Azithromycin Treatment for Severe Asthma

**WHAT IS AZITHROMYCIN?**
A MACROLIDE ANTIBIOTIC THAT IS:
- Anti-bacterial
- Anti-inflammatory

**WHAT IS THE EFFECT OF TREATMENT ON SEVERE ASTHMA?**
- Reduced asthma attacks
- Improved quality of life
- Reduced bronchitis episodes
- Improved asthma symptom scores
  
  *Improvements in lung function (e.g. FEV₁) have also been reported*

**WHO SHOULD MACROLIDES BE USED IN?**
In patients with severe asthma who fail to achieve symptom control treatment should be initiated in specialist care

*Note: The use of macrolide antibiotics for the treatment of asthma is off-label in Australia*

**TREATMENT APPROACH:**

1. **SCREENING**
   - Patients should be excluded based on the following:
     - Prolonged QTc interval (>480 ms)
     - Cardiac arrhythmia
     - Caution should be considered in people with hearing loss

2. **DOSING**
   - 500 mg (3x per week)
   - OR
   - 250 mg daily
   - For up to 12-months

3. **MONITORING**
   - **DIARRHOEA:** Increased rates were observed in a clinical trial (34% vs. 19% placebo). If diarrhoea occurs the dose can be adjusted and a probiotic co-administered.
   - **RHABDOMYOLYSIS:** Interactions have been reported between macrolides and statins. Discontinue use if myopathy symptoms occur.
   - **ANTIBIOTIC RESISTANCE:** Emergence of resistant pathogens may occur. Breaks in chronic therapy may be considered to reduce resistance. *Note: detection of antibiotic resistance should not automatically result in treatment discontinuation*

References: Reiter, J. 2013 Allergy; Gibson, P.G. 2017; Lancet; GINA Pocket Guide 2018; Hiles S.A. 2019 ERJ

Developed as part of the: severeasthma.org.au