BENCHMARKING
Audits yield valuable insight for organisational and individual improvement

by Howard Larkin in Milan

Comparative data from the nearly one million cataract cases recorded in the European Registry of Cataract and Refractive Surgery Quality Outcomes (EUREQUO) helps both surgery centres and individual surgeons assess and improve their performance, presenters told the XXX Congress of the ESCRS. From experienced consultants to resident trainees, the data help identify not only opportunities for upgrading surgical skills but also differences in populations that may influence patient needs and outcomes.

“EUREQUO provides a simple, uniform method of recording pre-operative, intra-operative and post-operative data. It allows comparison on a national and international level, and is a valuable tool in our effort to improve our surgical results,” said Lampros Lamprogiannis MD, of the 2nd Department of Ophthalmology, Aristotle University of Thessaloniki, Papageorgiou General Hospital, Greece, which is headed by Prof Stavros Dimitrakos.

The Anterior Eye Department of the clinic, headed by Assistant Prof Ioannis Tsinosopoulos, joined EUREQUO in March 2012. A first analysis of the results was presented, comparing results of the clinic with national and international data.

On average, cataract patients presenting at Papageorgiou had worse corrected visual acuity than the international figures, with 80 per cent below 0.5, or 20/40, and 21 per cent at or below 0.1, or 20/200, compared with 52 per cent and 12 per cent internationally, and 70 per cent and 24 per cent in Greece.

“It is clear that patients in our hospital choose to be operated on much, much later,” Dr Lamprogiannis said.

Rates of pseudoexfoliation were also substantially higher at Papageorgiou, 6.59 per cent, and in Greece, 7.93 per cent, than the international figure of 0.41 per cent.

“When it comes to risk factors in cataract surgery, the main problem we have to deal with is pseudoexfoliation,” said Dr Lamprogiannis, noting that the present findings are consistent with previous studies that show a high prevalence in Greece.

All Papageorgiou cataract patients received phaco and posterior chamber IOLs, as did more than 99 per cent of patients internationally. Dr Lamprogiannis reported that acrylic hydrophobic lenses were implanted in 98 per cent of patients, compared with 64 per cent nationally, topical anaesthesia was used in 97 per cent compared with 44 per cent internationally, and 5.56 per cent of patients were admitted as inpatients, far less than the 43 per cent reported nationally.

Dr Lamprogiannis noted that the complication rate in the 2nd Department of Ophthalmology, at 6.46 per cent, was somewhat higher than for Greece, at 5.71 per cent, and much higher than internationally, at 2.15 per cent. Possible reasons for the higher rate could include the higher incidence of pseudoexfoliation and advanced cataracts, he said. The clinic also has a higher proportion of older patients, and 23 per cent of procedures are done by residents, which may also increase complications.

Despite these complications, postoperative uncorrected visual acuity results are similar to national and international outcomes, with 25 per cent of clinic patients achieving 0.8, or 20/25, or better and 71 per cent achieving 0.5 or better, compared with 24 per cent and 56 per cent nationally, and 26 per cent and 61 per cent internationally. Short-term post-surgical complication rates are also comparable. The clinic also uses premium IOLs more often, with 11 per cent of patients receiving them, of which eight per cent were toric and three per cent multifocal. That compared with two per cent premium lenses of all types nationally and 0.5 per cent internationally.

“It makes it easy to conduct audits of surgical outcomes, and the results can improve treatment and patients’ quality of life,” Dr Lamprogiannis said of his first EUREQUO comparison. “In Greece we are sometimes accused of not counting. So we try to counteract that.”

Surgical training
EUREQUO also provides valuable benchmarking information for surgeons in training, said Sonia Manning MD, of St Vincent’s University Hospital and Royal Victoria Eye and Ear Hospital, Dublin, Ireland. A senior ophthalmology trainee, she used the system to track her progress toward published performance guidelines based on EUREQUO data (Lundstrom M et al. J Cataract Refract Surg 2012 Jun; 38(6): 1066-93).

Dr Manning prospectively entered into EUREQUO data for 316 consecutive cataract operations over a 20-month period from January 2011 through August 2012, during which she worked at three training hospitals in Dublin. She then compared her results with those of other participants in Ireland and Europe.

Pre- operatively, Dr Manning found that her patient mix had somewhat worse best corrected visual acuity and more complicating factors than in Ireland or internationally. Only 23 per cent of her patients achieved 6/12, or 20/40, compared with 37 per cent nationally, and 48 per cent internationally. Conversely, 22 per cent of her patients had corrected vision of 6/60, or 20/200, or worse, compared with 16 per cent nationally, and 12 per cent internationally.

The rate of co-existing eye disease, including AMD, glaucoma and diabetic retinopathy, was 36 per cent, compared with 26 per cent and 30 per cent, respectively nationally and internationally. Twenty-four per cent of the patients had co-morbidity rendering surgery technically more difficult, including white cataract, pseudoexfoliation and corneal opacities. Nine per cent of cases had small pupils, requiring mechanical dilation, compared with five per cent nationally and three per cent internationally.

Intra-operatively, 99.7 per cent of Dr Manning’s patients received phacoemulsification, similar to national and international rates. Dr Manning had seven posterior capsule ruptures for a rate of 2.22 per cent, higher than the 1.33 per cent for Ireland and 1.17 per cent internationally. She also reported two dropped nuclei (a rate of 0.63 per cent, also higher than the 0.28 per cent national and 0.04 per cent international rates, respectively).

With 92 per cent of all patients and 98 per cent of patients without ocular co-morbidities achieving 6/12, or 20/40, or better corrected vision, Dr Manning’s visual acuity outcomes were comparable to national and international results. However, her postoperative complication rates were somewhat higher than acceptable published benchmark standards. She had no cases of posterior capsule opacification, endophthalmitis or elevated intraocular pressure at a mean follow-up of 20 days following surgery.

EUREQUO made ongoing self-audit easy and helped me identify areas needing improvement and focus on goals, Dr Manning said. “It proves to myself, my trainers and training body that I am on my way to achieving proposed benchmark standards. I recommend it to all trainees in cataract surgery.”


EUREQUO

JournalWatch

Aspirin AMD Risk?

Regular aspirin use may be associated with an increased risk of developing age-related macular degeneration (AMD), a new study suggests. Australian researchers prospectively analysed data from a population-based cohort with four examinations during a 15-year period (1992-1994 to 2007-2009). They found that regular aspirin users were more likely to have incident neovascular AMD. The 15-year cumulative incidence of AMD was 9.3 per cent in users and 3.7 per cent in nonusers. This remained true after adjustment for age, sex, smoking, history of cardiovascular disease, systolic blood pressure and body mass index. Moreover, the association showed a significant dose-response effect. The report has major implications for millions of patients who take aspirin for cardioprotection. In a related commentary, Sanjay Kaul MD comments that the strength of evidence is not sufficiently robust to be clinically directive. He notes that these findings are, at best, hypothesis-generating that should await validation in prospective randomised studies before guiding clinical practice or patient behaviour.