



## Identify and Manage Preoperative Causes of Wrong IOL Placement

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Every ophthalmologist has heard stories of the wrong eye being enucleated or the wrong procedure being performed. The Joint Commission's Universal Protocol (UP)—preoperative verification, site marking, and time-out—was developed to prevent such cases. While the UP is capable of catching 85% of “wrong” errors in ophthalmic procedures performed in hospitals and surgery centers, it does not address the cause of wrong IOLs, the most frequent type of surgical confusion in ophthalmology.<sup>1</sup> As John Simon's study shows, 25% of IOL mistakes originate in the physician's office.

Q When I examined my cataract surgery patient at his first postoperative visit, his refractive outcome (+3 D) was not what I had expected. I reviewed the medical record and discovered that I had implanted the wrong IOL. I informed the patient of the error, apologized, offered to refund the cost of the procedure, and disclosed the treatment options. What else should I do?

A Your honest and compassionate discussion with the patient will go a long way to helping him through the postoperative period. Studies show that in addition to a truthful accounting and an apology, patients also want to know that you will take steps to protect others from the same outcome.<sup>2</sup> One method proposed by patient safety experts is to inform your patient that you will conduct an event analysis that exposes not only the error that occurred in this instance, but potential mistakes in the sequence of care that could culminate in choosing or implanting the wrong IOL in another patient.

Q I already know what happened! My new technician made a mistake during the A scan. Should I fire her?

A While firing an employee involved in an error that harmed a patient is an understandable initial reaction, it does not address your role in training her, may send your staff the wrong message, and could lead to the loss of your best ally in preventing future errors. Your technician no doubt feels as badly as you do about this outcome. Rather than allowing her to shoulder the entire blame and punishing her, you can show staff that you take ultimate responsibility for the care provided in your office, as well as for hiring, training, and supervising them. Indeed, you can show them how to use mistakes as a learning opportunity. Call a meeting and explain that wrong IOLs are the most frequent type of error and cause of malpractice claims in cataract surgery. Ask for their assistance in reviewing office practices. Ask the technician to be part of the effort to analyze the event. Invite her to tell her story, and then explain how you dealt with the patient. You and your technician will thus demonstrate your commitment to the patient, the staff, and to improving the quality of your care.

Q What are the next steps in the event analysis?

A Ask your staff to map out the entire office-based sequence of events involved in choosing and ordering an IOL. You might want to have two teams, one that focuses on the clinical process (A scan and choice of IOL) and one that studies the administrative sequence of events (transferring the physician's order to the ASC or hospital, informed consent, etc.). Experts suggest establishing two timelines: one for how the process is actually done and one for how it should be done.<sup>3</sup> Once the team is sure that all

of the steps are noted, it brainstorms on how this part of the sequence can go wrong, thus beginning the “hazard analysis” part of the review, which also includes determining the effect, severity (impact on the patient), probability, and detectability of the “failure.” The hazard analysis helps the team determine which errors in care constitute critical failures and these become the focus of your efforts to design a safer process.

Q Has anyone analyzed “wrong IOLs” this way?

A I have not seen a formal failure mode and effects analysis, but there are several studies of wrong IOLs. Dr. Simon's article on surgical confusion cited earlier explains some common causes, and the AAO/ASORN and American Associate of Eye and Ear Hospitals have identified ways to prevent wrong IOL. In addition to ensuring adequate training of personnel and calibration of equipment, the AAO/ASORN/ASEEH report suggests that you instruct your staff to test both eyes and then compare the results of each eye to itself and to the other eye (in the same eye, the difference between the two scans should be  $\leq 0.2\text{mm}$ , while between eyes it should not exceed  $0.3\text{mm}$  unless the patient is known to have anisometropia).<sup>4</sup> Verify the results of the IOL Calculation Report and the formula used to pick the IOL yourself, and take a copy to the OR. Assign two staff members to compare the results to the prep orders sent to the ASC.

1. Simon JW, Ngo Y, Khan S, Strogatz D. “Surgical Confusions in Ophthalmology,” *Arch Ophthalmol*. 2007; 125(11): 1515-22.

2. Vincent C, Young M, Phillips A. “Why Do Patients Sue Doctors? A study of patients and relatives taking legal action,” *The Lancet*. 1994; 343: 1609-13.

3. Stow J. “Using Medical-Error Reporting to Drive Patient Safety Efforts,” *AORN Journal*. 2006; 84(3): 406-424.

4. AAO/ASORN/ASEEH. “Minimizing Wrong IOL Placement,” *Patient Safety Bulletin* #2. Iss 2001, rev 2005. Available at [www.aao.org](http://www.aao.org) and [www.asorn.org](http://www.asorn.org).