

**Directorate of Governance and Quality
Improvement**

Clinical Audit Department

Audit Findings
(For Discussion and Action Plan)

Audit of Outcomes of Cataract Surgery

Specialty	Goole Surgical Treatment Centre
Division	Ophthalmology
Audit Code	GTC/OPH/08/01
Presentation Date	11 March 2009
Project Lead	Mr Bhattacharyya
Project Liaison	Janet Jessop
Audit Officer	Lisa Pennington
Governance Lead	Fay McKalroy

Confidential

Background & Rationale of Project

Mr Bhattacharyya suggested for the outcomes of cataracts to be audited at Goole Surgical Treatment Centre.

Cataract is a common and important cause of visual impairment world wide. The cataract is a clouding part of the eye called the lens. The vision becomes blurred because the cataract is like frosted glass, interfering with the sight.

Surgical removal of the cataract remains the only effective treatment available to restore or maintain vision. The purpose of the operation is to replace the cloudy lens (cataract) with an artificial lens (implant) inside the patient's eye. This operation can be undertaken with a local anaesthetic.

The most obvious benefits are greater clarity of vision and improved colour vision. The lens implants are selected to compensate for existing focusing problems; patients do find that their eyesight improves considerably after surgery however they will need to replace their glasses.

Project Objectives

- To ensure current outcomes are in line with the national figures

Disciplines involved

Disciplines	Dept/Ward/Area	Contact Name
Management	Goole Surgical Treatment Centre	Gaby Sadowyj
Medical	Ophthalmology	Mr Bhattacharyya
Nursing	Ophthalmology	Janet Jessop

Standards

1. Visual acuity at discharge from post-op hospital follow-up (before final refraction)

Sections a to f should achieve a visual acuity of 6/12 or better

- >85% of patients with no ocular co-morbidity
- >65% of all patients with ocular co-morbidity
- >59% of cases with ARM
- >67% of cases with glaucoma
- >56% of cases with diabetic retinopathy
- >50% of cases with amblyopic

1. Visual acuity at final refraction

Sections a to b should achieve 6/12 at final refraction

- >92% of patients without ocular co-morbidity
- >77% of patients with ocular co-morbidity

1. Intra-operative complications

- Anterior chamber haemorrhage <0.5%
- Torn iris <0.4%
- Capsule rupture with vitreous loss <4.4%
- Incomplete cortical clean up <1.0%
- Loss of intraocular lens in to vitreous <0.16%

1. <u>Complications within 48 hours of surgery</u>		
a)	Raised intraocular pressure	<7.9%
b)	Wound leakage/rupture	<1.2%
c)	Corneal oedema	<9.5%
d)	Hyphaema	<1.1%
e)	Uveitits	<5.6%
f)	Retained lens material	<1.1%
g)	Retinal detachment	<0.03%
h)	Retinal tear	<0.02%
i)	Endophthalmitis	<0.03%
1. <u>Complications within 3 months of surgery</u>		
a)	Endophthalmitis	<0.1%
b)	Retinal detachment/tear	<0.1%

References/ Basis for Standards

Cataract Surgery Guidelines, February 2001, Royal College of Ophthalmology

Methodology

The audit project looked at the outcome of the patients which had cataract surgery from July 2008 onwards, and included the complications and the refraction. Overall 83 patients were included in the audit.

The audit department designed the data collection form and Mr Bhattacharyya and Janet Jessop completed the data collection.

The completed data collection forms were then sent to the Clinical Audit department for input and analysis.

A meeting was set up for the 11th March for all of those which are involved and who have an interest in this procedure to see the results.

Audit Findings

Out of the total sample of 83 patients, 11 patients did not have their ocular morbidity documented; these patients were excluded from standards 1 and 2.

Standard 1	Achieved
<u>Visual acuity at discharge from post-op hospital follow-up (before final refraction)</u>	
Sections a to f should achieve a visual acuity of 6/12 or better	
a) >85% of patients with no ocular co-morbidity	41/44 (93%)
b) >65 [^] of all patients with ocular co-morbidity	22/28 (79%)
c) >59% of cases with ARM	7/10 (70%)
d) >67% of cases with glaucoma	9/10 (90%)
e) >56% of cases with diabetic retinopathy	0/1 (0%)
f) >50% of cases with amblyopia	1/2 (50%)

Out of the 28 patients that had ocular co-morbidities as shown above in standard 1 (points c to f), 5 were documented as having "other" co-morbidities, which included drusen, high myope, no fundal view, nuclear sclerosis and renal disease.

Standard 2	Achieved
<u>Visual acuity at final refraction</u>	
Sections a to b should achieve 6/12 at final refraction	
a) >92% of patients without ocular co-morbidity	10/10 (100%)
b) >77% of patients with ocular co-morbidity	10/11 (91%)

Patients with no ocular co-morbidity

Of the 44 patients without ocular co-morbidity, (77%) 34 did not have the final refraction documented. For the remaining 10 patients they all achieved 6/12 or better at final refraction.

Patients with ocular co-morbidity

Of the 28 patients with ocular co-morbidity, (54%) 15 did not have the final refraction documented. For the remaining 11 patients, 10 achieved 6/12 or better at final refraction, 1 patient's final refraction was documented as be able to count fingers (C/F).

Standard 3	Achieved
<u>Intra-operative complications</u>	
a) Anterior chamber haemorrhage	<0.5% 0/83 (0%)
b) Torn iris	<0.4% 0/83 (0%)
c) Capsule rupture with vitreous loss	<4.4% 0/83 (0%)
d) Incomplete cortical clean up	<1.0% 0/83 (0%)
e) Loss of intraocular lens in to vitreous	<0.16% 0/83 (0%)
Standard 4	Achieved

<u>Complications within 48 hours of surgery</u>		
a) Raised intraocular pressure	<7.9%	0/83 (0%)
b) Wound leakage/rupture	<1.2%	0/83 (0%)
c) Corneal oedema	<9.5%	2/83 (2.4%)
d) Hyphaema	<1.1%	0/83 (0%)
e) Uveitits	<5.6%	0/83 (0%)
f) Retained lens material	<1.1%	0/83 (0%)
g) Retinal detachment	<0.03%	0/83 (0%)
h) Retinal tear	<0.02%	0/83 (0%)
i) Endophthalmitis	<0.03%	0/83 (0%)

Standard 5	Achieved
<u>Complications within 3 months of surgery</u>	
a) Endophthalmitis <0.1%	0/83 (0%)
b) Retinal detachment/tear <0.1%	0/83 (0%)

Summary of Audit Findings

Standards	Achieved
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Standard 1		
<u>Visual acuity at discharge from post-op hospital follow-up (before final refraction)</u>		
Sections a to f should achieve a visual acuity of 6/12 or better		
a) >85% of patients with no ocular co-morbidity		41/44 (93%)
b) >65 [^] of all patients with ocular co-morbidity		22/28 (79%)
c) >59% of cases with ARM		7/10 (70%)
d) >67% of cases with glaucoma		9/10 (90%)
e) >56% of cases with diabetic retinopathy		0/1 (0%)
f) >50% of cases with amblyopic		1/2 (50%)
Standard 2		
<u>Visual acuity at final refraction</u>		
Sections a to b should achieve 6/12 at final refraction		
a) >92% of patients without ocular co-morbidity		10/10 (100%)
b) >77% of patients with ocular co-morbidity		10/11 (91%)
Standard 3		
<u>Intra-operative complications</u>		
a) Anterior chamber haemorrhage	<0.5%	0/83 (0%)
b) Torn iris	<0.4%	0/83 (0%)
c) Capsule rupture with vitreous loss	<4.4%	0/83 (0%)
d) Incomplete cortical clean up	<1.0%	0/83 (0%)
e) Loss of intraocular lens in to vitreous	<0.16%	0/83 (0%)
Standard 4		
<u>Complications within 48 hours of surgery</u>		
a) Raised intraocular pressure	<7.9%	0/83 (0%)
b) Wound leakage/rupture	<1.2%	0/83 (0%)
c) Corneal oedema	<9.5%	0/83 (0%)
d) Hyphaema	<1.1%	0/83 (0%)
e) Uveitits	<5.6%	0/83 (0%)
f) Retained lens material	<1.1%	0/83 (0%)
g) Retinal detachment	<0.03%	0/83 (0%)
h) Retinal tear	<0.02%	0/83 (0%)
i) Endophthalmitis	<0.03%	0/83 (0%)
Standard 5		
<u>Complications within 3 months of surgery</u>		
a) Endophthalmitis	<0.1%	0/83 (0%)
b) Retinal detachment/tear	<0.1%	0/83 (0%)

Discussion

The audit was presented on the 11th March; the group discussed the results and agreed that the results were encouraging for a first audit on Cataract Surgery.

The main point which the audit highlighted was that the final refraction on 77% of case was not documented in the case notes. This was discussed by the group and Mr Bhattacharyya identified that at Goole the final refraction is kept separately to the notes in a folder, however these were being filed in the notes and there was a backlog. The group did agree that from this meeting the

final refraction which is documented by the Optician and sent to Goole will be kept central in a file and also to make everyone aware where this file was kept. These will then be included in the re-audit and it will be identified under the Methodology to look in this file for the final refraction.

There was also some confusion regarding the data collection forms and the data that needed collecting as many patients did not have documented if they had an ocular morbidity or not and some information was left blank.

From this the group agreed to complete a documentation audit on the Ophthalmology case notes.

Action Plan

	Action	Type*	Responsible Personnel	Completion Date
1	To include the final refraction documented in the re-audit.	A	Audit Depart	Re-Audit
2	Audit of Ophthalmology Documentation to be undertaken.	E	Mr Bhattacharyya/ Audit Depart	ASAP
3	All information to be included in the data collection forms on re-audit	E	Data Collectors	Re-Audit
*Type				
<i>P = Change of Practice; E = Increased education or awareness; A = change of audit methodology</i>				
Re-Audit required				Yes / No
Give details of re audit - delete rows below as appropriate				
<ul style="list-style-type: none"> Complete re-audit to monitor continuing compliance with standards 				
Proposed date of re-audit				