

Clinical Policy: Dupilumab (Dupixent)

Reference Number: PA.CP.PHAR.336

Effective Date: 01/18

Last Review Date: 04/19

[Coding Implications](#)

[Revision Log](#)

Description

Dupilumab (Dupixent®) is an interleukin-4 receptor alpha antagonist.

FDA Approved Indication(s)

Dupixent is indicated:

- For the treatment of patients aged 12 years and older with moderate-to-severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. Dupixent can be used with or without topical corticosteroids
- As an add-on maintenance treatment in patients with moderate-to-severe asthma aged 12 years and older with an eosinophilic phenotype or with oral corticosteroid dependent asthma

Policy/Criteria

It is the policy of health plans affiliated with Pennsylvania Health and Wellness® that dupilumab (Dupixent) is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Atopic Dermatitis (must meet all):

1. Diagnosis of atopic dermatitis;
 2. Prescribed by or in consultation with a dermatologist;
 3. Age \geq 12 years;
 4. Failure of all of the following (a, b, and c) unless contraindicated or clinically significant adverse effects are experienced:
 - a. Two formulary medium to very high potency topical corticosteroids, each used \geq 2 weeks;
 - b. One non-steroidal topical therapy*: topical calcineurin inhibitor (e.g., tacrolimus 0.03% ointment and pimecrolimus 1% cream) or Eucrisa®, each used for \geq 4 weeks;

** These agents may require prior authorization*

 - c. One of the following systemic agents: corticosteroids, azathioprine, methotrexate, mycophenolate mofetil, or cyclosporine;
5. Dose does not exceed the following (a or b):
 - a. Initial (one-time) dose: 600 mg;
 - b. Maintenance dose: 300 mg every other week.

Approval duration: 16 weeks

B. Asthma (must meet all):

1. Diagnosis of asthma and one of the following (a or b):
 - a. Absolute blood eosinophil count \geq 150 cells/mcL within the past 3 months;
 - b. Currently receiving maintenance treatment with systemic glucocorticoids and has received treatment for at least 4 weeks;
2. Prescribed by or in consultation with a/an allergist, immunologist, or pulmonologist;

3. Age \geq 12 years;
4. Member has experienced symptoms $>$ 2 days per week, nighttime awakening at least once per week, limitation with normal activity, need for short-acting beta-agonist $>$ 2 days per week, FEV1 or peak flow 60-80% of predicted or personal best or any of the validated questionnaire scores: ATAQ: 1-2; ACQ: \geq 1.5; or ACT: 16-19 requiring any of the following despite adherent use of controller therapy (i.e., moderate- to high-dose inhaled corticosteroid (ICS) plus either a long-acting beta₂ agonist (LABA) or leukotriene modifier (LTRA) if LABA contraindication/intolerance):
 - a. Oral/systemic corticosteroid treatment (or increase in dose if already on oral corticosteroid);
 - b. Urgent care visit or hospital admission;
 - c. Intubation;
5. Dupixent is prescribed concomitantly with an ICS plus either a LABA or LTRA;
6. Dupixent will not be used concomitantly with Cinqair[®], Fasenra[®], Nucala[®], or Xolair[®];
7. Dose does not exceed the following (a or b):
 - a. Initial (one-time) dose: 600 mg;
 - b. Maintenance dose: 300 mg every other week.

Approval duration: 6 months

C. Other diagnoses/indications: Refer to PA.CP.PMN.53

II. Continued Approval

A. Atopic Dermatitis (must meet all):

1. Currently receiving medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or Continuity of Care policy applies;
2. Member is responding positively to therapy (e.g. reduction in itching/scratching);
3. If request is for a dose increase, new dose does not exceed 300 mg given every other week.

Approval duration: 12 months

B. Asthma (must meet all):

1. Currently receiving medication via Pennsylvania Health and Wellness benefit or member has previously met all initial approval criteria or Continuity of Care policy applies;
2. Demonstrated adherence to asthma controller therapy that includes an ICS plus either a LABA or LTRA;
3. Member is responding positively to therapy (*see Appendix D*);
4. If request is for a dose increase, new dose does not exceed 300 mg every other week.

Approval duration: 12 months

C. Other diagnoses/indications (must meet 1 or 2):

1. Currently receiving medication via Pennsylvania Health and Wellness benefit and documentation supports positive response to therapy or Continuity of Care policy applies;

Approval duration: Duration of request or 6 months (whichever is less); or

2. Refer to PA.CP.PMN.53

Background

Description/Mechanism of Action:

Dupilumab is a human monoclonal IgG4 antibody that inhibits interleukin-4 (IL-4) and interleukin-13 (IL-13) signaling by specifically binding to the IL-4Ra subunit shared by the IL-4 and IL-13 receptor complexes. Dupilumab inhibits IL-4 signaling via the Type I receptor and both IL-4 and IL-13 signaling through the Type II receptor.

III. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

FDA: Food and Drug Administration

ICS: inhaled corticosteroid

LABA: long-acting beta₂ agonist

LTRA: leukotriene modifier

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent for all relevant lines of business and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
ATOPIC DERMATITIS		
Very High Potency Topical Corticosteroids		
augmented betamethasone 0.05% (Diprolene [®] AF) cream, ointment, gel, lotion	Apply topically to the affected area(s) BID	varies
clobetasol propionate 0.05% (Temovate [®]) cream, ointment, gel, solution		
diflorasone diacetate 0.05% (Maxiflor [®] , Psorcon E [®]) cream, ointment		
halobetasol propionate 0.05% (Ultravate [®]) cream, ointment		
High Potency Topical Corticosteroids		
augmented betamethasone 0.05% (Diprolene [®] AF) cream, ointment, gel, lotion	Apply topically to the affected area(s) BID	varies
diflorasone 0.05% (Florone [®] , Florone E [®] , Maxiflor [®] ,Psorcon E [®]) cream		
fluocinonide acetonide 0.05% (Lidex [®] , Lidex E [®]) cream, ointment, gel, solution		

triamcinolone acetonide 0.5% (Aristocort [®] , Kenalog [®]) cream, ointment		
Medium Potency Topical Corticosteroids		
desoximetasone 0.05% (Topicort [®]) cream, ointment, gel	Apply topically to the affected area(s) BID	varies
fluocinolone acetonide 0.025% (Synalar [®]) cream, ointment		
mometasone 0.1% (Elocon [®]) cream, ointment, lotion		
triamcinolone acetonide 0.025%, 0.1% (Aristocort [®] , Kenalog [®]) cream, ointment		
Other Classes of Agents		
Protopic [®] (tacrolimus), Elidel [®] (pimecrolimus)	Children ≥ 2 years and adults: Apply a thin layer topically to affected skin BID. Treatment should be discontinued if resolution of disease occurs.	varies
Eucrisa [®] (crisaborole)	Apply to the affected areas BID	varies
cyclosporine	3-6mg/kg/day PO BID	300 mg/day
azathioprine	1-3mg/kg/day PO once daily	Weight-based
methotrexate	7.5-25mg/wk PO once weekly	25 mg/week
mycophenolate mofetil	1-1.5 PO BID	3 g/day
Systemic corticosteroids (e.g. prednisone, prednisolone, triamcinolone)	PO, IM, or parenteral; dose varies	varies
ASTHMA		
ICS (medium – high dose)		
Qvar [®] (beclomethasone)	> 200 mcg/day 40 mcg, 80 mcg per actuation 1-4 actuations BID	4 actuations BID
budesonide (Pulmicort [®])	> 400 mcg/day 90 mcg, 180 mcg per actuation 2-4 actuations BID	2 actuations BID
Alvesco [®] (ciclesonide)	> 160 mcg/day 80 mcg, 160 mcg per actuation 1-2 actuations BID	2 actuations BID
Aerospan [®] (flunisolide)	> 320 mcg/day 80 mcg per actuation 2-4 actuations BID	2 actuations BID
Flovent [®] (fluticasone propionate)	> 250 mcg/day 44-250 mcg per actuation 2-4 actuations BID	2 actuations BID

Arnuity Ellipta® (fluticasone furoate)	200 mcg/day 100 mcg, 200 mcg per actuation 1 actuation QD	1 actuation QD
Asmanex® (mometasone)	>220 mcg/day HFA: 100 mcg, 200 mcg per actuation Twisthaler: 110 mcg, 220 mcg per actuation 1-2 actuations QD to BID	2 inhalations BID
LABA		
Serevent® (salmeterol)	50 mcg per dose 1 inhalation BID	1 inhalation BID
Combination products (ICS + LABA)		
Dulera® (mometasone/formoterol)	100/5 mcg, 200/5 mcg per actuation 2 actuations BID	4 actuations per day
Breo Ellipta® (fluticasone/vilanterol)	100/25 mcg, 200/25 mcg per actuation 1 actuation QD	1 actuation QD
Advair® (fluticasone/ salmeterol)	Diskus: 100/50 mcg, 250/50 mcg, 500/50 mcg per actuation HFA: 45/21 mcg, 115/21 mcg, 230/21 mcg per actuation 1 actuation BID	1 actuation BID
fluticasone/salmeterol (Airduo RespiClick®)	55/13 mcg, 113/14 mcg, 232/14 mcg per actuation 1 actuation BID	1 actuation BID
Symbicort® (budesonide/formoterol)	80 mcg/4.5 mcg, 160 mcg/4.5 mcg per actuation 2 actuations BID	2 actuations BID
LTRA		
montelukast (Singulair®)	4 to 10 mg PO QD	10 mg per day
zafirlukast (Accolate®)	10 to 20 mg PO BID	40 mg per day
zileuton ER (Zyflo® CR)	1200 mg PO BID	2400 mg per day
Zyflo® (zileuton)	600 mg PO QID	2400 mg per day
Oral corticosteroids		
dexamethasone (Decadron®)	0.75 to 9 mg/day PO in 2 to 4 divided doses	Varies
methylprednisolone (Medrol®)	40 to 80 mg PO in 1 to 2 divided doses	Varies
prednisolone (Millipred®, Orapred ODT®)	40 to 80 mg PO in 1 to 2 divided doses	Varies
prednisone (Deltasone®)	40 to 80 mg PO in 1 to 2 divided doses	Varies

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): known hypersensitivity to Dupixent or any of its excipients
- Boxed warning(s): none reported

Appendix D: General Information

- The Phase III pivotal studies (SOLO 1 and SOLO 2) of Dupixent showed no significant difference in clinical outcomes between dosing of Dupixent every week and every other week for the treatment of atopic dermatitis.
- During clinical trials (LIBERTY ASTHMA QUEST), among patients with a baseline blood eosinophil count of < 150 per cubic millimeter, the exacerbation rate was similar with dupilumab and with placebo: 0.47 (95% CI, 0.36 to 0.62) with lower-dose dupilumab and 0.51 (95% CI, 0.35 to 0.76) with matched placebo, and 0.74 (95% CI, 0.58 to 0.95) with higher-dose dupilumab and 0.64 (95% CI, 0.44 to 0.93) with matched placebo.
- Positive response to therapy for asthma may include reduction in exacerbations or corticosteroid dose, improvement in forced expiratory volume over one second since baseline, or reduction in the use of rescue therapy.
- Lab results for blood eosinophil counts can be converted into cells/mcL using the following unit conversion calculator: <https://www.fasenrahcp.com/m/fasenra-eosinophil-calculator.html>

IV. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Moderate-to-severe atopic dermatitis	Initial dose of 600 mg via subcutaneous injection, followed by 300 mg subcutaneously given every other week	300 mg every other week
Moderate-to-severe asthma	Initial dose of 400 mg SC followed by 200 mg SC every other week; or Initial dose of 600 mg SC followed by 300 mg SC every other week For patients requiring concomitant oral corticosteroids or with co-morbid moderate-to-severe atopic dermatitis for which Dupixent is indicated, start with an initial dose of 600 mg SC followed by 300 mg SC every other week	300 mg every other week

V. Product Availability

Pre-filled syringe with needle shield for injection: 200 mg/1.4 mL, 300 mg/2 mL

VI. References

1. Dupixent Prescribing Information. Tarrytown, NY: Regeneron Pharmaceuticals, Inc.; March 2019. Available at: www.dupixent.com. Accessed March 21, 2019.

2. Simpson EL, Bieber T, Guttman-Yassky E, et al. Two phase 3 trials of dupilumab versus placebo in atopic dermatitis. *New England Journal of Medicine*. 2016; 375: 2335-48.
3. Eichenfield F, Tom WL, Chamlin SL, et al. Guidelines of Care for the Management of Atopic Dermatitis. *J Am Acad Dermatol*. 2014 February; 70(2): 338–351.
4. Leshem YA, Hajar T, Hanifin JM, et al. What the Eczema Area and Severity Index score tells us about the severity of atopic dermatitis: an interpretability study. *British Journal of Dermatology* 2015; 172(5):1353-1357.
5. National Asthma Education and Prevention Program: Expert panel report III: Guidelines for the diagnosis and management of asthma. Bethesda, MD: National Heart, Lung, and Blood Institute, 2007. (NIH publication no. 08-4051). Available at <http://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines>. Accessed November 13, 2018.
6. Global Initiative for Asthma: Global strategy for asthma management and prevention (2018 update). Available at: <https://ginasthma.org/2018-gina-report-global-strategy-for-asthma-management-and-prevention/>. Accessed November 13, 2018.

Coding Implications

Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
N/A	

Reviews, Revisions, and Approvals	Date	Approval Date
References were reviewed and updated.	02/18	
1Q 2019 annual review: criteria added for new FDA indication: moderate-to-severe asthma; references reviewed and updated.	01/19	
Updated atopic dermatitis with new FDA-approved age extension to patients 12 years of age and older; Removed additional information detailing “Low Potency Topical Corticosteroids” from Appendix B; references reviewed and updated.	04/19	