Omalizumab (Xolair®)

NDC CODE(S) 50242-0040-XX XOLAIR 150MG Solution Reconstituted (GENENTECH)
50242-0214-XX XOLAIR 75MG/0.5ML Solution Prefilled Syringe (GENENTECH)
50242-0215-XX XOLAIR 150MG/ML Solution Prefilled Syringe (GENENTECH)

DESCRIPTION

Omalizumab is a recombinant DNA-derived humanized IgG1κ monoclonal antibody which selectively binds to immunoglobulin E (IgE). High serum levels of IgE are found in individuals with allergic disease and asthma. By binding with omalizumab, circulating IgE is inhibited from binding with high-affinity Fc receptors (FcεRI) on the surfaces of mast cells and basophils, key participants in allergic inflammation. This has been shown to diminish the release of mediators of the allergic response, decrease asthma exacerbations in individuals reactive to perennial aeroallergens and reduce the number of FcεRI receptors on basophils in atopic allergic hypersensitive individuals.

POLICY

- Omalizumab for the treatment of the following is considered ***medically necessary*** if the medical appropriateness criteria are met: **(See Medical Appropriateness below.)**
  - Asthma
  - Urticaria
  - Nasal Polyps
  - Management of Immune Checkpoint Inhibitor- Related Toxicity
  - Systemic Mastocytosis
- Omalizumab for the treatment of other conditions/diseases is considered ***investigational.***

MEDICAL APPROPRIATENESS

INITIAL APPROVAL CRITERIA

- Patient is at least 18 years of age (unless otherwise specified); **AND**

Universal Criteria
- Must not be used in combination with another monoclonal antibody (e.g., benralizumab, mepolizumab, reslizumab, etc.); **AND**

Moderate-to-severe persistent allergic asthma
- Patient is at least 6 years of age; **AND**
- Will not be used for treatment of acute bronchospasm, status asthmaticus, or allergic conditions (other than indicated); **AND**
- Patient has a positive skin test or in vitro reactivity to a perennial aero-allergen; **AND**
- Patient must weigh between 20 kg (44 lbs.) and 150 kg (330 lbs.); **AND**
- Patient has a serum total IgE level, measured before the start of treatment, of either:
  - ≥ 30 IU/mL and ≤ 700 IU/mL in patients age ≥ 12 years; **OR**
  - ≥ 30 IU/mL and ≤ 1300 IU/mL in patients age 6 to <12 years**; AND**
- Patient has documented ongoing symptoms of moderate-to-severe asthma* with a minimum (3) month trial on previous combination therapy including medium- or high-dose inhaled corticosteroids **PLUS** another controller medication (e.g., long-acting beta-2 agonist, leukotriene receptor antagonist, theophylline, etc.); **AND**
- Baseline measurement of at least one of the following for assessment of clinical status:
  - Use of inhaled rescue medication

- Use of inhaled or systemic corticosteroids
- Reported disease severity symptoms (e.g., number of hospitalizations, ER visits, unscheduled visits to healthcare provider due to condition, asthma attacks, chest tightness or heaviness, coughing or clearing throat, difficulty taking deep breath or difficulty breathing out, shortness of breath, sleep disturbance, night wakening, or symptoms upon awakening, tiredness, wheezing/heavy breathing/fighting for air, etc.)
- Forced expiratory volume in 1 second (FEV_1)

Chronic idiopathic urticaria (CIU)

- Patient is at least 12 years of age; **AND**
- The underlying cause of the patient's condition is NOT considered to be any other allergic condition(s) or other form(s) of urticaria; **AND**
- Patient is avoiding triggers (e.g., NSAIDs, etc.); **AND**
- Documented baseline score from an objective clinical evaluation tool, such as: urticaria activity score (UAS7), angioedema activity score (AAS), Dermatology Life Quality Index (DLQI), Angioedema Quality of Life (AE-QoL), or Chronic Urticaria Quality of Life Questionnaire (CU-Q2oL); **AND**
- Patient had an inadequate response to a one or more month trial on previous therapy with scheduled dosing of a second-generation H1-antihistamine product**; **AND**
- Patient had an inadequate response to a one or more month trial on previous therapy with scheduled dosing of at least one of the following:
  - Up-dosing/dose advancement (up to 4-fold) of a second generation H1-antihistamine**
  - Add-on therapy with a leukotriene antagonist (e.g., montelukast, zafirlukast, etc.)
  - Add-on therapy with another H1-antihistamine**
  - Add-on therapy with a H2-antagonist (e.g. ranitidine, etc.)
  - Add-on therapy with cyclosporine

Note: renewal will require submission of a current (within 30 days) score from an objective clinical evaluation tool (i.e., UAS7, AAS, DLQI, AE-QoL or CU-Q2oL).

Nasal Polyps

- Patient has bilateral symptomatic sino-nasal polyposis; **AND**
- Patient has failed at least 8 weeks of daily intranasal corticosteroid therapy; **AND**
- Patient does NOT have antrochoanal polyps; **AND**
- Patient does NOT have nasal septal deviation that would occlude at least one nostril; **AND**
- Other causes of nasal congestion/obstruction have been ruled out (e.g., acute sinusitis, nasal infection or upper respiratory infection, rhinitis medicamentosa, tumors, infections, granulomatosis, etc.); **AND**
- Physician has assessed baseline disease severity utilizing an objective measure/tool

Management of Immune Checkpoint Inhibitor-Related Toxicity

- Patient has been receiving therapy with an immune checkpoint inhibitor (e.g. nivolumab, pembrolizumab, atezolizumab, avelumab, durvalumab, cemiplimab, ipilimumab, etc.); **AND**
- Patient has refractory and severe (i.e., grade 3: intense or widespread, constant, limiting self-care activities of daily living or sleep) pruritis; **AND**
- Patient has an increased serum IgE level above the upper limit of normal of the laboratory reference value

Systemic Mastocytosis

- Used for the prevention of one of the following:
  - Chronic mast cell mediator-related cardiovascular (e.g., pre-syncope, tachycardia, etc.) or pulmonary (e.g., wheezing, throat-swelling, etc.) symptoms insufficiently controlled by conventional therapy (e.g., H1 or H2 blockers or corticosteroids); **OR**
  - Unprovoked anaphylaxis; **OR**

  - Hymenoptera or food-induced anaphylaxis in patients with a negative test for specific IgE antibodies or a negative skin test; **OR**
- Used to improve tolerance while on immunotherapy (i.e., venom immunotherapy [VIT])

***Components of severity for classifying asthma as moderate may include any of the following (not all inclusive):**
• Daily symptoms • Nighttime awakenings > 1x/week but not nightly • SABA use for symptom control occurs daily • Some limitation to normal activities • Lung function (percent predicted FEV_1) >60%, but <80% • Exacerbations requiring oral systemic corticosteroids are generally more frequent and intense relative to mild asthma
*Components of severity for classifying asthma as severe may include any of the following (not all inclusive):
• Symptoms throughout the day • Nighttime awakenings, often 7x/week • SABA use for symptom control occurs several times daily • Extremely limited in normal activities • Lung function (percent predicted FEV_1) <60% • Exacerbations requiring oral systemic corticosteroids are generally more frequent and intense relative to moderate asthma
**H1 Antihistamine Products (not all inclusive)
• fexofenadine • loratadine • desloratadine • cetirizine • levocetirizine • clemastine • diphenhydramine • chlorpheniramine • hydroxyzine • cyproheptadine • brompheniramine • triprolidine • dexchlorpheniramine • carbinoxamine

RENEWAL CRITERIA

- Patient continues to meet the universal and other indication-specific relevant criteria identified in Initial Approval Criteria; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include the following: symptoms of anaphylaxis (bronchospasm, hypotension, syncope, urticaria, and/or angioedema), malignancy, symptoms similar to serum sickness (fever, arthralgia, and rash), parasitic (helminth) infection, eosinophilic conditions (e.g. vasculitic rash, worsening pulmonary symptoms, cardiac complications, and/or neuropathy, especially upon reduction of oral corticosteroids), etc.; **AND**

Moderate-to-severe persistent allergic asthma

- Patient must weigh between 20 kg (44 lbs.) and 150 kg (330 lbs.); **AND**
- Treatment has resulted in clinical improvement as documented by one or more of the following:
  - Decreased utilization of rescue medications; **OR**
  - Decreased frequency of exacerbations (defined as worsening of asthma that requires increase in inhaled corticosteroid dose or treatment with systemic corticosteroids); **OR**
  - Improvement in lung function (increase in percent predicted FEV1 or PEF) from pretreatment baseline; **OR**
  - Reduction in reported disease severity symptoms as evidenced by decreases in frequency or magnitude of one or more of the following symptoms:
    - Hospitalizations, ER visits, unscheduled visits to healthcare provider
    - Asthma attacks
    - Chest tightness or heaviness
    - Coughing or clearing throat
    - Difficulty taking deep breath or difficulty breathing out
    - Shortness of breath
    - Sleep disturbance, night wakening, or symptoms upon awakening
    - Tiredness
    - Wheezing/heavy breathing/fighting for air; AND
- Patient is periodically checked to reassess the need for continued therapy based upon the patient's disease severity and level of asthma control

Chronic idiopathic urticaria (CIU)

- Treatment with Xolair (omalizumab) has resulted in clinical improvement as documented by improvement from baseline using objective clinical evaluation tools such as the urticaria activity score (UAS7), angioedema activity score (AAS), Dermatology Life Quality Index (DLQI), Angioedema Quality of Life (AE-QoL), or Chronic Urticaria Quality of Life Questionnaire(CU-Q2oL); **AND**
- Submitted current UAS7, AAS, DLQI, AE-QoL, or Cu-Q2oL was recorded within the past 30 days.

Nasal Polyps

- Disease response as indicated by improvement in signs and symptoms compared to baseline in one or more of the following: nasal/obstruction symptoms, improvement of sinus opacifications as assessed by CT-scans and/or an improvement on a disease activity scoring tool (e.g., nasal polyposis score (NPS), nasal congestion (NC) symptom severity score, sinonasal outcome test-22 (SNOT-22), etc.)

Management of Immune Checkpoint Inhibitor-Related Toxicity

- May not be renewed

Systemic Mastocytosis

- Disease response as indicated by improvement in signs and symptoms compared to baseline or a decreased frequency of exacerbations

DOSAGE/ADMINISTRATION

INDICATION	DOSE
Allergic Asthma	75 to 375 mg administered subcutaneously by a health care-provider every 2 or 4 weeks. Determine dose (mg) and dosing frequency by serum total IgE level (IU/mL), measured before the start of treatment, and body weight (kg). See tables below
Chronic idiopathic urticaria	150 or 300 mg administered subcutaneously by a health care provider every 4 weeks. Dosing is not dependent on serum IgE (free or total) level or body weight.
Nasal Polyps	75 to 600 mg administered subcutaneously by a health care provider every 2 or

	4 weeks. Determine dose (mg) and dosing frequency by serum total IgE level (IU/mL), measured before the start of treatment, and body weight (kg). See table below.
Management of Immune Checkpoint Inhibitor-Related Toxicity & Systemic Mastocytosis	150 or 300 mg administered subcutaneously by a health care provider every 4 weeks. Dosing is not dependent on serum IgE (free or total) level or body weight.

Asthma Omalizumab Doses Administered Every 4 Weeks (mg) in patients ≥ 12 years

Pre-treatment serum IgE (IU/mL)	Body weight (kg)			
	30 to 60	> 60 to 70	> 70 to 90	> 90 to 150
≥ 30 to 100	150	150	150	300
> 100 to 200	300	300	300	See the following table.
> 200 to 300	300	See the following table.	See the following table.	See the following table.

Asthma Omalizumab Doses Administered Every 2 Weeks (mg) in patients ≥ 12 years

Pre-treatment serum IgE (IU/mL)	Body weight (kg)			
	30 to 60	> 60 to 70	> 70 to 90	> 90 to 150
> 100 to 200	See previous table.	See previous table.	See previous table.	225
> 200 to 300	See previous table.	225	225	300
> 300 to 400	225	225	300	Do not dose.
> 400 to 500	300	300	375	Do not dose.
> 500 to 600	300	375	Do not dose.	Do not dose.
> 600 to 700	375	Do not dose.	Do not dose.	Do not dose

Asthma Omalizumab Doses Administered Every 2 or 4 Weeks (mg) for Pediatric Patients Who Begin Xolair Between the Ages of 6 to <12 Years

Pre- treatment	Dosing	Body Weight (kg)

IgE (IU/mL)	Freq. (weeks)	20-25	>25-30	>30-40	>40-50	>50-60	>60-70	>70-80	>80-90	>90-125	>125-150
30-100	4	75	75	75	150	150	150	150	150	300	300
>100-200		150	150	150	300	300	300	300	300	225	300
>200-300		150	150	225	300	300	225	225	225	300	375
>300-400		225	225	300	225	225	225	300	300	Do Not Dose	
>400-500		225	300	225	225	300	300	375	375		
>500-600		300	300	225	300	300	375	Do Not Dose			
>600-700		300	225	225	300	375	Do Not Dose				
>700-900	2	225	225	300	375	Do Not Dose					
>900-1100		225	300	375	Do Not Dose						
>1100-1200		300	300	Do Not Dose							
>1200-1300		300	375	Do Not Dose							

Nasal Polyps Omalizumab Doses Administered Every 2 or 4 Weeks (mg)									
Pre-treatment IgE (IU/mL)	Dosing Freq. (weeks)	Body Weight (kg)							
		>30-40	>40-50	>50-60	>60-70	>70-80	>80-90	>90-125	>125-150
30-100	4	75	150	150	150	150	150	300	300
>100-200		150	300	300	300	300	300	450	600
>200-300		225	300	300	450	450	450	600	375

>300-400		300	450	450	450	600	600	450	525
>400-500		450	450	600	600	375	375	525	600
>500-600		450	600	600	375	450	450	600	
>600-700		450	600	375	450	450	525		
>700-800	2	300	375	450	450	525	600		
>800-900		300	375	450	525	600			
>900-1000		375	450	525	600	Do Not Dose			
>1000-1100		375	450	600					
>1100-1200		450	525	600					
>1200-1300		450	525						
>1300-1500		525	600						

LENGTH OF AUTHORIZATION

Coverage will be provided for six months and may be renewed; Management of Immune Checkpoint Inhibitor-Related Toxicity may NOT be renewed.

DOSAGE LIMITS

Max Units (per dose and over time) [HCPCS Unit]:

Allergic Asthma
- 90 billable units every 14 days

Nasal Polyps
- 120 billable units every 14 days

All other indications
- 60 billable units every 28 days

APPLICABLE TENNESSEE STATE MANDATE REQUIREMENTS

BlueCross BlueShield of Tennessee's Medical Policy complies with Tennessee Code Annotated Section 56-7-2352 regarding coverage of off-label indications of Food and Drug Administration (FDA) approved drugs when the off-label use is recognized in one of the statutorily recognized standard reference compendia or in the published peer-reviewed medical literature.

IMPORTANT REMINDER

We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.

ADDITIONAL INFORMATION

For appropriate chemotherapy regimens, dosage information, contraindications, precautions, warnings, and monitoring information, please refer to one of the standard reference compendia (e.g., the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) published by the National Comprehensive Cancer Network®, Drugdex Evaluations of Micromedex Solutions at Truven Health, or The American Hospital Formulary Service Drug Information).

SOURCES

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9. Referenced with permission from the NCCN Drugs and Biologics Compendium (NCCN Compendium®) Omalizumab. National Comprehensive Cancer Network, 2020. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc. To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed December 2020.
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EFFECTIVE DATE 6/2/21

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