

Country-wide Monitoring of Cataract Surgical Outcomes

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Introduction

The Lions SightFirst Eye Hospital (LSFEH) in Lilongwe, Malawi, participated in the initial study to develop monitoring systems for cataract outcome. The pilot study took place between 1 June and 31 December, 2000. All surgery was done at the Lions SightFirst Hospital, Lilongwe. The number of cataract operations recorded in the study was 454.

However, the proportion of patients seen for review was 89%, mainly because of active follow-up of those patients who did not come for review on their own. Details are given in Table 1.

No difference in visual outcome could be demonstrated in patients who returned voluntarily for review and those who did not come and were visited at home. Distance and cost of transport are probably the main barriers preventing patients from returning for follow-up.

The overall number of cataract operations in Malawi by Service Area and Hospital Facility are given in Table 2.

Malawi Eye Care Programme

Based on this experience, the Malawi Eye Care Programme (MECP), responsible for the majority of cataract operations in the country, decided to establish a sustainable system for routine monitoring of visual outcome after cataract surgery at all surgical centres. Sight Savers International is supporting the establishment of this monitoring system. MECP conducts cataract operations in well-equipped hospitals as well as satellite hospitals, with consultants, residents and cataract surgeons, mainly through referrals from diagnostic eye camps. The main surgical intervention is extracapsular cataract extraction with posterior chamber IOLs. During the pilot study there were 2 ophthalmologists and 3 cataract surgeons involved in the programme. Now, there are 6 ophthalmologists and 2 cataract surgeons in the country-wide monitoring of cataract outcomes.

Prior to implementation, all involved staff of all the centres where cataract surgery is performed have undergone training in data collection and data entry. Patient personal data, pre-operative examination, surgery and visual acuity at discharge are written on a standardised cataract surgical record form and entered

into a computer, using a specially developed data entry programme. Subsequent visual acuity at post-operative follow-up visits are added to the record and entered into the computer as well. The computer produces standardised outcome reports.

Data is entered by one dedicated ophthalmic clinical officer. The computer is programmed in such a way that it can detect double entry, check on the frequency of post-operative follow-up and, if the completed form is incorrectly completed, it rejects the data.

Cataract Surgery in Lilongwe, Mzuzu and Blantyre

On 1 June 2002 the LSFEH began routine monitoring of cataract operations. The centres in Mzuzu and Blantyre followed by October 2002. A standard cataract surgical record form is completed for each operated eye and post-operative visual acuity is to be measured at discharge, at 1-3 weeks, 4-11 weeks and 12 or more weeks post-operatively. Patients are encouraged to come by providing them with anti-inflammatory eye drops and ready-made reading glasses at review. However, home visits to assess visual outcome will not be possible and the proportion of patients coming for review is expected to be less than in the initial study.

The cataract surgeons are required to perform a minimum of 100 cataract operations independently, and with each visual outcome is monitored. This ensures their compliance in completing the cataract surgical records. So far, the compliance from ophthalmologists, cataract surgeons and ophthalmic clinical officers reviewing operated patients at the OPD has been good.

Four ophthalmic clinic officers have been assigned to each of the three centres to ensure that post-operative appointments are arranged before the patient is discharged, that patients coming for review are seen without delays and that their data are entered into the computer.

Monitoring Cataract Outcomes

A monitoring committee, consisting of 4 eye surgeons, will review the visual outcome analysis from Lilongwe and Mzuzu. They will review their own individual results and those from the cataract surgeons on a quarterly basis and present these results in a meeting with all ophthalmologists and cataract surgeons.

However, methodology used to monitor performance over time is for each surgeon. It is not to be used to compare one surgeon against another or one hospital against another. Each surgeon can access the cases

Table 1: Outcomes by Post-operative Period in LSFEH, 2000

	Discharge	1-7 weeks		8-25 weeks		26+ weeks	
	n=454	n=257		n=221		n=361	
		pres.	best	pres.	best	pres.	best
6/6-6/18	38.5	66.5	80.2	75.1	86.9	84.8	91.1
<6/18-6/60	45.4	26.8	15.6	17.6	9.5	7.5	4.2
<6/60	16.1	6.6	4.3	7.2	3.6	7.8	4.7

Table 2: The Number of Cataract Operations in Malawi by Service Area and Hospital Facility

Service Area/Hospital	2000	2001	2002	2003 Target
*LSFEH	1070	1410	1167	1500
QECH	608	635	513	1000
EHSA-North	349	644	729	850
EHSA-Centre	-	-	123	500
EHSA-L/shore	662	650	984	1000
EHSA-South	414	733	894	1000
EHSA-L/shire	257	284	396	500
National	3360	4356	4806	6350
National-CSR	336	436	481	635
% of IOL	85	90	96	98

* Initial study was done in this Hospital

