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Reslizumab (Cinqair) [Medicare]

Clinical Policy Bulletins | Medical Clinical Policy Bulletins

Number: 0907m

Commercial CPB (0907.html) | Medicare CPB

Medicare Part B Step Therapy Criteria

Cinqair, for the indication listed below:

- Severe asthma

  Is not covered for new starts, unless the member meets ANY of the following:

  1. Inadequate response to a trial of Fasenra, Nucala, or Xolair
  2. Intolerable adverse event to Fasenra, Nucala, or Xolair
  3. Fasenra, Nucala, or Xolair is contraindicated for the member.

Policy

Note: Requires Precertification:

Policy History

Effective: 01/01/2022

Next Review: 05/26/2022

Definitions

Additional Information

Clinical Policy Bulletin Notes

Precertification of reslizumab (Cinqair) is required of all Aetna participating providers and members in applicable plan designs. For precertification of reslizumab, call (866) 752-7021 or fax (888) 267-3277.

Note: Site of Care Utilization Management Policy applies for reslizumab (Cinqair). For information on site of service, see Utilization Management Policy on Site of Care for Specialty Drug Infusions (https://www.aetna.com/health-care-professionals/utilization-management/drug-infusion-site-of-care-policy.html).

I. Criteria for Initial Approval

Aetna considers reslizumab (Cinqair) medically necessary for the treatment of asthma when *all* of the following criteria are met:

A. Member is 18 years of age or older; and
B. Member meets *either* of the following criteria:

1. Member has baseline blood eosinophil count of at least 400 cells per microliter; *or*
2. Member is dependent on systemic corticosteroids; *and*

C. Member has inadequate asthma control (e.g., hospitalization or emergency medical care visit within the past year) despite current treatment with *both* of the following medications at optimized doses:

1. Inhaled corticosteroid; *and*
2. Additional controller (long acting beta2-agonist, leukotriene modifier, or sustained-release theophylline); *and*

D. Member will not use Cinqair as monotherapy; *and*
E. Member will not use Cinqair concomitantly with other biologics indicated for asthma (e.g., Dupixent, Fasenra, Nucala, Xolair).

Aetna considers all other indications as experimental and investigational (for additional information, see Experimental and Investigational and Background sections).

II. **Continuation of Therapy**

Aetna considers continuation of reslizumab (Cinqair) therapy medically necessary for treatment of asthma when *all* of the following criteria are met:

A. Member is 18 years of age or older; *and*
B. Asthma control has improved on Cinqair treatment as demonstrated by a reduction in the frequency and/or severity of symptoms and exacerbations; *and*
C. Member will not use Cinqair as monotherapy; *and*
D. Member will not use Cinqair concomitantly with other biologics indicated for asthma (e.g., Dupixent, Fasenra, Nucala, Xolair).

Note: If the member is a current smoker or vaper, they should be counseled on the harmful effects of smoking and vaping on pulmonary conditions and available smoking and vaping cessation options.

Dosage and Administration

Reslizumab is available as Cinqair for injection as 100 mg/10 mL (10 mg/mL) solution in single-use vials. Cinqair is for intravenous (IV) infusion only. Do not administer as an IV push or bolus.

The recommended dosage regimen is 3 mg/kg once every 4 weeks administered by IV infusion over 20-50 minutes.

Discontinue the infusion immediately if the individual experiences a severe systemic reaction, including anaphylaxis.

Source: Teva Respiratory, 2020

Experimental and Investigational

Aetna considers the use of reslizumab with mepolizumab (Nucala) or omalizumab (Xolair) experimental and investigational because the safety and effectiveness of these combinations has not been established.

Aetna considers reslizumab experimental and investigational for the following including other eosinophilic conditions (not an all-inclusive list) because its effectiveness for these indications has not been established:

- Acute bronchospasm
- Allergic rhinitis
- Atopic dermatitis
- Atopic eczema
- Chronic obstructive pulmonary disease
- Chronic rhinosinusitis
- Chronic urticaria
- Churg-Strauss syndrome
- Eosinophil gastroenteritis
- Eosinophilic esophagitis
- Eosinophilic granulomatosis with polyangiitis
- Food allergy
- Hyper-eosinophilic syndrome
- Loiasis
- Nasal polyposis
- Status asthmaticus.

Background

U.S. Food and Drug Administration (FDA)-Approved Indications

- Cinqair is indicated for the add-on maintenance treatment of patients with severe asthma aged 18 years and older with an eosinophilic phenotype.

  Limitations of Use:

  - Not for treatment of other eosinophilic conditions
  - Not for the relief of acute bronchospasm or status asthmaticus.

Reslizumab is available as Cinqair (Teva Respiratory, LLC) which is an interleukin-5 antagonist monoclonal antibody (IgG4 kappa). IL-5 is the major cytokine responsible for the growth and differentiation, recruitment, activation, and survival of eosinophils. Reslizumab binds to IL-5 with a dissociation constant of 81 pM, inhibiting the bioactivity of IL-5 by blocking its binding to the alpha chain of the IL-5 receptor complex expressed on the eosinophil surface. Inflammation is an important component in the pathogenesis of asthma. Multiple cell types (e.g., mast cells, eosinophils, neutrophils, macrophages, lymphocytes) and mediators (e.g., histamine, eicosanoids, leukotrienes, cytokines) are involved in inflammation. Reslizumab, by inhibiting IL-5 signaling, reduces the production and survival of eosinophils; however, the mechanism of reslizumab action in asthma has not been definitively established (Teva Respiratory, 2020). Reslizumab bind circulating IL-5 leading to apoptosis of eosinophils (GINA, 2020).

Cinqair carries a black box warning risk for anaphylaxis. Anaphylaxis occurred with Cinqair infusion in 0.3% of patients in placebo-controlled studies. Warnings and precautions that are included in the Prescribing Information include malignancy, reduction in corticosteroid dosage, and parasitic (helminth) infection. In placebo-controlled clinical studies, 6/1028 (0.6%) patients receiving 3 mg/kg Cinqair had at least 1 malignant neoplasm reported compared to 2/730 (0.3%) patients in the placebo group. The observed malignancies in Cinqair-treated patients were diverse in nature and without clustering of any particular tissue type. The majority of malignancies were diagnosed within less than six months of exposure to Cinqair. No clinical studies have been conducted to assess reduction of maintenance corticosteroid dosages following administration of Cinqair. The label states to not discontinue systemic or inhaled corticosteroids abruptly upon initiation of therapy with Cinqair. Reductions in corticosteroid dose, if appropriate, should be gradual and performed under the supervision of a physician. Eosinophils may be involved in the immunological response to some helminth infections. Patients with known parasitic infections were excluded from participation in clinical studies. It is unknown if Cinqair will influence the immune response against parasitic infections. The label states to treat patients with pre-existing helminth infections before initiating Cinqair. If

patients become infected while receiving treatment with Cinqair and do not respond to anti-helminth treatment, discontinue treatment with Cinqair until infection resolves (Teva Respiratory, 2020).

The most common adverse reaction (incidence greater than or equal to 2%) includes oropharyngeal pain.

Asthma

Despite extensive health initiatives for enhancing the management of patients with asthma, epidemiological studies suggested that many patients still have uncontrolled disease. There is an urgent need for improved care in patient with moderate and severe asthma. Tiotropium, the 1st long-term anti-muscarinic compound, was approved for asthma treatment in 2014; newly developed inhaled corticosteroids as well as beta2-mimetics and inhaler types will enhance the therapeutic options to treat this disease better. Drugs aimed at inhibiting cytokines (e.g., daclizumab, mepoluzimab, reslizumab) appear promising in the treatment of asthma (Gillissen, 2015).

Reslizumab is a humanized interleukin (IL)-5 antagonist monoclonal antibody produced by recombinant DNA technology in murine myeloma non-secreting 0 (NS0) cells. It reduces severe asthma attacks by reducing the levels of blood eosinophils that contributes to the development of asthma. The safety and effectiveness of reslizumab were established in several randomized, placebo-controlled trials in patients with severe asthma on currently available therapies (including high-dose inhaled corticosteroids). Reslizumab or a placebo was administered to patients every 4 weeks as an add-on asthma treatment. Compared with placebo, patients with severe asthma receiving reslizumab had fewer asthma attacks, and a longer time to the first attack. In addition, treatment with reslizumab resulted in a significant improvement in lung function, as measured by forced expiratory volume in 1 second (FEV1).

In a randomized, placebo-controlled study, Castro and colleagues (2011) evaluated the effect of reslizumab in patients with eosinophilic asthma that is poorly controlled with high-dose inhaled corticosteroid. Patients were randomly assigned to receive infusions of reslizumab at 3.0 mg/kg (n = 53) or placebo (n = 53) at baseline and at weeks 4, 8, and 12, with

stratification by baseline Asthma Control Questionnaire (ACQ) score less than or equal to 2 or greater than 2. The primary effectiveness measure was the difference between the reslizumab and placebo groups in the change in ACQ score from baseline to end of therapy (week 15 or early withdrawal). Mean changes from baseline to end of therapy in ACQ score were -0.7 in the reslizumab group and -0.3 in the placebo group (p = 0.054) and in FEV1 were 0.18 and -0.08 L, respectively (p = 0.002). In those patients with nasal polyps, the changes in ACQ score were -1.0 and -0.1, respectively (p = 0.012). Median percentage reductions from baseline in sputum eosinophils were 95.4 % and 38.7 %, respectively (p = 0.007); 8 % of patients in the reslizumab group and 19 % of patients in the placebo group had an asthma exacerbation (p = 0.083). The most common adverse events (AEs) with reslizumab were fatigue, nasopharyngitis, and pharyngo-laryngeal pain. The authors concluded that reslizumab was generally well-tolerated, and patients receiving reslizumab showed significantly greater reductions in sputum eosinophils, improvements in airway function, and a trend toward greater asthma control than those receiving placebo.

Castro and associates (2015) assessed the safety and effectiveness of reslizumab in patients with inadequately controlled, moderate-to-severe asthma. These researchers performed 2 duplicate, multi-center, double-blind, parallel-group, randomized, placebo-controlled phase III trials. Both trials enrolled patients (aged 12 to 75 years) from 128 clinical research centers in study 1 and 104 centers in study 2 from Asia, Australia, North America, South America, South Africa, and Europe, whose asthma was inadequately controlled by medium-to-high doses of inhaled corticosteroid based therapy and who had blood eosinophils of 400 cells per µL or higher and 1 or more exacerbations in the previous year. Patients were randomly assigned (1:1) to receive either intravenous reslizumab (3.0 mg/kg) or placebo every 4 weeks for 1 year by computerized central randomization. Patients and investigators were masked to treatment assignment during the study. Each patient received a specific volume of study drug (reslizumab or matching placebo) on the basis of the patient's body weight and randomly assigned treatment group. Additionally, the sponsor's clinical personnel involved in the study were masked to the study drug identity until the database was locked for analysis and the treatment assignment revealed. The primary outcome was the annual frequency of clinical asthma exacerbations and was analyzed by

intention-to-treat. These investigators evaluated safety outcomes in the patients who had received 1 or more dose of the drug: study 1 was carried out between April 12, 2011 and March 3, 2014; while study 2 was performed between March 22, 2011 and April 9, 2014. Of 2,597 patients screened, 953 were randomly assigned to receive either reslizumab (n = 477 [245 in study 1 and 232 in study 2]) or placebo (n = 476 [244 and 232]). In both studies, patients receiving reslizumab had a significant reduction in the frequency of asthma exacerbations (study 1: risk ratio [RR] 0.50 (95 % confidence interval [CI]: 0.37 to 0.67]; study 2: 0.41 [0.28 to 0.59]; both p < 0·0001) compared with those receiving placebo. Common AEs on reslizumab were similar to placebo. The most common AEs were worsening asthma symptoms (127 [52 %] for placebo and 97 [40 %] for reslizumab in study 1; 119 [51 %] for placebo and 67 [29 %] for reslizumab for study 2), upper respiratory tract infections (32 [13 %] and 39 [16 %]; 16 [7 %] and 8 [3 %]), and nasopharyngitis (33 [14 %] and 28 [11 %]; 56 [24 %] and 45 [19 %]); 2 patients in the reslizumab group had anaphylactic reactions; both responded to standard treatment at the study center and resolved, and the patients were withdrawn from the study. The authors concluded that these findings support the use of reslizumab in patients with asthma and elevated blood eosinophil counts who are inadequately controlled on inhaled corticosteroid-based therapy.

On March 23, 2016, the Food and Drug Administration (FDA) approved reslizumab (Cinqair) for use with other asthma medicines for the maintenance treatment of severe asthma in patients aged 18 years and older. Cinqair is approved for patients who have a history of severe asthma attacks despite receiving their current asthma medicines. Reslizumab is not indicated for the treatment of other eosinophilic conditions and relief of acute bronchospasm or status asthmaticus. Reslizumab can cause serious AEs including anaphylaxis, which can be life-threatening. The most common AEs in clinical trials for reslizumab included anaphylaxis, cancer, and muscle pain.

In pivotal trials, an eosinophil phenotype was defined as a peripheral blood absolute eosinophil count of 400/microL or greater, although the threshold required for persons on systemic glucocorticoids is not clear. In those studies, reslizumab reduced asthma exacerbations by approximately 50 percent (Wenzel, 2020).

Per Gobal Initiative for Asthma (GINA, 2020), in severe asthma, participants in randomized controlled trials may not be representative of patients seen in clinical practice. An example provided includes a registry study which found that over 80 percent of patients with severe asthma would have been excluded from recent studies evaluating biologic therapy.

A 2020 GINA update on the "Global Strategy for Asthma Management and Prevention" recommends, as a treatment option, an add-on anti-interleukin-5 treatment for persons with severe eosinophilic asthma that is uncontrolled on Step 4, which is low dose ICS-formoterol as maintenance and reliever therapy (adults and adolescents), or medium dose ICS-LABA maintenance plus as-needed SABA (adults, adolescents and children) and Step 5, which may include high dose ICS-LABA plus oral corticosteroids. The GINA panel recommends that patients with persistent symptoms or exacerbations despite correct inhaler technique and good adherence with Step 4 treatment, and in whom other controller options have been considered, should be referred to a specialtist with expertise in investigation and management of severe asthma.

Allergic Rhinitis

Tan and colleagues (2016) stated that the development of biological therapies has rapidly progressed during the last few years, and major advances were reported for the treatment of allergic diseases, such as atopic dermatitis, allergic rhinitis, urticaria, food allergy, and asthma. These investigators reviewed biologicals targeting the type 2 immune response involving Th2 cells, type 2 innate lymphoid cells, natural killer T cells, mast cells, basophils, and epithelial cells, such as IL-4, IL-5, IL-13, IL-31, tumor necrosis factor alpha (TNF-α), and thymic stromal lymphopoietin (TSLP). The biologicals that have been currently approved for asthma are omalizumab targeting IgE and reslizumab and mepolizumab targeting IL-5. Many other monoclonal antibodies are currently in various phases of clinical development. The new biological therapies for allergic diseases will eventually be tailored to the endotypes of these diseases and the identification of novel biomarkers. The authors noted that further development of novel biologicals for the treatment of allergic diseases and asthma will be possible upon improved understanding of mechanisms of allergic diseases. They concluded that

further refinement of endotypes of allergen-specific and non-specific type 2 immune response and related inflammatory mediators is needed for optimal treatment of allergic diseases.

Chronic Rhinosinusitis

Tsetsos and colleagues (2018) noted that monoclonal antibodies have been proposed as a novel therapy in patients suffering from chronic rhinosinusitis with nasal polyposis (CRSwNP). In a systematic review, these investigators evaluated their safety and efficacy. A literature search was performed in Medline, Web of Science, the Cochrane Library and multiple trial registries followed by extensive hand-searching for the identification of relevant studies. Only randomized controlled trials (RCTs) comparing the use of monoclonal antibodies with placebo or another therapy in adult patients with CRSwNP were included. Anti-immunoglobulin E (IgE) therapy with omalizumab was assessed in 2 studies, anti-IL-5 therapy in 3 studies (1 reslizumab, 2 mepolizumab) and finally anti-IL-4 and anti-IL-13 therapy in only 1. With the exception of 1 study, biologic therapy was proven to be effective in reducing total nasal endoscopic polyp score (TPS) in treatment as compared to placebo groups. Monoclonal antibodies brought about improvement in several other outcomes, such as opacification in computed tomography (CT), QOL measures, nasal airflow, olfaction and type 2 helper T-cell (Th2) associated biomarkers. Overall, the use of these agents was deemed safe and well-tolerated. The authors concluded that this was the 1st systematic review showing encouraging results for the use of all t3 main categories of monoclonal antibodies in CRSwNP patients and highlighted the need for further well-designed RCTs with larger sample sizes.

Furthermore, UpToDate reviews on “Clinical presentation, diagnosis, and treatment of nasal obstruction” (Bhattacharyya, 2016) and “Chronic rhinosinusitis: Management” (Hamilos, 2016) do not list reslizumab as a therapeutic option.

Chronic Urticaria

Maurer and colleagues (2018) stated that chronic urticaria (CU) is a group of common and debilitating conditions containing both chronic spontaneous urticaria (CSU) and chronic inducible urticarias (CIndU)

including cold urticaria (ColdU). While anti-histamines and omalizumab are effective treatments for both CSU and ColdU, many patients show insufficient response to either or both of these treatments, and additional and better therapies are needed. These investigators reported on the case of a patient with chronic spontaneous urticaria and cold urticarial, who benefited from treatment with reslizumab.

Furthermore, an UpToDate review on “Chronic urticaria: Treatment of refractory symptoms” (Khan, 2017) does not mention reslizumab as a therapeutic option.

Eosinophilic Esophagitis

Pediatric eosinophilic esophagitis is an inflammatory condition associated with marked eosinophil accumulation in the mucosal tissues of the esophagus. Interleukin-5 is central to eosinophil maturation and release from the bone marrow, and their subsequent accumulation, activation and persistence in the tissues. In this regard, reslizumab, a humanized monoclonal antibody with potent interleukin-5 (IL-5) neutralizing effects, represents a potential treatment for eosinophilic diseases (Walsh, 2010).

In a double-blind, randomized, placebo-controlled trial, Spergel et al (2012) evaluated the effect of reslizumab in children and adolescents with eosinophilic esophagitis. Patients with symptom severity scores of moderate or worse and an esophageal biopsy specimen with 24 or more intra-epithelial eosinophils per high-power field were randomly assigned to receive infusions of 1, 2, or 3 mg/kg reslizumab or placebo at weeks 0, 4, 8, and 12. The co-primary effectiveness measures were changes in peak esophageal eosinophil count and the physician's global assessment score at week 15 (end of therapy). A total of 226 patients received study medication. Median reductions from baseline to the end of therapy in peak esophageal eosinophil counts were 59 %, 67 %, 64 %, and 24 % in the 1, 2, and 3 mg/kg reslizumab (all $p < 0.001$) and placebo groups, respectively. All treatment groups, including the placebo group, showed improvements in physician's global assessment scores; and the differences between the reslizumab and placebo groups were not statistically significant. The most common AEs in the reslizumab groups were cough, headache, nasal congestion, and upper respiratory tract infection; 1 patient in each reslizumab group and 2 in the placebo group

had serious AEs; none was considered related to the study medication. The authors concluded that reslizumab significantly reduced intra-epithelial esophageal eosinophil counts in children and adolescents with eosinophilic esophagitis. However, improvements in symptoms were observed in all treatment groups and were not associated with changes in esophageal eosinophil counts.

Furthermore, an UpToDate review on "Treatment of eosinophilic esophagitis" (Bonis and Furuta, 2016) lists reslizumab as an experimental treatment.

Pesek and Gupta (2018) stated that although eosinophilic esophagitis (EoE) is rare, its incidence and prevalence is increasing. Eosinophilic esophagitis is characterized by eosinophilic inflammation of the esophagus causing gastro-intestinal (GI)symptoms such as abdominal pain, vomiting, reflux, dysphagia, and food impactions. If untreated, remodeling and fibrosis of the esophagus can occur and stricture formation may result. Current therapeutic options are limited to food-restriction diets or medications including proton pump inhibitors (PPIs) or swallowed corticosteroids. Significant progress has been made in understanding the underlying mechanisms of EoE allowing for development of drugs that target specific points in EoE pathways. Investigation of these drugs is early with few controlled studies, but many showed promise as future treatments. These investigators provided an up-to-date discussion of current therapies and investigational drugs for EoE. Studies used in this review were retrieved from PubMed; ongoing or completed clinical trials were obtained through clinicaltrials.gov and review of the PharmaProjects database. The authors concluded that multiple therapeutic targets have been identified and several have shown efficacy. Work is needed to define appropriate trial outcome measures. Collaboration between government agencies, patient advocacy groups, and investigator-led consortia is critical for completing new clinical trials, which should pave the way for new therapies in clinical practice. Reslizumab is one of the keywords used in this study.

Food Allergy

Fiocchi and associates (2017) noted that severe cases of food allergy account for the majority of the burden in terms of risks, quality of life (QOL), and resource expenditure. The traditional approach to these forms has been strict avoidance. More recently, oral immunotherapy (OIT) has gained a role in their management. However, in severe food allergies OIT is often infeasible. Case reports, observational, and prospective studies have recently proposed different approaches to severe food allergy. The majority of them include the use of biologics. Omalizumab has been the most studied drug for severe food allergies, and its role as adjuvant treatment to OIT is well-established. Interest has been raised on other biologics, such as dupilumab, reslizumab, and mepolizumab. Toll-like receptor agonists, and gene therapy using adeno-associated virus coding for omalizumab are promising alternatives. The authors concluded that recent studies are influencing the clinical practice. They reviewed the modifications of the clinical approach to severe food allergies so far available, and indicated the possible evolutions of treatment with biologics in severe food allergies.

Nasal Polyposis

Rivero and Liang (2017) determined the role of biologic therapy on sino-nasal symptoms and objective outcomes in CRSwNP. PubMed, Ovid Medicine, and Cochrane Central were reviewed from 2000 to 2015. Inclusion criteria included English-language studies containing original data on biologic therapy in CRSwNP patients with reported outcome measures; 2 investigators independently reviewed all manuscripts and performed quality assessment and quantitative meta-analysis using validated tools. Of 495 abstracts identified, 7 studies fulfilled eligibility: 4 RCTs, 1 case-control, and 2 case series. Outcome measures included nasal polyp score (NPS, n = 6), CT score (n = 5), and symptom scores (n = 5). Meta-analysis was performed on 5 studies: Anti-IL5 therapy (mepolizumab/reslizumab) and anti-IgE therapy (omalizumab) demonstrated a standard mean difference (SMD) of NPS improvement of -0.66 (95 % CI: -1.24 to -0.08) and -0.75 (95 % CI: -1.93 to 0.44), respectively, between biologic therapy and placebo. Quality assessment indicated a low-to-moderate risk of bias for the RCTs. The authors concluded that biologic therapies may prove beneficial in the treatment of recalcitrant nasal polyposis in select populations. In meta-analysis, anti-IL5 therapy showed a reduction in nasal polyp score. Anti-IgE therapy

reduced nasal polyp score in patients with severe co-morbid asthma. Moreover, they stated that additional high-level evidence is needed to evaluate clinical efficacy.

Miscellaneous Indications

There are clinical trials on the use of reslizumab for the treatment of various diseases/conditions including eosinophilic esophagitis, and loiasis.

Simon et al (2007) noted that clinical trials had shown that anti-IL-5 therapy resulted in a rapid decrease in peripheral blood eosinophil numbers. Moreover, improvement of symptoms in patients with lymphocytic variants of hyper-eosinophilic syndromes, in eosinophilic esophagitis and chronic rhinitis with nasal polyposis has been observed. In contrast, in patients with bronchial asthma or atopic eczema, anti-IL-5 therapy showed only moderate or no clinical effects. The authors concluded that future studies will have to identify those eosinophilic diseases in which anti-IL-5 antibodies are effective, perhaps with the help of newly developed biomarkers.

Walsh (2009) stated that reslizumab inhibited eosinophilia in several animal models; reductions in airway hyperactivity and broncho-constriction were also observed. Clinical trials for reslizumab have been completed in a small number of patients with asthma, nasal polyposis, hyper-eosinophilic syndrome (HES) and eosinophil gastroenteritis (EG). Eosinophil depletion was observed in all trials, but clinical responses were often limited, particularly in patients with asthma. Furthermore, some patients exhibited rebound of disease to levels greater than baseline. At the time of publication, phase II/III and phase III trials were ongoing in patients with eosinophilic esophagitis, and a phase II trial was ongoing in patients with asthma. Reslizumab is a potentially effective and well-tolerated treatment for EG, EE, HES and eosinophilic polyposis, although more trials are needed to understand the underlying mechanism of disease rebound.

Corren (2011) examined clinical trials of anti-IL-5 antibody therapy that have been conducted in patients with asthma, hyper-eosinophilic syndromes, eosinophilic esophagitis, atopic dermatitis, Churg-Strauss

syndrome, and nasal polyposis. Recent trials of anti-IL-5 in patients with severe asthma refractory to existing therapies and prominent sputum eosinophilia experienced significant reductions in asthma exacerbations. Studies in patients with hyper-eosinopihilic syndromes have shown that IL-5 antagonism allowed significant reductions in systemic corticosteroid doses while maintaining or improving blood eosinophil counts and symptoms. In children and adults with eosinophilic esophagitis, anti-IL-5 treatment reduced eosinophil numbers in esophageal tissue; however, it is uncertain whether these findings are predictive of clinical improvement. Clinical studies of individuals with atopic dermatitis did not support effectiveness of anti-IL-5 in either reducing allergen patch test intensity or symptoms of chronic dermatitis. In small trials in both Churg Strauss syndrome and nasal polyposis, anti-IL-5 showed promise but larger numbers of patients with these conditions are needed to validate these findings. The authors concluded that anti-IL-5 is effective in treating patients with severe asthma and sputum eosinophilia and hyper-eosinophilic syndromes. Moreover, they stated that larger controlled trials with appropriate end-points are needed to evaluate the role of anti-IL-5 in other eosinophilic disorders.

Varricchi and colleagues (2016) noted that eosinophils are the major source of IL-5 and highly express its receptor (IL-5Rα) on their surface. Clinical trials evaluating monoclonal antibodies to IL-5 (mepolizumab and reslizumab) and IL-5Rα (benralizumab) have been or are underway in patients with eosinophilic asthma, eosinophilic granulomatosis with polyangiitis (EGPA) and chronic obstructive pulmonary disease (COPD). Overall, targeting IL-5/IL-5Rα is associated with a marked decrease in blood and sputum eosinophilia, the number of exacerbations and improvement of some clinical parameters in adult patients with severe eosinophilic asthma. Pilot studies suggested that mepolizumab might be a glucocorticoid-sparing treatment in patients with EGPA. A preliminary study found that benralizumab did not reduce the exacerbations and did modify lung function in patients with eosinophilic COPD. The authors concluded that IL-5/IL-5Rα-targeted treatments offer promises to patients with eosinophilic respiratory disorders (e.g., COPD and EGPA).

CPT Codes / HCPCS Codes / ICD-10 Codes

Information in the [brackets] below has been added for clarification purposes. Codes requiring a 7th character are represented by "+":

Code	Code Description
Other CPT codes related to the CPB:	
96365 - 96366	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug)
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes
99407	intensive, greater than 10 minutes
HCPCS codes covered if selection criteria are met :	
J2786	Injection, reslizumab, 1 mg
Other HCPCS codes related to the CPB:	
J2182	Injection, mepolizumab, 1 mg. [Not covered in combination with reslizumab]
J2357	Injection, omalizumab, 5 mg. [Not covered in combination with reslizumab]
ICD-10 codes covered if selection criteria are met:	
J45.20 - J45.998	Asthma
ICD-10 codes not covered for indications listed in the CPB (not all-inclusive):	
B74.3	Loiasis
D72.1	Eosinophilia
J30.1 - J30.89	Allergic rhinitis
J32.0 - J32.9	Chronic sinusitis
J33.0 - J33.9	Nasal polyp
J44.1	Chronic obstructive pulmonary disease with acute exacerbation
J44.9	Chronic obstructive pulmonary disease, unspecified
J98.01	Acute bronchospasm
K20.0	Eosinoiphilic esophagitis
K52.81	Eosinophilic gastritis or gastroenteritis
L20.0 - L20.9	Atopic dermatitis
L30.0 - L30.9	Other and unspecified dermatitis

Code	Code Description
L50.8	Other urticaria [chronic urticaria]
M30.1	Polyarteritis with lung involvement [Churg-Strauss]
T78.1	Other adverse food reactions, not elsewhere classified

The above policy is based on the following references:

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