Quality assessment of cataract surgery in regions with low follow-up rates

Cataract accounts for half of all blindness worldwide. WHO statistics from 2004 suggest that about 18 million people were so visually impaired by cataract that they were unable to walk around independently, with poor and socially marginalised people disproportionately affected. Cataract surgery is now a highly effective intervention, restoring visual function, improving quality of life for patients, and increasing household incomes. In the absence of any effective, proven strategy for prevention of cataract, surgery remains the mainstay of management. The effective delivery of cataract surgical services to the many people who need them faces numerous challenges, including low awareness, fear of surgery, and fatalistic attitudes to the irreversibility of blindness in old age.

The quality and patient experience of surgery are increasingly attracting attention as important determinants of uptake and measures of the performance of coordinated cataract surgical programmes. Competent surgeons are a key component in the delivery of high-quality services. Inadequate numbers of surgeons who can independently do surgery of acceptable quality is a serious practical obstacle in some regions. Monitoring the quality of cataract surgery training programmes largely depends on accurate assessment of visual outcomes. However, little research has investigated practical, effective approaches to assess surgical quality in developing countries, where assessment of outcomes is often challenging because of poor follow-up.

Nathan Congdon and colleagues investigated the validity of using early outcomes of all cases, or of using late outcomes of only the patients who returned for final follow-up assessment, to monitor final overall visual outcomes of cataract surgery. They report that early postoperative visual acuity, measured within 3 days after surgery, is closely correlated with vision assessed at final follow-up visits (Spearman’s \( r_s = 0.74 \), \( p = 0.0001 \)). Additionally, late visual outcomes (measured at 40 days or more after surgery) of those who returned for postoperative follow-up were representative of overall final outcomes (\( r_s = 0.86 \), \( p = 0.0001 \)). This large study, which covered an impressive 40 centres across 11 developing countries in Asia, Latin America, and Africa, is a welcome addition to the published work on this topic. These findings are especially important for planners and designers of blindness-prevention programmes.

The goals of Vision 2020—the global initiative to eliminate avoidable blindness by 2020—include increasing cataract surgical rate and cataract surgical coverage. However, quality must not be sacrificed for quantity. The final visual outcome matters, both to the individual patient and to the community. The quality of outcomes are important in maintaining and enhancing surgical uptake within programmes. Despite the strong evidence provided by Congdon and colleagues for the use of early postoperative visual outcome as a surrogate for the assessment of surgical quality, the work does not support complacency—the importance of mid-term and long-term postoperative care cannot be denied. Improvements in follow-up rates are needed for sound reasons. Careful monitoring at follow-up visits help clinicians to detect and treat postoperative complications in a timely manner. Follow-up examination at later stages after cataract surgery also allows for more accurate assessment and correction of refractive error, which has been shown to result in visual impairment in a substantial proportion of patients after cataract surgeries. Mid-term or long-term follow-up is also of importance for patients with intraoperative or immediate postoperative complications, which are not uncommon for junior surgeons in training programmes.

The proportion of patients in the study who complied with optimum follow-up in different geographical areas ranged from 27% in China to 93% in Latin America, which is suggestive of the great variation in postoperative care in different developing countries. The postoperative follow-up rates in China, India, and Indonesia are especially worrying. Studies of barriers and challenges to postoperative care after cataract surgery suggest the potential for improvements with modest financial compensation, reminders after the surgery, and preoperative education about the importance of follow-up visits. Congdon and colleagues have also shown the effects of methods such as telephone calls and transportation subsidies...
in improving the follow-up rate. Another noteworthy result of the study was that postoperative refraction did not improve the correlation between early and late visual outcomes in patients who underwent small-incision cataract surgery or phacoemulsification, the two procedures that represent the mainstay of modern cataract surgery. This finding will be valuable for those who plan health-care expenditure in areas where neither qualified optometrists nor automated refraction devices are available.

Methods or interventions shown to be effective in research can end up as utopian dreams without solid implementation. Close monitoring is warranted in blindness prevention programmes in developing countries to ensure good performance of service providers in maintaining the quality of postoperative care. Further strategic planning is also needed to actively improve postoperative follow-up in these settings. Despite all the difficulties of real-world implementation, apart from adoption of early postoperative visual acuity as a surrogate, additional strategies need to be developed to monitor surgical quality in ways that are relevant to both individual patients and to the wider communities in developing countries.

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We declare that we have no conflicts of interests.