



九龍東醫院聯網  
KOWLOON EAST CLUSTER



醫院管理局  
HOSPITAL  
AUTHORITY

# Effect of Introducing Routine Use of Intracameral Cefuroxime on Postoperative Endophthalmitis in Cataract Surgery

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UCH and TKOH,

SAFETY FIRST

# Cataract Surgery

KEC Internal Audit (n =624)

91.36% visual improvement

6.3% vision stable

1.9% worsen



**CATARACT SURGERY?**

***Simple!***

**Schedule your  
lens evaluation  
today!**

# Patient Expectation

- Ext
- Job
- (
- Lov



## 白內障手術會有什麼併發症？

所有手術均存著風險，但隨著科技日益發達，超過九成以上的白內障患者在手術順利完成後都不會出現併發症。雖然出現併發症的情況並不普遍，若一旦發生，患者的視力仍有可能被損害。

以下是一些較嚴重及威脅到視力的併發症：

- 眼內出血
- 受感染
- [青光眼](#)
- [視網膜脫落或裂開](#)
- 黃斑水腫
- 角膜內皮細胞變化
- 眼內殘留渾濁晶體的碎片，需進行第二次摘除手術
- 失明



# Postop Endophthalmitis

- The most serious complication after cataract surgery, often resulting in blindness or even loss of globe.
- Incidence 0.5-3 per 1,000 cases (0.05-0.3%)



27.10.2012

## 六病人手術後有眼內炎

【本報訊】醫院眼內炎併發症個案輕微上百分之零點零一至百分之五。醫院翻查紀錄後發現十三歲的病人，曾於術後衛生防護中心曾經到醫院境污染情況醫院聯網感染控制組繼續監察情況。



Q 霍婆婆坦言對香港的醫護人員信心盡失。周景文攝

## 兩人接受白內障手術後發炎

16.10.2012

f Like 0

衛生防護中心今日接獲

呈報涉及

醫院聯網感染控制組繼續監察情況

### Sun特搜：婆婆割白內障變獨眼 醫生：你唔好彩

10.12.2009

#### 本文重點

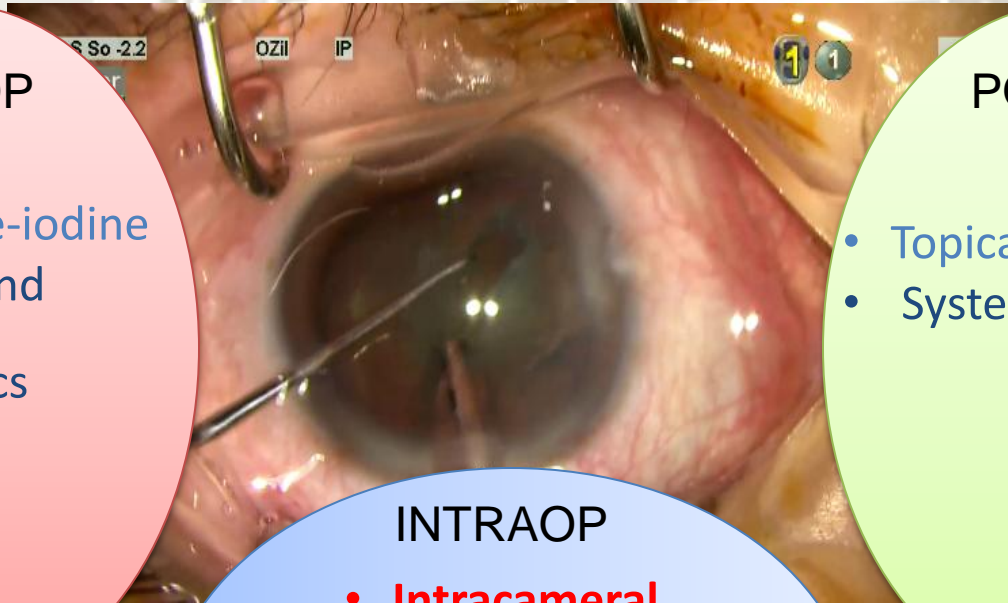
- 左眼白內障唔敢做手術  
院未有承認手術失敗

【SUN特搜小組記者李嘉行、羅慶輝報道】公立醫院又爆恐怖醫療事故，害七旬

# How can we prevent infection?

## PREOP

- Povidone-iodine
- Topical and systemic antibiotics



## POSTOP

- Topical antibiotics
- Systemic antibiotics

## INTRAOP

- **Intracameral antibiotics**
- Subconjunctival antibiotics
- Antibiotic in infusion fluid



# European Society of Cataract and Refractive Surgery 2007

- ESCRS Endophthalmitis Study Group
  - The prophylactic use of intracameral cefuroxime (2<sup>nd</sup> generation cephalosporin) was shown to be effective
    - Reduce the risk by a factor of 4.92
- The routine use of intracameral cefuroxime was implemented in KEC since **April 2010**.



ESCRS Guidelines on prevention,  
investigation  
and management of  
post-operative endophthalmitis



Version 2  
August 2007

Editors

Peter Barry, Wolfgang Behrens-Baumann,  
Uwe Pleyer & David Seal



# Cefuroxime





# Method

- All cases that underwent cataract surgeries from
  - **Jan 2004 to Jun 2012** in KEC were retrospectively reviewed.
- The rate of postoperative endophthalmitis was compared:
  - **Group 1**: before implement routine use of ICC
  - **Group 2**: after implement routine use of ICC



# Perioperative Details

- Preoperative:
  - Both groups had 5% povidone-iodine antiseptis.
- Intraoperative:
  - **Group 1**: no intraoperative antibiotic prophylaxis
  - **Group 2**: intracameral cefuroxime
    - Except known allergy to penicillin/cephalosporin group antibiotics
- Postoperative:
  - Both groups had topical antibiotics (0.5% chloramphenicol or ciprofloxacin) and steroid (0.5% dexamethasone or 1% prednisolone)



# Results

- A total of 16,045 eyes were included

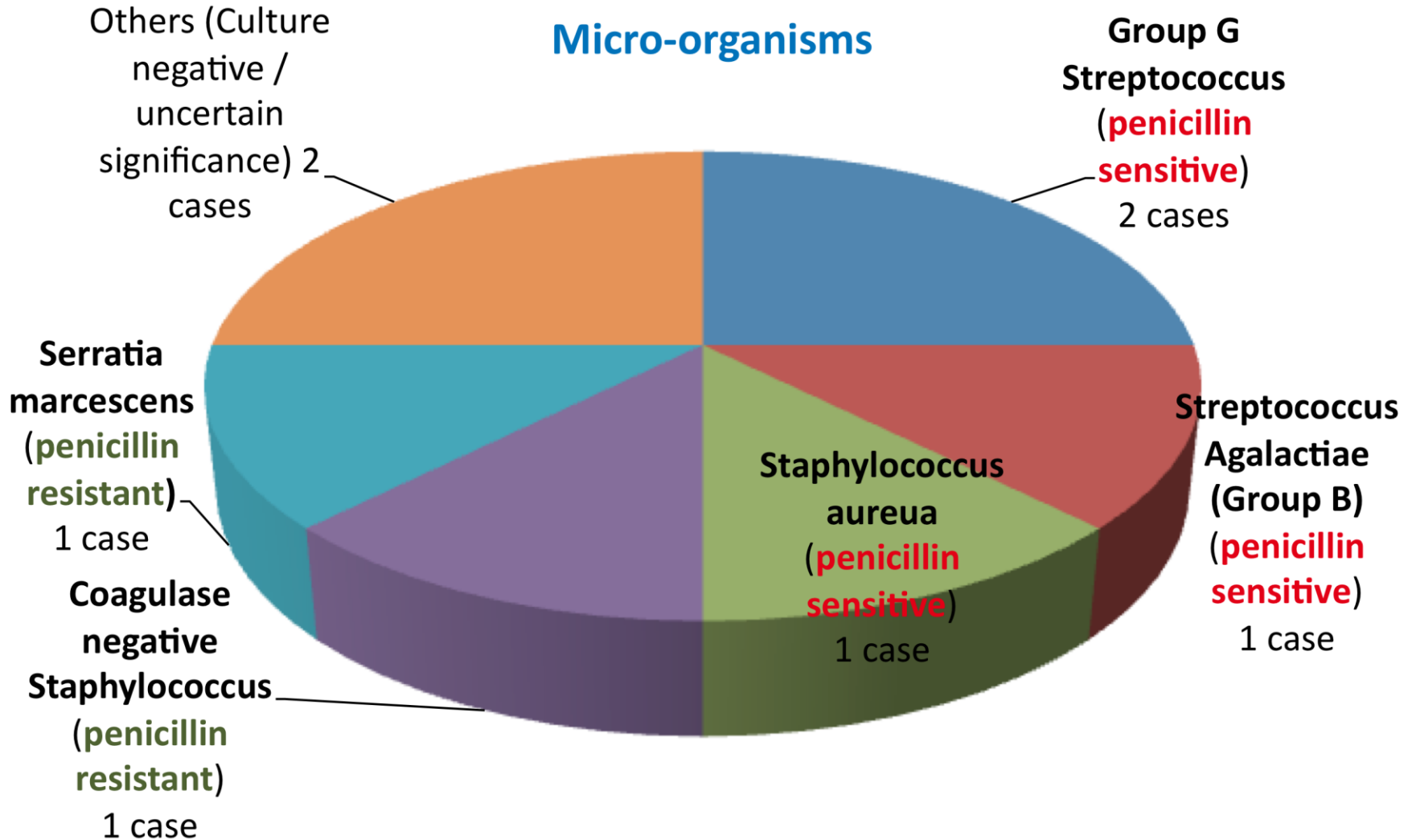
	Total cases	Endophthalmitis Cases
Group 1 (No intracameral cefuroxime)	7332	8 (0.11%)
Group 2 (Routine use of intracameral cefuroxime)	8713	0

- Rate of post-operative endophthalmitis significantly reduced from 0.11% to 0% ( $p = 0.002$ , Fisher's Exact test)
- No adverse reaction to intracameral cefuroxime was encountered.



# Causative microorganisms of endophthalmitis cases in Group 1

## Micro-organisms





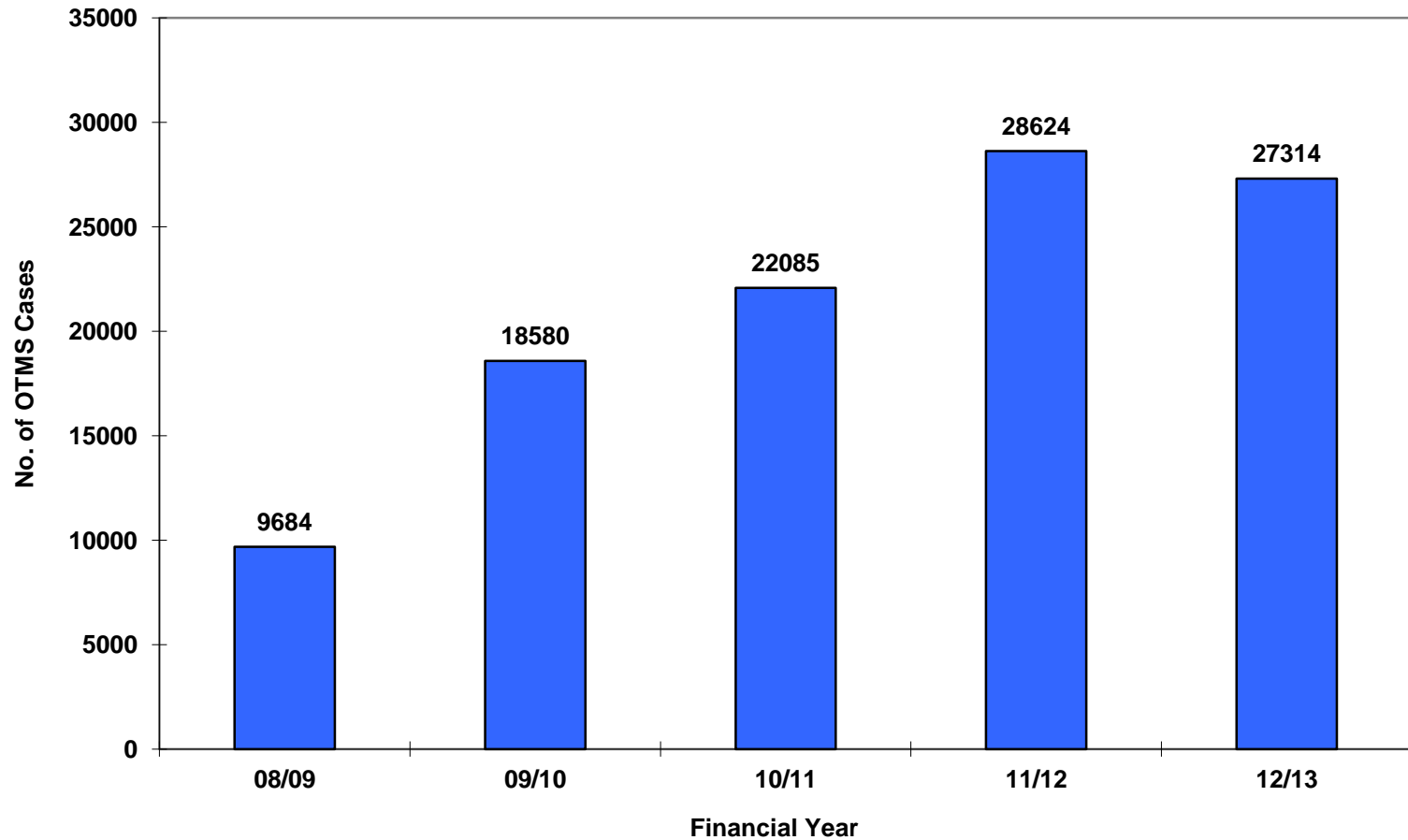
# Conclusion

- After implementing the routine use of prophylactic intracameral cefuroxime to KEC, the rate of postoperative endophthalmitis after cataract surgery significantly reduced from 0.11% to 0% ( $p = 0.002$ ).
- **Two-thirds** of the causative micro-organisms before routine intracameral cefuroxime were penicillin-sensitive and this further supports the use of intracameral cefuroxime in our locality.



# HA Cataract Throughput 2008 -2013

Total Annual Cataract throughput - 2008 to 2013



# Universal Coverage

- Annual cataract throughput of 27,314
- Potentially prevent 30 cases of blindness per year





# Thank You



## Kowloon East Cluster Cataract Consortium