

Birmingham and Midland Eye Centre Topical ophthalmic antibiotic selection guide

This table relates to antibiotics for topical treatment only.

This is a guide for selecting a suitable topical ophthalmic antibiotic based on the microbiology sensitivity report. It does not replace clinical judgement and BMEC ophthalmic infection guidelines should be followed – in cases of doubt, antibiotic therapy should be discussed with the duty microbiologist and a consultant ophthalmologist.

		Alternatives (in order of preference)	
Sensitive to	First choice	Preserved	Preservative free
Miscellaneous			
Chloramphenicol	G. chloramphenicol 0.5%	G. fusidic acid 1% Check quinolone sensitivity	G. chloramphenicol 0.5% Oc. chloramphenicol 1% Check quinolone sensitivity Check cefuroxime sensitivity G. vancomycin 5%*‡
Fusidic acid	G. fusidic acid 1%	G. chloramphenicol 0.5% Check quinolone sensitivity	G. chloramphenicol 0.5% Oc. chloramphenicol 1% Check quinolone sensitivity Check cefuroxime sensitivity
Aminoglycosides			
Gentamicin	G. gentamicin 0.3%	Check quinolone sensitivity	G. gentamicin 1.5%‡ G. amikacin 2.5%*‡ Check quinolone sensitivity Check cefuroxime sensitivity
Amikacin	G. amikacin 2.5% PF*‡	Check quinolone sensitivity	Check quinolone sensitivity Check cefuroxime sensitivity <i>Ps. aeruginosa</i> : check ceftazidime*

		Alternatives (in order of preference)	
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Drugs marked in red contain penicillin and are contra-indicated in penicillin allergy; drugs marked in orange should be used with caution in penicillin allergy and avoided if there is any history of anaphylaxis to penicillin; drugs marked in green are safe in penicillin allergy

PF = preservative free.

*May not be readily available – check availability with pharmacy and discuss with microbiology for interim alternatives if supply will be delayed.

‡Restricted – must be prescribed in accordance with BMEC ophthalmic infection policies

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Sensitive to	First choice	Preserved	Preservative free
Beta-lactams			
Penicillin	G. chloramphenicol 0.5%	G. fusidic acid 1% G. penicillin 5000 units/ml	G. chloramphenicol 0.5% Oc. chloramphenicol 1% G. penicillin 5000 units/ml* G. cefuroxime [†] 5% [‡] G. vancomycin 5%* [‡]
Flucloxacillin	G. chloramphenicol 0.5%	G. fusidic acid 1%	G. chloramphenicol 0.5% Oc. chloramphenicol 1% G. cefuroxime [†] 5% [‡] G. vancomycin 5%* [‡]
Cefuroxime	G. cefuroxime 5% PF [‡]	Check quinolone sensitivity Check aminoglycoside sensitivity	Check quinolone sensitivity Check aminoglycoside sensitivity Check vancomycin sensitivity
Ceftazidime	G. ceftazidime 5% PF* [‡]	Check quinolone sensitivity Check aminoglycoside sensitivity	
Glycopeptides			
Vancomycin	G. vancomycin 5% PF* [‡]	G. chloramphenicol 0.5% G. fusidic acid 1%	G. chloramphenicol 0.5% Oc. chloramphenicol 1%
Macrolides			
Azithromycin	G. azithromycin 1.5% PF [‡]	Check quinolone sensitivity	Check quinolone sensitivity
Quinolones			
Ofloxacin	G. ofloxacin 0.3% [‡]	G. ciprofloxacin 0.3% [‡]	Oc. ciprofloxacin 0.3% G. levofloxacin 0.5% [‡] Check cefuroxime sensitivity <i>Ps. aeruginosa</i> : check ceftazidime
Ciprofloxacin	G. ciprofloxacin 0.3% [‡]	G. ofloxacin 0.3% [‡]	Oc. ciprofloxacin 0.3% G. levofloxacin 0.5% [‡]

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[‡]Restricted – must be prescribed in accordance with BMEC ophthalmic infection policies

Reviewed by Lucy Titcomb: March 2013

Version: 2

Review Date: July 2016

Approved by: Drugs and Therapeutic Committee; Directorate Governance Group