



# EGPA TREATMENT

## FREQUENTLY ASKED QUESTIONS

### Determining Disease Activity and Severity

#### Q: What indicates active disease in EGPA?

In EGPA, active disease is indicated by new, persistent, or worsening clinical signs or symptoms as well as the presence of increased blood eosinophils and inflammatory biomarkers such as ESR and CRP. In patients experiencing a relapse, symptoms may be similar to what was seen in prior disease activity.

#### Q: What are the indicators of severe and nonsevere disease in EGPA?

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| <b>Severe</b>    | <ul style="list-style-type: none"><li>• Life- or organ-threatening manifestations</li><li>• Examples of symptoms seen in severe disease include alveolar hemorrhage, glomerulonephritis, CNS vasculitis, cardiac involvement, mesenteric ischemia, limb/digit ischemia</li></ul>      |
| <b>Nonsevere</b> | <ul style="list-style-type: none"><li>• Absence of life- or organ-threatening manifestations</li><li>• Examples of symptoms seen in non-severe disease include rhinosinusitis, asthma, mild systemic symptoms, uncomplicated cutaneous disease, mild inflammatory arthritis</li></ul> |

#### Q: What is the Five-Factor Score (FFS) and how is it applied when determining treatment course in EGPA?

The Five-Factor Score (FFS) was developed as a prognostic tool by the French Vasculitis Study Group in 1996 based on outcomes from a group of 342 patients with systemic necrotizing vasculitis. The FFS is primarily used to determine the risk of death or serious complications in patients with vasculitis.

Some clinicians use the FFS to differentiate between severe and nonsevere disease in EGPA. A score of  $\geq 1$  may indicate the presence of severe EGPA and the need for treatment with cytotoxic therapy.

There are limitations to the use of the FFS in guiding treatment and determining disease severity. For example, CNS involvement is not included in the updated FFS but is generally considered to require treatment with cytotoxic therapy. Additionally, there is limited experience in using the FFS to guide the use of newer EGPA therapies.

## Induction in Active, Severe EGPA

### **Q: What is the recommended treatment for active, severe EGPA?**

Recommended treatment for active, severe EGPA is high-dose daily IV or oral glucocorticoids, often in combination with cyclophosphamide or rituximab.

### **Q: What are some considerations for choosing cyclophosphamide or rituximab in induction therapy?**

Cyclophosphamide should be considered in patients with multi-organ involvement, active cardiac involvement, or patients who are ANCA-negative and have severe neurologic or gastrointestinal manifestations of disease.

Rituximab can be considered in patients who are ANCA-positive for whom cyclophosphamide would be relatively contraindicated (e.g., gonadal toxicity, prior exposure to cyclophosphamide).

## Induction in Active, Nonsevere EGPA

### **Q: What is the recommended induction treatment for active, nonsevere EGPA?**

For active, nonsevere EGPA, treatment must be individualized to each patient's disease course. ACR Guidelines recommend treating most patients with more than just glucocorticoids. Mepolizumab is particularly effective for patients with relapsing or refractory disease especially with asthmatic or eosinophilic features. For nonsevere disease with predominantly vasculitic features, methotrexate, azathioprine, or mycophenolate mofetil can be used in combination with glucocorticoids.

### **Q: Is there a role for cytotoxic therapies in nonsevere EGPA?**

In patients who are ANCA-positive with non-severe vasculitis and disease not well controlled by other agents (methotrexate, azathioprine, or mycophenolate mofetil), rituximab can be considered as an alternative treatment option. Cyclophosphamide is the least preferred agent for patients with non-severe EGPA due to toxicity concerns.

# Maintenance of Remission

## **Q: What are recommended treatments for remission maintenance in severe disease?**

Patients receiving induction treatment with cyclophosphamide should be transitioned to methotrexate, azathioprine, or mycophenolate mofetil.

Mepolizumab can be considered as a treatment in patients with severe disease to improve eosinophilia-driven symptoms such as asthma or rhinosinusitis and decrease chronic corticosteroid exposure.

Continuation of rituximab for maintenance treatment is not recommended due to lack of available evidence. However, rituximab could be considered in patients with contraindications to other treatment options.

## **Q: How long should glucocorticoids be used to maintain remission in EGPA?**

The dose and duration of glucocorticoid treatment for EGPA is highly individualized. The majority of patients require some daily low dose of prednisone in order to maintain control of asthma and allergy symptoms and to prevent symptoms of adrenal insufficiency.

# Management of Relapse

## **Q: In patients experiencing a relapse of severe disease symptoms disease what are the treatment options?**

Increased doses of glucocorticoids is recommended in patients who have relapses. Anti-IL-5 therapy with mepolizumab is currently approved for relapsing disease in EGPA and can be added to current treatment for patients experiencing relapse. Rituximab is favored for re-induction in patients who have previously received treatment with cyclophosphamide in order to avoid cyclophosphamide-associated toxicity.

Cyclophosphamide can be considered in patients with recurrent cardiac involvement, as cardiac symptoms are typically associated with ANCA-negative disease.

## **Q: In patients experiencing a relapse of non-severe disease symptoms (asthma and/or sino-nasal) disease what are the treatment options?**

Increasing dose of glucocorticoids is the treatment of choice for non-severe disease relapse.

Mepolizumab is recommended for relapse of non-severe symptoms such as asthma or sino-nasal disease and is the only treatment with FDA approval for relapsing EGPA.

Adjunctive therapies such as inhaled glucocorticoids, long-acting bronchodilators, and leukotriene-modifying agents should be utilized to target respiratory if not already prescribed.

## Treatment with IL-5 Targeting Therapy

### Q: How is mepolizumab given in EGPA treatment?

Mepolizumab is given by subcutaneous injection and can be self-administered by patients at home. The dose for treatment of EGPA is 300 mg once a month which is higher than the dose utilized for severe eosinophilic asthma or chronic rhinosinusitis with nasal polyps.

### Q: Is specific monitoring needed for patients receiving mepolizumab?

There are no specific monitoring recommendations for patients receiving treatment with mepolizumab. However, the most common adverse events seen in mepolizumab treatment for EGPA were headache, injection site reaction, back pain, and fatigue. Patients should be counseled to monitor for hypersensitivity reactions after administration of mepolizumab injection. Hypersensitivity reactions most commonly occur within a few hours of administration but can occur several days later.

### Q: When should corticosteroid tapering be considered in patients initiating treatment with mepolizumab?

A: In the phase 3 clinical trial of mepolizumab in nonsevere EGPA (MIRRA Study), corticosteroid tapering was initiated 4 weeks after the first dose of mepolizumab when a patient was in remission. Tapering was continued every 2 weeks unless a relapse of symptoms occurred. The sample corticosteroid tapering schedule utilized in the MIRRA Study can be found on page 100 in the [study protocol](#).

### Abbreviations and acronyms

ACR: American College of Rheumatology

ANCA: antineutrophil cytoplasmic antibodies

CNS: central nervous system

EGPA: Eosinophilic granulomatosis with polyangiitis

FFS: Five Factor Score

MIRRA: [Mepolizumab in Relapsing or Refractory EGPA](#)

# References:

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