Outreach eye camps: a case study from West Bengal, India

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Introduction

Our hospital is located in a village in the southern part of West Bengal. The parent organisation is Vivekananda Mission Ashram, which works mainly in the field of education. In 1994, community-based rehabilitation (CBR) for the blind started, and the eye hospital was established. Towards the end of 1995, an effort was made to attract more people to the hospital. The first step was to analyse the geographical spread of the outpatients. It was observed that more than 80 per cent came from the CBR area. We therefore decided to conduct outreach camps outside the CBR areas to increase the coverage.

It was not easy at first to explain our approach and convince people about the camp process. People were familiar only with 'makeshift' surgical camps in school buildings and community halls. Fortunately, our organisation had a good name in the field of education, and this gave us a credible image in outreach eye care.

Preparing for a camp

Such camps have always been conducted on Sundays. We arrange camps at distant places during the pleasant winter season and restrict them to nearby areas during summer and the rainy season. Harvesting and local festivals are other important considerations while selecting the dates. Recently, we have increased the frequency of outreach to initiate separate diabetic retinopathy and refractive error camps.

The hospital has a dedicated outreach team of camp organisers. We receive requests to hold camps from local organisations. Camp organisers visit the location to assess accessibility, infrastructure and the credibility of the local group. Preferred sites are school buildings, because we need at least three rooms and some furniture to arrange a proper eye examination.

We first explain the process and objectives to the local organisers, who are then responsible for publicity. They are supplied with standardised communication material so that there is no distortion of facts.

The camp process

We give preference to people above the age of 50, because cataract, glaucoma and diabetic retinopathy are more common in this age group, and most of them cannot come to the hospital on their own without an escort. Children are the next priority group.

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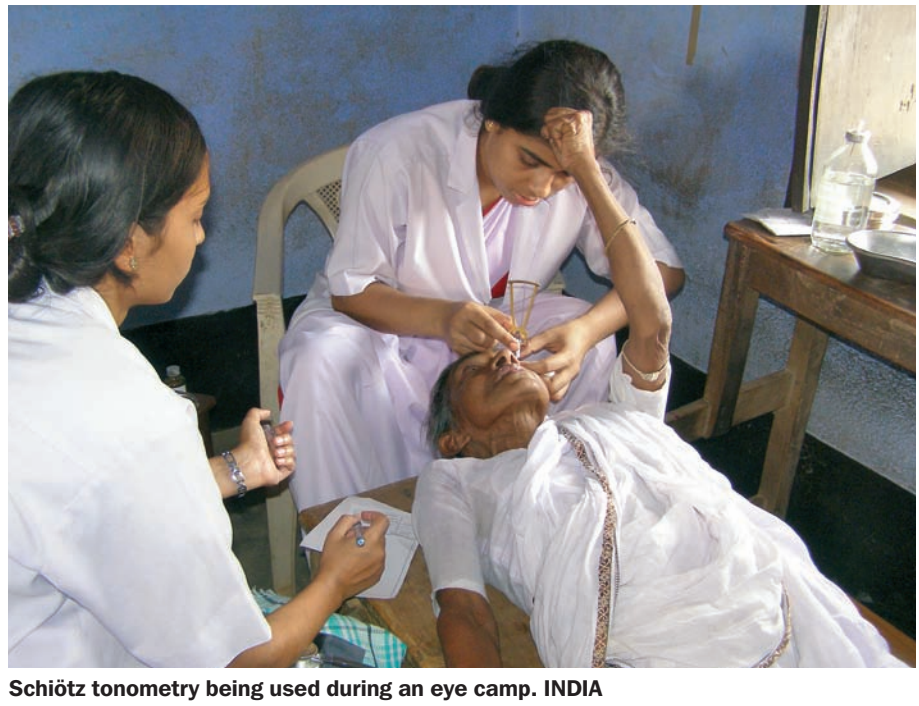
An optometrist performs refraction during an eye camp. INDIA



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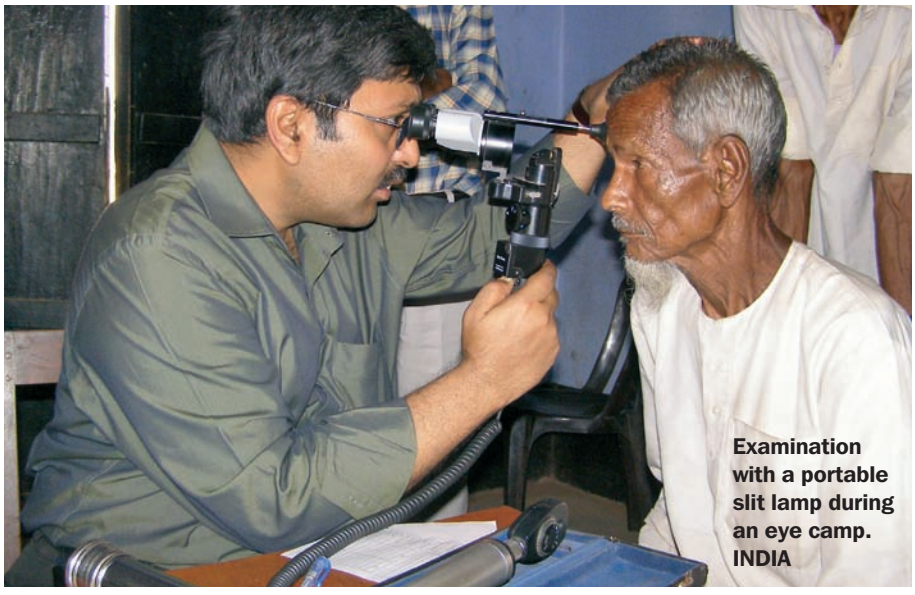
Schiötz tonometry being used during an eye camp. INDIA

Patients are registered and then their visual acuity is tested. The next step is a preliminary examination by an ophthalmologist. After that, some patients are directed for some basic investigations, such as Schiötz tonometry, lacrimal syringing, blood pressure recording and random urine sugar estimation. Some patients are directed for refraction, which is performed by the optometrists in a makeshift dark room. After this, patients are examined again by an ophthalmologist. The last step is counselling the patients who need surgery and fixing the date for surgery. We carry some essential eye drops and tablets, especially to camps in remote places, for the patients who need medical management.

The initial list of equipment included: Snellen charts, torch light, direct ophthalmoscope, Schiötz tonometer, syringing set, sphygmomanometer, reagent for estimating urine sugar, box of trial lenses, retinoscope, and dark curtains. Later on, we included a portable slit lamp, an indirect ophthalmoscope and a Perkins tonometer. This helped to improve detection of retinopathies and glaucoma.

Dr Sanjib



Examination with a portable slit lamp during an eye camp. INDIA

Examination procedure

Patients are seen by the doctor after their visual acuity has been recorded. The anterior segment is examined with a torch for all cases and a portable slit lamp is used if further detailed examination is needed. The central fundus is examined with a direct ophthalmoscope. Particular attention is paid to disc evaluation to detect glaucoma. Known diabetics undergo pupil dilation and fundoscopy to detect diabetic retinopathy. Indirect ophthalmoscopy is performed to assess the central fundus grossly through hazy media. This helps to explain the prognosis better. Detailed indirect ophthalmoscopy is only done in conditions like high myopia. Applanation tonometry is performed in known glaucoma cases and patients with suspected pseudoexfoliation syndromes. We carry common spectacle powers and spectacle frames, as well as an edging machine. Spectacles are fitted and delivered on site only. For uncommon lens powers, orders are taken and delivered later through camp organisers. Dispensing low-cost spectacles helps to recover some of the costs of outreach camps and also ensures quality.

Referral

Patients with retinopathy, pseudoexfoliation or suspicion of glaucoma, as well as children with significant refractive error and patients with other major problems are referred to the base hospital for further investigations and treatment. Patients who need perimetry, fundus fluorescein angiography and laser treatment are offered subsidised services. All referrals need skillful counselling. To encourage people to attend hospital without much delay, any visit within one month following the camp is not charged.

Helping the incurably blind

When incurably blind individuals belong to a CBR area, our field staff can offer them support such as training and social and economic rehabilitation. Those who do not belong to the CBR area are referred to the local government hospital for certification. Low-vision devices are prescribed where applicable and supplied at a subsidised cost. Information is given about training and job opportunities, social benefits, school admission, etc. Here again, sympathetic counselling is needed. We realise that we need to augment these services further and we are in a process of creating a centre-based rehabilitation programme.

Our team

One ophthalmologist is posted per expected 150-200 patients. Travel time is a major consideration. One refractionist is posted per expected crowd of 150 (roughly 50 out of 150 would need refraction). Usually, six nurses are needed for a screening camp of 300, to perform vision testing, syringing, blood pressure recording, tonometry, and to assist doctors in clinical examination (mostly explaining different procedures). One pathology laboratory technician is posted for urine or blood sugar estimation. The driver also helps with registration, vision testing and counselling. Two people look after optical dispensing. Local volunteers help to manage registration and patient flow.

Accommodation is not always easily available, so we have restricted ourselves to a radius of 170km. We try to complete the whole process in a day. Food is served by the local organisers. We reimburse Rs.20 per person (about US$0.40) for all the team members and local volunteers. Most of the organisers spend much more on local hospitality.

User fees

Many organisers do not charge the patients. They raise funds locally for that event. Our service at the camp is totally free. Some small organisers collect up to Rs.5 per patient to meet the camp expenses. For cataract surgery Rs.600 (roughly US$13) per eye is collected to meet the cost of travel and food. If it is sponsored, either by the government or other funding agencies, patients need not pay anything. These sponsorships, whenever available, are used for indigent and underserved areas.

Capacity building

Over the years, we have developed a very effective relationship with many of our local organisers. They are now our partners. To build their capacity, we organise for their members an annual training camp in primary eye care to help them identify common eye problems and refer them to the base hospital. Recently, we have started establishing Vision Centres in collaboration with successful local camp organisers.

Follow-up

Patients stay in the hospital for two days and postoperative follow-up is usually carried out after two to four weeks in the camp site. Recently, we have started to provide refraction and spectacle-dispensing services at the follow-up camp. If refraction is planned, follow-up is fixed at four to six weeks.

Looking at our performance

Gradually, attendance at the camp is increasing, as is the proportion of operable cases. We usually try to organise camps in a particular location at a particular time of the year. This helps local people to remember the time and prepare for attending the camp, and also to save some money for the surgery. This is reflected in a higher selection of operable cases.

Outreach camps are an effective way of social marketing and they also establish the credibility of an organisation in the community.

Table 1.
Performance of outreach eye camps from the Vivekananda Mission Ashram, West Bengal

Year	Number of camps	Patients attended	Advised for surgery	Percentage	Operations performed	Drop-out (%)
1997	52	8,287	1,664	20	1,294	22
1998	57	9,866	2,346	24	1,742	26
1999	64	12,251	3,562	29	2,938	18
2000	55	14,695	4,826	33	3,903	19
2001	45	13,499	5,371	40	4,699	13
2002	51	15,510	4,762	31	3,057	36
2003	47	13,999	5,317	38	3,965	25
2004	46	15,000	5,961	40	4,156	30
2005	37	12,449	6,356	51	5,077	20
Total	**454**	**115,556**	**40,165**	**35**	**30,831**	**23**