

North of Tyne, Gateshead and North Cumbria Area Prescribing Committee

Nebulised Gentamicin Information for Treatment of Adults in Primary Care

Formulary Approved Indication

Nebulised Gentamicin is included in the North of Tyne, Gateshead and North Cumbria Formulary for use in the following circumstance:

- Long term therapy in non-cystic fibrosis bronchiectasis usually in patients having > 2 exacerbations per year with an organism identified as being sensitive to gentamicin
- Patients on assisted ventilation, patients with tracheostomies and those with persistent bacterial bronchitis.

This is an unlicensed indication. Nebulised gentamicin is recommended in the British Thoracic Society guidelines for bronchiectasis <https://www.brit-thoracic.org.uk/document-library/clinical-information/bronchiectasis/bts-guideline-for-bronchiectasis-in-adults/>.

Background

Gentamicin is an aminoglycoside antibiotic. Its administration as a nebulised drug for chronic airway infections such as bronchiectasis is well established.

Recommendations on Use

- ◆ *Approved indication Bronchiectasis (indication is unlicensed but evidence based; See Murray et al American Journal of Critical Care 201, ERS Bronchiectasis Guidelines 2017 and BTS Bronchiectasis guidelines 2010. 2019)*
- ◆ *Treatment must be started by specialists dealing with chronic airway infections; A 3 month trial is suggested with review and stop/ continue decision thereafter.*
- ◆ *The drug is off patent and has been used for this indication for some time*
- ◆ *Care with use may be required; local experience is that 1/6 patients stop due to chest tightness. Acute severe (1st dose) bronchospasm is less than 1%.*

Cautions

Acute hypersensitivity (bronchospasm) has been reported; all first doses should be undertaken within an appropriate environment with lung function testing (e.g. secondary care facility).

Contra-indications

Absolute contraindication; Hypersensitivity to gentamicin: Pregnancy/ preconception
Relative contraindications: Deafness (limited systemic absorption is expected), Severe renal disease.

Dose

80mg nebulised BD (usually diluted in 4ml 0.9% sodium chloride). Dose titration is not relevant, and discontinuation if needed can be immediate. Some patients reduce frequency to once daily once established and this seems to have little impact on efficacy and may actually improve compliance as once daily is more manageable. Once daily dosing should be discussed with the specialist in secondary care

Monitoring

Patient should stop therapy for 3-4 days if low grade chest or throat discomfort is reported.

Side-effects

Common relevant side effects include chest tightness (1/6 patients) that can in some be resolved with pre-treatment with inhaled salbutamol.

Drug Interactions

None expected given limited if any systemic absorption.

NHS Cost

| | NHS Cost (28 days supply) |
|---|----------------------------------|
| Gentamicin 80mg/2ml injection + 4ml sodium chloride 0.9% injection BD | £97.21 |

Please note: The following brands of gentamicin are suitable for nebulisation as neither product contains alcohol (which can cause bronchospasm):

- Cidomycin®
- Genticin® Injectable (Advanz Pharma NB. Only available through Alloga Patients should be advised to check with their pharmacist if the brand of gentamicin changes.

All needles and syringes will be supplied by secondary care.

Other information

See the manufacturer's SPC or BNF for more detailed prescribing information

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