



**Rènée du Toit**

Eye Care Education and Evaluation Consultant, PO Box 891, Randwick, 2031, NSW, Australia.

power to move the range (and working distance) closer. If the middle point of the range is closer than the person's preferred working distance, try one weaker (lower) power to move the range (and working distance) further away. Test the range again, until the power is correct, i.e. the middle point of the range = working distance. Write down the power of the lenses and the near visual acuity with these lenses

- If the person cannot read N10 on the near vision chart with any power lenses, they need further eye checks.

**5 Before prescribing spectacles, note:**

- **Approximate lens powers, based on age, will not be suitable for all.** A weaker lens power than expected for a person's age, or no presbyopic lenses, might be needed if a person has myopia (short-sightedness). They should remove their distance spectacles if they want to see at a close distance. A lens power stronger than expected for the person's age may be needed if the person has hyperopia (far-sightedness), low vision, wants to work at a distance closer than 40 cm, or to see very small objects, for example, a 48 year-old man may like to make jewellery at 25 cm, so might need +2.00
- **Do not prescribe a power that is too high.** If there is no difference in the near vision when a person looks through a +0.50 stronger power, do not prescribe the stronger power. This is because if the power is stronger than needed, the person will have to hold things too close to their eyes. Also, most people would like to see at their near working distance as well as a little further away. For example, a woman may mainly want to see her sewing at 40 cm, but holds a book at 50 cm and chops vegetables at 60 cm
- **A change in spectacles** is usually only necessary if the person needs at least 0.50 stronger than their old spectacles, has received spectacles for presbyopia about two years ago, or can see better with the new spectacles than their old spectacles.

**6 Select the type of lenses** that would be best for the person. Table 3 describes the options.

**Table 3. Types of lenses**

Types of lenses	Advantages	Disadvantages
Single vision (Ready-made, near or reading spectacles)	Less expensive	The person will see clearly at near but their distance vision will be blurred when they look up
Bifocal lenses and Multifocal lenses (varifocal)	Useful if a person has a distance refractive error and presbyopia, or if they need to see clearly at distance and near	Usually more expensive than single vision spectacles for presbyopia, and may take longer to acquire

**7 Adjust the spectacles and explain how to use them.** Before the person leaves with their new spectacles:

- Adjust spectacles to fit properly and feel comfortable
- Explain the use of spectacles for presbyopia and that it may take a little time to get used to them. Tell them to come back if they experience any problems
- Explain how to look after the spectacles so that the lenses do not become scratched. Advise them to wash the spectacles daily with soap and water and wipe with a clean cloth.

**8 Remind them to return in about two years** to check if they need new spectacles to see more clearly at close distances.



**EXCHANGE**

**An inexpensive tool for routine fundus examination at primary eye care centres**

**Dr P Namperumalsamy**

Vice Chairman, Aravind Eye Care System, Madurai, 625020, India.

Conventional fundus photography uses a fundus camera. It is very expensive and found only in tertiary care eye hospitals. If changes in the retina, due to diabetic retinopathy, and changes in optic disc, due to glaucoma, can be detected early, treatment will prevent further loss of vision. To provide an inexpensive tool for the routine examination of the fundus at primary eye care centres, we use a simple attachment to mount a modern digital camera on a slit lamp. Using the slit lamp and a 78 or 90 dioptre lens we can get good fundus pictures. The arrangement is so simple that a trained paramedic can take the picture, copy it onto a computer, and transmit it to a retina specialist through email for further examination and follow up action that may be required.

The picture shown in Figure 1 was taken at the Bodinayakanur Vision Centre and was transmitted to Aravind Eye Hospital, Madurai.

The picture was taken by Dr Veerabhadra Rao (Retina Fellow) while examining a patient at the Vision Centre. The attachment described was built in the instruments maintenance laboratory, with Dr Rao giving the necessary suggestions for improvement at various stages of development.



**Figure 1. Fundus photograph taken with a digital camera**

Veerabhadra Rao

**Knowledge and attitude of general practitioners towards diabetic retinopathy practice in South India**

**Rajiv Raman, Pradeep G Paul, Padmajakumari R, Tarun Sharma**

Diabetic Retinopathy Project, Sankara Nethralaya, 18 College Road, Nungambakkam, Chennai, 600006, India.

Email: [tarusharma@eth.net](mailto:tarusharma@eth.net)

**Introduction:** General practitioners (GPs) are important members of the diabetic care network. Awareness levels of general practitioners are vital in planning strategies to prevent diabetic blindness. The present study was done to assess the knowledge, attitudes and practices (KAP) of urban GPs regarding the screening and management of diabetic retinopathy.

**Research design and methods:** A questionnaire was designed to assess the GPs' KAP in handling diabetic retinopathy. Questions related to referrals, direct ophthalmoscopy, and barriers to diabetic retinopathy screening. Urban GPs from Chennai were contacted through telephonic interview. GPs' telephone numbers were traced from the Yellow Pages and a random digit dialing strategy was used. Telephonic survey was done for 450 telephone numbers of GPs.

**Results:** Of the 450 telephone numbers of GPs that were dialled, only 187(41.6 per cent) responded to the questionnaire. 52 per cent of the GPs declined to answer questions. Among those who responded to the call, only 85 per cent (n =159) completed the tele-survey completely. Most of the GPs could not be contacted in the morning, as they were busy with their practice. Among those who successfully completed the survey, 46.6 per cent (n=74) of the

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GPs responded to the tele-survey after they were called more than five times. 33.4 per cent (n = 53) of the general practitioners responded after three to five calls and the remaining 20 per cent responded immediately.

31.3 per cent (n=50) feel that diabetics should undergo an eye examination every six months and 53.3 per cent (n=85) feel that diabetics should undergo eye examination every year. 15.4 per cent felt that eye examination every two years is sufficient for diabetics. Ophthalmoscopy was done by 1.3 per cent (2/159) of the GPs. Of the two, one GP performs ophthalmoscopy with dilation while the other performs it without dilation. The reason stated for not dilating was lack of time. Almost all GPs said that they would refer a patient with diabetes to an ophthalmologist. 84 per cent of the practicing physicians were aware of laser photocoagulation as a treatment modality for diabetic retinopathy.

54 per cent of GPs were aware of annual dilated eye examination referral guidelines for diabetics. Regarding attitudes for screening for diabetic retinopathy, only 1.3 per cent of GPs were using direct ophthalmoscope. Among them only 50 per cent were practicing dilated direct ophthalmoscopy. Barriers for doing diabetic retinopathy screening by general practitioners were lack of time, lack of ophthalmoscopes and lack of training.

**Discussion:** This study shows the need for training GPs about diabetic retinopathy and its detection with direct ophthalmoscope. Barriers for dilated eye examination, as perceived by GPs, need to be addressed. McCarty et al.<sup>1</sup> reported that lack of dilating drops in the practice, lack of confidence in detecting changes, concern about time taken and fear of precipitation of angle-closure glaucoma with their patients were some of the barriers expressed by GPs. Knowledge of the guidelines is another important factor to consider. Residency programmes should focus on providing more exposure to ophthalmoscopy practice among GPs, compared to the current low levels of exposure of only a few hours.

#### References

1. McCarty et al. Management of diabetic retinopathy by general practitioners in Victoria. *Clin Exper Ophthalmol* 1987, 29:12-16.

## Getting over the histopathology barrier

**Michael Ekuoba Gyasi** and **Oscar Debrah**

Bawku Presbyterian Hospital, Bawku, Upper East Region, Ghana.

In many developing countries, specialised laboratory services are simply non-existent. Where they exist, they are usually limited to large hospitals. The distance and the cost of accessing such specialised services, place enormous barriers to remote eye care facilities and the patients they serve. In Ghana, getting histopathology tests done could take as long as three months. In our case, the patient has to send it to the nearest facility, located some 600 kilometres away. Such a situation meant that most ophthalmic specimens simply never saw the microscope at all. That is why we felt relieved when a global mail was sent by the Vice President of our Ophthalmological Society, introducing members to a free histopathology service at the Royal Hallamshire Hospital in the UK.

Through such collaboration, we now have a free and reliable ophthalmic histopathology service with results delivered within a few days through email. Packaging materials and guidelines are provided free, with only outward postage paid by the beneficiary institution.

Visiting the centre recently, however, I realised that only a fraction of clinics in Africa have taken advantage of this facility, despite the obvious benefits derived from histopathologic evaluations.

This International Ophthalmic Histopathology Service, is accessible to all developing countries. The centre can be contacted through the following address:

Dr Hardeep Mudhar, Ophthalmic Pathology, Department of Histopathology, E-Floor, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF, UK. Tel: (+44) 0114 2268967.

Email: [hardeep@mudharh.fsnet.co.uk](mailto:hardeep@mudharh.fsnet.co.uk)

## The importance of shielding the eye in referrals of ocular injuries

**Tontu Zik**

Ophthalmic Clinical Officer, Mbingo Baptist Hospital Eye Department, Cameroon.

Email: [MBHCameroon@aol.com](mailto:MBHCameroon@aol.com)

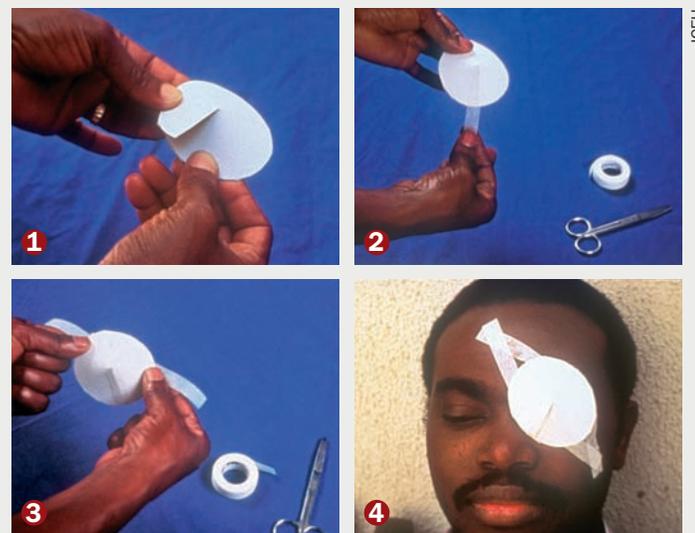
Ocular injuries are common in the northwest province of Cameroon. Here, the majority of the people are farmers. In 2004, 31 patients with ocular injuries were seen in Mbingo Baptist Hospital Eye Department. As of November 2005, 17 patients have been seen. Injuries to the lids are not included. Causes of these injuries include tree branches and leaves, lacerations from knives and cutlasses, pellets from locally made guns used during traditional ceremonies, stone fragments injuring the eye when cracking stones without wearing protective spectacles, sticks and stones when children play.

The majority of people live far away from an eye hospital. Some villages require eight hours of trekking to reach a motorable road to the hospital. The visual prognosis after management of an ocular injury will not only depend on the extent and location of the injury, but also on what happens during transportation to the hospital. The majority of our roads are rough, untarred and dusty. These expose the eye, especially an open injury, to further trauma and foreign bodies. Further injury to the eye during referral could be reduced by the use of an eye shield.

Making an eye shield is easy and inexpensive. It can be made from cardboard or firm paper. Health centres and health posts found in the villages readily have this, for example, from medication boxes. Where available, used x-ray film can also be used.

Our community outreach programme is in partnership with the community-based rehabilitation programme of the Cameroon Baptist Convention Health board, sponsored by Christoffel-Blindenmission (CBM). Their field workers and volunteers see and refer eye patients in the community. Every year, refresher courses are organised, where they are taught, amongst other things, how to make an eye shield.

**Figure 1. How to make an eye shield**



ICEH

## 2006 themes

The themes planned for 2006 include:

**Outreach: beyond the clinic** (June 2006)

**Finding the cataract patient** (September 2006)

**Glaucoma** (December 2006).

Readers are invited to submit 500 word submissions on any of these themes, or any other topic relevant to community eye health. If you want your submission to be considered for a particular theme, please ensure that I receive it at least one month before the publication date.

Victoria Francis, Editor, *Community Eye Health Journal*