# DO WE NEED POST-OPERATIVE CHLORAMPHENICOL AFTER CATARACT SURGERY?

## AUDIT SUGGESTS IT MAY NOT BE NECESSARY WHEN INTRACAMERAL ANTIBIOTICS ARE USED

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**INTRACAMERAL ANTIBIOTIC** (Cefuroxime) given at the end of surgery

**110 PATIENTS** received **NO** post-operative chloramphenicol

**0 CASES OF ENDOPHTHALMITIS** or any post-operative infection

**POTENTIAL NHS SAVING**
**> £1 MILLION PER YEAR**
Based on >600,000 cataract surgeries nationally and £2.78 per course of chloramphenicol

## BACKGROUND

Intracameral cefuroxime reduces post-operative endophthalmitis by ~5x and is standard practice[1].

However, evidence for routine post-operative topical antibiotics is weak and guidelines are lacking [2,3].

**Current practice at NGH:**
**Chloramphenicol 4 times daily for 7 days.**

## AIM

To assess outcomes of cataract surgery patients who did or did not receive post-operative topical antibiotics, when intracameral antibiotics were used.

## CONCLUSION

Our data indicates it is safe to discharge patients without topical antibiotics following cataract surgery provided intracameral antibiotics were administered.

Larger studies are needed to confirm these findings.

## RESULTS – 128 PATIENTS ANALYSED




**110 PATIENTS (86%)** had no post-operative topical antibiotics

**0 CASES OF ENDOPHTHALMITIS** or any other infection

**Other post-operative complications (n):**

- **1** Punctate Keratitis
- **2** Anterior Chamber Inflammation
- **4** Macular Oedema
- **1** Retinal Tear

**Intra-operative complications (n):**

- **2** Corneal abrasion
- **1** Rhexis extension (no vitreous loss)
- **1** Posterior capsule rupture

## METHODOLOGY & DEMOGRAPHICS

Retrospective audit
March – September 2025

Data collected from Mediviewer & Nerve Centre

**135** cases completed
7 excluded (missing data)
**128** analysed

Analysed on Google Sheets & saved on NHS OneDrive

**PATIENT SUMMARY (n=128)**

**AGE (YEARS)**
Mean **75.9**
(43 – 94)

**GENDER**
**M:** 63 (49%)
**F:** **65** (51%)

**LATERALITY**
Left eye: **78** (61%)
Right eye: **50** (39%)

**COMORBIDITIES**

- **48** Diabetes Mellitus
- **61** Hypertension
- **3** Previous intraocular surgery
- **17** Previous intraocular injection

**SURGEON GRADE**

- **63** (49%) Consultant
- **42** (33%) Trust Grade
- **23** (18%) Junior Trainee (ST1 – ST3)

## DISCUSSION – WHY IT MATTERS

With >600,000 cataract surgeries done nationally, avoiding routine chloramphenicol could save the NHS in excess of **£1,000,000** every year.

**Reducing unnecessary antibiotic use also supports antimicrobial stewardship and reduces environmental impact.**

The National Ophthalmology Database collects endophthalmitis rates[4] but not post-operative medications. Collecting this data could provide valuable national insight.

## LIMITATIONS

- National endophthalmitis rate is 0.02% (2023)[3] – a much larger sample is needed for definitive evidence.
- Some patients discharged to opticians may present elsewhere if complications arise – these cases may not be captured locally.

## REFERENCES

1. Endophthalmitis Vitrectomy Study Group. *Arch Ophthalmol.* 1995;113:1479–1496.
2. Rathi VM, Sharma S, Das T, Khanna RC. *Indian J Ophthalmol.* 2020;68(11):2451–2455.
3. Rãen M, Sandvik GF, Drolsum L. *Acta Ophthalmol.* 2013;91(2);118–122.
4. National Ophthalmology Database 2025. Royal College Ophthalmology. 2025.

**TAKE HOME MESSAGE:** Intracameral antibiotics protect. Routine post-operative chloramphenicol may NOT be required.