

## Aravind's eye-saving van

*One and a half years into implementation the Diabetes eye care project in India is demonstrating impressive results in the joint efforts to reduce blindness resulting from diabetes (diabetic retinopathy). The latest addition is a Mobile Screening Unit enabling diabetic detection and diabetic retinopathy screening in rural areas around Tamil Nadu. The Mobile Screening Unit offers advanced eye screening and professional advice via satellite connectivity provided by the Indian Space Research Organisation (ISRO).*

Early detection and timely treatment is vital to reduce the risk of diabetic retinopathy but with a limited access to specialist help in India, detection and treatment have generally been the prerogative of a limited group of the Indian population. Over the last 20 years diabetes has as a result become one of the most common causes of blindness in India, moving up from number 17 to 6 in the list of causes of blindness.

Joining forces, the World Diabetes Foundation (WDF), Aravind Eye Hospitals, Lions Club International and the Government of India are, however, about to change that. 202 “Diabetic detection & Diabetic retinopathy screening “ camps have been held over the last one and a half years bringing the total population screened for diabetes to 40,272 of which 9,450 have been identified as diabetic. 1,128 cases of diabetic retinopathy have been found with 777 patients subsequently undergoing laser photocoagulation treatment at the tertiary centre of the Aravind Eye Hospital- many of them for free. While the project has financed the equipment component of the endeavour, Aravind Eye Hospitals take care of all running costs associated with the operations of the mobile screening unit, ensuring long term sustainability after the project ends.

## **Focusing on the rural patients**

With the camps successfully up and running the natural next step was to focus on a method for extending the outreach of the diabetes eye care campaign to the more remote areas of Tamil Nadu. The solution was a Mobile Screening Unit to serve the rural areas of Tamil Nadu. The mobile unit is dedicated to diabetic retinopathy screening, but includes facilities for screening all types of eye disease. The advanced screening unit both enables doctors to get exposure to rare and difficult cases and saves patients the time and resources associated with travelling to the nearest hospital.

The van works as an initial eye screening station with the equipment to treat mild to moderate cases of diabetic retinopathy. The van has a team consisting of doctors, optometrists, paramedics and a satellite technical person. With a Reading and Grading centre based at the Aravind Eye Hospital in Madurai the team is able to send images to the centre and have them graded by trained graders and validated by retina specialists. The images are then followed-up by an expert opinion with a diagnosis and treatment procedures for the patient. The information transferring is conducted via a satellite connection provided for free by the Indian Space Research Organisation (ISRO) making the on the spot screening and diagnosis possible.

The Mobile Screening Unit is currently used for diabetes retinopathy camps (DR camps), general camps and videoconferencing when a direct consultation with the hospital doctor is required. Since the establishment in June 2004 the van has already been used for nine DR camps and two general camps with a total of 93 diabetes patient being identified. 81% of the diagnosed patients have received direct treatment in the van proving the time and cost saving potential of the concept. 18 patients have so far been referred to the Aravind Eye Hospital in Madurai for further treatment.

The Mobile Screening Unit aligns with the Aravind Eye Hospitals' model of free eye care. In the aim to reduce blindness resulting from diabetes Aravind has employed a unique fee system that will ensure that all patients are accorded the same care and high-quality service, regardless of their economic status. The system enables Aravind to provide free eye care to one third of its patients from the revenue generated from the other two thirds of its paying patients. The diabetes eye care project in Aravind is supported by the World Diabetes

Foundation until March 2006 where an estimated 2750 diabetes patients will have received laser treatment and 200 doctors and medical specialists will have received training in diabetes and related eye complications.



WORLD **DIABETES** FOUNDATION

Lottenborgvej 24 , DK-2800 Kgs. Lyngby , Denmark  
Phone +45 44 42 74 38, Fax +45 44 44 47 52