

The Kariapatti pediatric eye evaluation project: baseline ophthalmic data of children aged 15 years or younger in Southern India

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Purpose: To estimate the prevalence of ocular morbidity among children of rural southern India before developing a service delivery model for community-based pediatric eye care.

Design: Population-based cross sectional study.

Methods: Trained field-workers performed door-to-door enumeration in 74 randomly selected villages of the Kariapatti block in southern India to identify children aged 15 years or younger and performed visual acuity measurements using Cambridge crowded cards and external eye examination with torchlight. Pediatric ophthalmologists further examined subjects with ocular problems identified by the field-worker. The clinical team performed repeat visual acuity measurements with Cambridge crowded cards, refraction, slit-lamp anterior segment examinations, and dilated posterior segment examinations at the screening site. The ophthalmologist identified and recorded one major cause for each visually impaired eye.

Results: Field-workers screened 10605 (94.6%) of 11206 children enumerated, and identified 1441 (13.6%) children as requiring further clinical examination. An additional 449 children identified as normal by the field-worker were randomly chosen for repeat examinations at the screening sites. In all, 1578 (83.5%) of these 1890 children were examined at the screening site. According to World Health Organization criteria, 6.2 of 10000 children were blind; 42.9% of this blindness was potentially avoidable. Refractive errors (0.55%, 95% confidence interval: 0.41, 0.69) and strabismus (0.43%, 95% confidence interval: 0.30, 0.55) were the major ocular morbidity in this population.

Conclusions: Developing an appropriate service delivery model for this region will require a balance between the relatively low prevalence of morbidity and blindness and the need for service in this population.

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Residual debris as a potential cause of postphaco-emulsification endophthalmitis

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Aim: To examine residual debris within sterilised instruments prior to cataract surgery.

Methods: (i) Flushings from 32 sets of phacoemulsification instruments, sterilised according to hospital routine protocols, were taken preoperatively and analysed by scanning electron microscopy (SEM).

(ii) A total of 16 sets of flushings from a different institute were collected – with separation of samples collected from phacoemulsification and those from irrigation-aspiration (IA) instruments – and analysed in the same way.

(iii) A total of 15 sets of flushings were collected from instruments where an automated flushing system was used prior to sterilisation.

Results: (i) In the first study, 62% were clean, 16% were moderately contaminated and 22% were severely contaminated. Various contaminants were identified including lens capsule and cells, man-made fibres, squamous cells, bacteria, fungal elements, diatoms, red blood cells and proteinaceous material.

(ii) In the second study, the results were similar and contamination of both phacoemulsification and IA instruments was shown.

(iii) The third study showed that although a decrease in contamination followed automated flushing, contamination was not completely eliminated.

Conclusions: Although all equipment had been sterilised, pyrogenic material was still present. These findings emphasise the importance of meticulous cleaning of all surgical equipment in which biological debris can remain.

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The magnitude and cost of global blindness: an increasing problem that can be alleviated

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Purpose: To identify the potential effect on global economic productivity of successful interventions, that are planned as part of the 'VISION 2020: The Right to Sight' initiative. The initiative aims to eliminate avoidable blindness.

Design: This study used economic and epidemiologic modeling.

Methods: Existing data and assumptions about blindness prevalence, national populations, gross domestic product (GDP) per capita, labor force participation, and unemployment rates were used to project the economic productivity loss associated with unaccommodated blindness.

Results: Without extra interventions, the global number of blind individuals would increase from 44 million in the year 2000 to 76 million in 2020. A successful VISION 2020 initiative would result in only 24 million blind in 2020 and lead to 429 million blind person-years avoided. A conservative estimate of the economic gain is \$102 billion.

Conclusions: The VISION 2020 initiative has the potential to increase global economic productivity.

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Seventh General Assembly of IAPB: Rescheduled Venue and Dates

The Seventh General Assembly of the International Agency for the Prevention of Blindness (IAPB) will now be held in **Dubai from 20–24 September 2004.**

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