Bedfordshire and Luton Joint Prescribing Committee

Sept 2020
Review: Sept 2023

Use of Nebulised Tobramycin and Nebulised Colistimethate sodium as Antibiotic Prophylaxis to prevent exacerbations of Non- Cystic Fibrosis Bronchiectasis in Adult Patients

General points for consideration before initiating therapy:-

1. **Nebulised Tobramycin and Nebulised Colistimethate sodium prophylaxis** to prevent acute exacerbations of non-cystic fibrosis bronchiectasis should only be initiated by a specialist.
2. **The criteria apply to nebulised Colistimethate sodium or Tobramycin only and do not apply to dry powder inhalers.**
3. **Prior to starting treatment, funding approval must be sought from the patient's CCG via Blueteq**.
4. To ensure shared decision-making, the following should be discussed with the patient :-
   - the potential benefits of antibiotics for reducing exacerbations (taking into account the uncertain evidence of benefit for inhaled antibiotics)
   - the risks of antimicrobial resistance with long-term antibiotics, which may mean fewer effective antibiotics for future exacerbations
   - the possible adverse effects of long-term antibiotics, such as:
     - diarrhoea, cardiac events, hearing loss or tinnitus with macrolide antibiotics
     - bronchospasm with inhaled antibiotics
   - the possible interactions of macrolide antibiotics with other medicines
   - the need to regularly review prophylaxis.'

Criteria for use (Adults):- (continued)

All other aspects of management, including airways clearance, are optimal.

Patients have been adequately investigated with sputum culture (including tests for non-tuberculous mycobacteria (NTM)), and consideration of fungal investigations, lung function, and radiological investigations.

The patient has:-

- experienced 3 or more exacerbations per year **and**
- clinically significant/symptomatic pseudomonal lung infection (impacting on the patient's activities of daily life) **and**
- would otherwise be admitted for IV antibiotics **and**
- previous history of repeated admissions with lengthy hospital stays

First line inhaled therapy – Nebulised Colistimethate sodium (**Amber** formulary status) This treatment must be initiated by the Specialist, but may be continued by the GP/non-medical prescriber. (**NB -** as all nebulised antimicrobials for non-CF bronchiectasis are unlicensed, the Specialist must ensure that the GP is made aware of this information before prescribing is transferred).

Second line inhaled therapy – Consider Nebulised gentamicin (**Red** formulary status) This treatment must be initiated and continued by the Specialist. **GP prescribing is not recommended.**

Consider azithromycin or erythromycin as an alternative (eg, if a patient does not tolerate inhaled antibiotics) to an inhaled antibiotic for patients with bronchiectasis and chronic *P. aeruginosa* infection.
Consider azithromycin or erythromycin as an additive treatment to an inhaled antibiotic for patients with bronchiectasis and chronic *P. aeruginosa* infection who have a high exacerbation frequency.

Third line inhaled therapy- Tobramycin Nebuliser Solution nebulised twice daily for 28 days alternating with either no nebulised antimicrobial or nebulised colistimethate. (Prescribing responsibility guidance as outlined above under **second line inhaled therapy -** (**Red** formulary status)**).**

Criteria for Continuation– Initial review at 3 months then every 12 months
Clinical response to treatment with no lung function decline (at 3 months) **and** reduction in hospital admissions and/or length of hospital stay, reduction in exacerbations (at 12 months)

Stopping Criteria
No change to frequency of exacerbations or hospital admissions
No infective exacerbations for 12-24 months