> Go to #17
9. Is the medication being prescribed by or in consultation with a dermatologist, allergist, or a provider who specializes in care of atopic dermatitis?	<b>Yes:</b> Go to #10	<b>No:</b> Pass to RPh. Deny; medical appropriateness
10. Is the request for abrocitinib?	Yes: Go to #11	<b>No:</b> Go to #16
<ul> <li>11. Are baseline labs (platelets, lymphocytes, lipids) documented?</li> <li>*Note: Abrocitinib therapy should not be initiated if platelet count is &lt; 150,000/mm<sup>3</sup>, absolute lymphocyte count is &lt; 500/mm<sup>3</sup>, absolute neutrophil count is &lt; 1,000/mm<sup>3</sup>, or hemoglobin is &lt; 8 g/dL</li> </ul>	Yes: Go to #12 Document Lab and Date Obtained: Platelets: Lymphocytes: Lipids: Hemoglobin:	<b>No:</b> Pass to RPh. Deny; medical appropriateness
12. Is the patient currently taking other targeted immune modulators or oral immunosuppressants?	<b>Yes:</b> Pass to RPh. Deny; medical appropriateness.	<b>No:</b> Go to #13

Approval Criteria		
13. If the patient has renal or hepatic impairment has the dose been adjusted as described in Table 3?	<b>Yes:</b> Go to #14	<b>No:</b> Pass to RPh. Deny; medical appropriateness
14. Is the patient taking a strong CYP2C19 inhibitor, CYP2C9 inhibitor, CYP2C9 inducer, CYP2C19 inducer, or antiplatelet inhibitor?	Yes: Go to # 15	No: Go to # 16
<ul> <li>15. If the patient is taking a strong CYP2C19 inhibitor (e.g., fluvoxamine, fluoxetine), or CYP2C9 inhibitor (e.g., fluconazole, amiodarone), or CYP2C9 inducer (e.g., rifampin, phenobarbital), or CYP2C19 inducer (carbamazepine), or antiplatelet agent has the abrocitinib dose been adjusted in Table 3 or has the interacting drug been discontinued if necessary?</li> <li>*Note: agents with antiplatelet properties (NSAIDs, SSRIs, etc.) should not be used during the first 3 months of abrocitinib during the first 3 months of therapy.</li> </ul>	Yes: Go to #16	<b>No:</b> Pass to RPh. Deny; medical appropriateness
<ul> <li>16. Does the patient have a documented contraindication or failed trial of the following treatments:</li> <li>Moderate to high potency topical corticosteroid (e.g., clobetasol, desoximetasone, desonide, mometasone, betamethasone, halobetasol, fluticasone, or fluocinonide) AND</li> <li>Topical calcineurin inhibitor (tacrolimus, pimecrolimus) or topical phosphodiesterase (PDE)-4 inhibitor (crisaborole) AND</li> <li>Oral immunomodulator therapy (cyclosporine, methotrexate, azathioprine, mycophenolate mofetil, or oral corticosteroids)?</li> </ul>	Yes: Document drug and dates trialed and intolerances (if applicable): 1(dates) 2(dates) 3(dates) Approve for length of treatment; maximum 6 months.	<b>No</b> : Pass to RPh. Deny; medical appropriateness

Approval Criteria		
<ul> <li>17. Is the request for eosinophilic granulomatosis with polyangiitis (EGPA, formerly known as Churg-Strauss Syndrome) for at least 6 months that is refractory to at least 4 weeks of oral corticosteroid therapy (equivalent to oral prednisone or prednisolone 7.5 to 50 mg per day)?</li> </ul>	Yes: Approve for 12 months. Mepolizumab dose: 300 mg (3 x 100mg syringes) every 4 weeks	<b>No:</b> Go to #18
18. Is the request for the treatment of a patient with hypereosinophilic syndrome (HES) with a duration of 6 months or greater without an identifiable non-hematologic secondary cause?	Yes: Approve for 12 months. Mepolizumab dose: 300 mg (3 x 100mg syringes) every 4 weeks	<b>No:</b> Go to #19
19. Is the request for treatment of nasal polyps?	<b>Yes:</b> Go to #20	No: Go to #22
20. Is the prescriber an otolaryngologist, or allergist who specializes in treatment of chronic rhinosinusitis with nasal polyps?	<b>Yes:</b> Go to #21	<b>No:</b> Pass to RPh. Deny; medical appropriateness
21. Has the patient failed medical therapy with intranasal corticosteroids (2 or more courses administered for 12 to 26 weeks)?	Yes: Approve for 6 months	<b>No:</b> Pass to RPh. Deny; medical appropriateness
22. Is the request for treatment of severe asthma?	<b>Yes:</b> Go to #23	<b>No:</b> Go to #30
23. Is the prescriber a pulmonologist or an allergist who specializes in management of severe asthma?	<b>Yes:</b> Go to #24	<b>No:</b> Pass to RPh. Deny; medical appropriateness

Approval Criteria		
<ul> <li>24. Has the patient experienced one of the following: <ul> <li>at least 4 asthma exacerbations requiring systemic corticosteroids in the previous 12 months OR</li> <li>taking continuous oral corticosteroids at least the equivalent of prednisolone 5 mg per day for the previous 6 months OR</li> <li>at least 1 hospitalization or ≥ 2 emergency department (ED) visits in the past 12 months while receiving a maximally-dosed inhaled corticosteroid (Table 1) AND 2 additional controller drugs (i.e., long-acting inhaled beta-agonist, montelukast, zafirlukast, tiotropium)?</li> </ul> </li> </ul>	Yes: Go to #25 Document number asthma exacerbations over the previous 12 months or oral corticosteroid dose over the previous 6 months or number of hospitalizations or ED visits in the past 12 months This is the baseline value to compare to in renewal criteria.	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
25. Has the patient been adherent to current asthma therapy in the past 12 months?	<b>Yes:</b> Go to #26	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
26. Is the patient currently receiving another monoclonal antibody (e.g., dupilumab, omalizumab, mepolizumab, benralizumab, reslizumab, tezepelumab etc.)?	<b>Yes:</b> Pass to RPh. Deny; medical appropriateness.	No: Go to #27
27. Is the request for tezepelumab?	<b>Yes:</b> Approve for up to 12 months.	No: Go to #28
28. If the claim is for omalizumab, can the prescriber provide documentation of allergic IgE-mediated asthma diagnosis, confirmed by a positive skin test or in vitro reactivity to perennial allergen?	Yes: Approve once every 2- 4 weeks for up to 12 months. Document test and result:	<b>No:</b> Go to #29

Approval Criteria		
<ul> <li>29. If the request is for asthma with an eosinophilic phenotype, can the prescriber provide documentation of one of the following biomarkers:</li> <li>severe eosinophilic asthma, confirmed by blood eosinophil count ≥150 cells/µL OR</li> <li>fractional exhaled nitric oxide (FeNO) ≥25 ppb in the past 12 months?</li> </ul>	Yes: Approve up to 12 months, based on dosing outlined in <b>Table 4</b> . Document eosinophil count ( or FeNO date):	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
30. Is the request for treatment of eosinophilic esophagitis?	<b>Yes:</b> Go to #31	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
<ul> <li>31. Does the patient have a documented contraindication or failed trial of the following treatments:</li> <li>Proton pump therapy for at least 8 weeks OR</li> <li>Corticosteroid therapy with local administration of fluticasone multi-use inhaler for at least 8 weeks (use nasal inhaler and swallow contents of the spray).</li> </ul>	Yes: Document drug and dates trialed and intolerances (if applicable): (dates) Approve for length of treatment; maximum 6 months.	<b>No</b> : Pass to RPh. Deny; medical appropriateness

Renewal Criteria		
<ol> <li>Is the request to renew therapy for eosinophilic granulomatosis with polyangiitis (EGPA), chronic rhinosinusitis with nasal polyps (CRSwNP), hypereosinophilic syndrome (HES), or eosinophilic esophagitis?</li> </ol>	Yes: Go to #2	<b>No:</b> Go to #3
2. Have the patient's symptoms improved with therapy?	Yes: Approve for 12 months	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
3. Is the request to renew therapy for atopic dermatitis?	Yes: Go to #4	<b>No:</b> Go to #5
<ul> <li>4. Have the patient's symptoms improved with targeted immune modulator therapy?</li> <li>at least a 50% reduction in the Eczema Area and Severity Index score (EASI 50) from when treatment started OR</li> <li>at least a 4-point reduction in the Dermatology Life Quality Index (DLQI) from when treatment started OR</li> <li>at least a 2-point improvement on the Investigators Global Assessment (IGA) score?</li> </ul>	Yes: Approve for 12 months	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
5. Is the patient currently taking an inhaled corticosteroid and 2 additional controller drugs (i.e., long-acting inhaled beta-agonist, montelukast, zafirlukast, tiotropium)?	Yes: Go to #6	<b>No:</b> Pass to RPh. Deny; medical appropriateness.
6. Has the number of emergency department (ED) visits or hospitalizations in the last 12 months been reduced from baseline, or has the patient reduced their systemic corticosteroid dose by ≥50% compared to baseline?	Yes: Approve for up to 12 months.	<b>No:</b> Pass to RPh. Deny; medical appropriateness.

1. Oregon Health Evidence Review Commission. Coverage Guidance and Reports. <u>http://www.oregon.gov/oha/hpa/csi-herc/pages/index.aspx\_Accessed March 1, 2022.</u>

- 2. National Institute for Health and Care Excellence (NICE) Guidance. Mepolizumab for Treating Severe Eosinophilic Asthma. <a href="https://www.nice.org.uk/guidance/ta671February2021">https://www.nice.org.uk/guidance/ta671February2021</a>.
- 3. National Institute for Health and Care Excellence (NICE) Guidance. Dupilumab for Treating Severe Asthma with Type 2 Inflammation. https://www.nice.org.uk/guidance/ta751 December 2021
- 4. Global Initiative for Asthma. Global strategy for asthma management and prevention (2021 update). 2021. https://ginasthma.org/wp-content/uploads/2021/05/GINA-Main-Report-2021-V2-WMS.pdf

 P&T Review:
 10/22 (DM) 6/22 (DM); 8/21 (DM); 10/20 (KS),7/19; 7/18; 7/16

 Implementation:
 1/1/23; 7/1/22; 9/1/21; 8/19/19, 8/15/18, 8/16

**Proton Pump Inhibitors (PPIs)** 

### Goals:

- Promote PDL options
- Restrict PPI use to patients with OHP-funded conditions

## **Requires PA:**

- Preferred PPIs beyond 68 days' duration
- Non-preferred PPIs

### **Covered Alternatives:**

- Current PMPDP preferred drug list per OAR 410-121-0030 at <u>www.orpdl.org</u>
- Searchable site for Oregon FFS Drug Class listed at <u>www.orpdl.org/drugs/</u>
- Individual components for treatment of *H. pylori* that are preferred products

Approval Criteria		
1. What diagnosis is being treated?	Record ICD10 code.	
2. Is the request for a preferred PPI?	Yes: Go to #5	<b>No:</b> Go to #3
3. Is the treating diagnosis an OHP-funded condition (see <b>Table</b> )?	<b>Yes:</b> Go to #4	<b>No:</b> Pass to RPh; deny, not funded by OHP.

<ul> <li>4. Will the prescriber consider changing to a preferred PPI product?</li> <li>Message: Preferred products are reviewed for comparative effectiveness and safety by the Pharmacy and Therapeutics (P&amp;T) Committee.</li> </ul>	<b>Yes:</b> Inform prescriber of covered alternatives.	No: Go to #5
<ul> <li>5. Has the patient already received 68 days of PPI therapy in past year for either of the following diagnoses:</li> <li>Esophagitis or gastro-esophageal reflux disease with or without esophagitis (K20.0-K21.9); or</li> <li>Current <i>H. pylori</i> infection?</li> </ul>	Yes: Go to #8	<b>No:</b> Go to #6
6. Does the patient have recurrent, symptomatic erosive esophagitis that has resulted in previous emergency department visits or hospitalization?	Yes: Approve for 1 year	<b>No:</b> Go to #7

<ul> <li>7. Does the patient have a history of gastrointestinal ulcer or bleed and have one or more of the following risk factors? <ul> <li>a. Age 65 years or older</li> <li>b. Requires at least 3 months of continuous daily:</li> <li>i. Anticoagulant;</li> <li>ii. Aspirin (all doses) or non-selective NSAID; or</li> <li>iii. Oral corticosteroid</li> </ul> </li> </ul>	Yes: Approve for 1 year	No: Go to #8
<ul> <li>8. Are the indication, daily dose and duration of therapy consistent with criteria outlined in the <b>Table</b>?</li> <li>Message: OHP-funded conditions are listed in the <b>Table</b>.</li> </ul>	Yes: Approve for recommended duration.	No: Pass to RPh. Deny; medical appropriateness or not funded by OHP Message: Patient may only receive 8 weeks of continuous PPI therapy. RPh may approve a quantity limit of 30 doses (not to exceed the GERD dose in the <b>Table</b> ) over 90 days if time is needed to taper off PPI. Note: No specific PPI taper regimen has proven to be superior. H2RAs may be helpful during the taper. Preferred H2RAs are available without PA.

## Table. Dosing and Duration of PPI Therapy for OHP Funded Conditions.

Funded OHP Conditions*	Maximum Duration	Maximum Daily Dose
<u>GERD:</u> Esophageal reflux (K219) Esophagitis (K208-K210)	8 weeks* *Treatment beyond 8 weeks is not funded by OHP.	Dexlansoprazole 30 mg Dexlansoprazole Solu Tab 30 mg Esomeprazole 20 mg Lansoprazole 15 mg Omeprazole 20 mg Pantoprazole 40 mg Rabeprazole 20 mg
H. pylori Infection (B9681)	2 weeks	Dexlansoprazole 60 mg Dexlansoprazole 30 mg† Esomeprazole 40 mg Lansoprazole 60 mg Omeprazole 40 mg Pantoprazole 80 mg Rabeprazole 40 mg
Duodenal Ulcer (K260-K269)	4 weeks	
Gastric Ulcer (K250-K259)	8 weeks	
Peptic ulcer site unspecified (K270-K279)	12 weeks	
Achalasia and cardiospasm (K220) Barrett's esophagus (K22.70; K22.71x) Dyskinesia of esophagus (K224) Esophageal hemorrhage (K228) Eosinophilic Esophagitis (K200) Gastritis and duodenitis (K2900-K2901; K5281) Gastroesophageal laceration-hemorrhage syndrome (K226) Gastrojejunal ulcer (K280-K289) Malignant mast cell tumors (C962) Multiple endocrine neoplasia [MEN] type I (E3121) Neoplasm of uncertain behavior of other and unspecified endocrine glands (D440; D442; D449) Perforation of Esophagus (K223) Stricture & Stenosis of Esophagus (K222) Zollinger-Ellison (E164)	1 year	

\*A current list of funded conditions is available at: <u>https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Prioritized-List.aspx</u>

## <u>† Dexlansoprazole SoluTab 30 mg (given as 2 SoluTabs at once) are not recommended for healing of erosive esophagitis.</u>

*P&T / DUR Review:* 10/22 (DM); 10/20 (KS), 5/17(KS); 1/16; 5/15; 3/15; 1/13; 2/12; 9/10; 3/10; 12/09; 5/09; 5/02; 2/02; 9/01, 9/98

Implementation: 1/1/23; 11/1/20; 6/8/16; 2/16; 10/15; 7/15; 4/15; 5/13; 5/12; 1/11; 4/10; 1/10; 9/06, 7/06, 10/04, 3/04