

## Oral Viscous Budesonide Solution (OVB) for Eosinophilic Oesophagitis (EO)

Author: Bhumik Patel (Lead Pharmacist Women's and Children's Pharmacist)  
 Approved: Akshat Kapur / Michael Hii / Assad Butt - Paediatric Consultants  
 DTC Approved January 2017  
 Publication date: January 2017  
 Review date: January 2019  
 Version: 1

---

### Background:

Budesonide is a steroid normally used in the treatment of asthma or COPD, with a potent glucocorticoid effect but weak mineralocorticoid effect.

Eosinophilic Oesophagitis (EO) is an allergic inflammatory condition of the oesophagus characterized by a high degree of eosinophilia in the oesophagus in response to allergic triggers. Treatment strategies often include dietary modifications to exclude potential allergens that may trigger the inflammatory processes, medical therapies and mechanical dilatation of the oesophagus.

Use of systemic corticosteroids and swallowed topical steroids have demonstrated efficacy to inducing and maintaining a reduction in the oesophageal eosinophil levels and consequent inflammation. Most frequently topical corticosteroids in the form of fluticasone administered through metered dose inhalers (MDI) have been used however this method proves difficult to administer in young children. Recently numerous studies have looked at using oral viscous suspension of budesonide, made using the Pulmicort Respule™, which has been found to be safe and effective in treatment of EO as a viable alternative to use of MDI's to deliver doses.

### Dose:

- Doses for children < 10 years of age: **1mg ONCE daily**
- Doses for children > 10 years of age: **2mg ONCE daily**

Doses MUST be mixed with glycerine linctus or glycerine and blackcurrant linctus to ensure that the dose provided is at the correct viscosity to adequately line the oesophagus and provide topical effects.

### Formulation and Storage:

Available as:

- Pulmicort Respules™, 0.5mg in 2mL per respule. Store at room temperature
- Glycerin linctus / glycerin and blackcurrant linctus store at room temperature

### Administration:

- Open the respule and empty the contents into a medicines pot. For a 1mg dose 2 respules (4mL) is required; for a 2mg dose 4 respules (8mL) is required to provide the required dose

- Dilute dose using glycerin linctus, glycerin and blackcurrant linctus to a final volume of:  
**8mL for a 1mg dose**  
**12mL for a 2mg dose**
- **Dose MUST be taken immediately.**

### Monitoring:

- Children with eosinophilic oesophagitis (EO) should be under regular follow up of paediatric gastroenterology team including concurrent use of PI medication as reflux oesophagitis can also co-exist with EO and contribute to mucosal eosinophilia.

### Side Effects:

#### Common:

- Oral candidiasis

#### Very rarely:

- Metabolism and Nutritional: Oedema of legs, cushing's syndrome
- Gastrointestinal disorders: constipation, nausea.
- CNS: In adolescents – benign intracranial hypertension
- Musculoskeletal: Diffuse muscle pain and weakness, osteoporosis.
- Tiredness, malaise.<sup>1,2</sup>

Refer to the SPC for a more comprehensive list.

### Cautions:

Caution should be used in those patients with diabetes. Glycerin linctus contains 6.9g in 10mL carbohydrate (of which 3.4g sucrose and 1.6g glucose per 10mL).

### References:

1. Summary of Product Characteristics. Budenofalk capsules. Dr Falk Pharma UK Limited. Last updated on the eMC: 06/05/2015.
2. Aceves S, Bastian J, Newbury R, Dohil R. Oral viscous budesonide: A potential new therapy for eosinophilic oesophagitis in children. American Journal of Gastroenterology 2007; 102:1-9.
3. Krishna S, Kakati B, Olden K, Brown D. Treatment of Eosinophilic Oesophagitis: Is oral viscous budesonide superior to swallowed fluticasone spray? Gastroenterology and Hepatology, January 2011; 7(1): 55-59
4. Miehlike S, Hruz P, Vieth M, Bussmann C, von Arnim U, Bajbouj M, Schlag C, Madisch A, Fibbe C, Wittenberg H, Allescher HD, Reinshagen M, Schubert S, Track J, Krummenerl P, Arts J, Mueller R, Dilger K, Greinwald R, Straumann A. A randomized double blind trial comparing budesonide formulations and dosages for short-term treatment of eosinophilic oesophagitis. Gut, March 2016; 65(3): 390-399.
5. Summary of Product Characteristics. Boots Glycerin and Blackcurrant linctus. The Boots company PLC. Last updated on the eMC: 22/07/2015