

OFFICE-BASED SURGERY

Examining the case for streamlining cataract surgery through office-based operating—when it makes sense and what it requires.



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STREAMLINING WITHOUT ROMANTICIZING

BY JOHN A. HOVANESIAN, MD

I am an advocate for office-based surgery (OBS) in cataract practice, but I do not perform it today. My practice has a productive, well-run ambulatory surgery center (ASC), and in that context, the incentive to move is modest (for more, see *Why I Have Not Flipped ... Yet*). That said, I consider OBS part of cataract surgery's future. When we built our new 27,000-square foot facility at Harvard Eye Associates, we deliberately designed the LASIK suite—heating, ventilation, air conditioning, electrical, the whole infrastructure—to support an OBS conversion if and when we proceed.

WHERE OBS MAKES STRATEGIC SENSE

In my view, two scenarios drive OBS adoption:

- **No. 1: You do not have an ASC and do not plan to build one.** Avoiding the multimillion-dollar capital outlay is a rational incentive to set up a lean, office-based suite.
- **No. 2: You practice in a certificate of need state.** The regulatory barrier adds friction to ASC development. OBS circumvents that hurdle.

If you already have a well-run ASC and you are not constrained by certificate of need, the motivation is less obvious. To my mind, OBS should solve a specific problem—cost, access, or throughput.

PATIENT FLOW: CUT THE FRICTION

From the patient's perspective, OBS removes a series of barriers. A question I hear routinely from cataract patients is, "When can we do it?" In an office setting, scheduling is simpler because you are working with your own staff, your own space, and fewer practical barriers. Theoretically, you can look at your watch and say, "How about in 15 minutes?" That statement is hyperbolic, but it captures the point: intake is lighter, coordination is tighter, and the path from decision to procedure is short.

Oral sedation changes the preoperative equation. Without intravenous (IV) anesthesia, patients do not need to fast overnight, which reduces medication disruption, anxiety, and blood sugar swings. Also avoided is the requirement of medical clearance visits that add time, cost, and opportunities for information gaps. Postoperatively, the experience feels less like a day at the surgery center and more like having had a dental procedure. Patients still need a driver—oral sedation is still sedation—but the entire encounter is simpler.

WHAT A LEAN OBS SETUP REQUIRES

You do not need a full anesthesia footprint to deliver safe, efficient office-based cataract surgery. At a minimum, a blood pressure cuff and pulse oximeter (which also provides the patient's heart rate) are required for monitoring. Core equipment includes a phaco machine, standard instrument trays, a microscope, and a bed/gurney that functions as an OR table. Most microscope vendors offer streamlined, small-footprint models that fit office spaces without compromising optics. Final needs are simple sterile tables and drapes (it is not necessary to drape the entire patient) plus reasonable storage for IOL consignments and disposables.

The absence of formal anesthesia machinery reduces capital expense and frees square footage. The sustainability angle is real: simpler draping and right-sized equipment align with a broader shift toward reducing waste in ophthalmic ORs.

Sedation That Fits the Setting

Colleagues operating in OBS suites have told me that oral sedation

WHY I HAVE NOT FLIPPED ... YET

My cataract practice has not begun offering office-based surgery (OBS) yet for three reasons. First, our ambulatory surgery center is excellent, with systems and people I trust. Second, our region does not impose regulatory barriers that would make OBS the path of least resistance. Third, I do not move for the sake of novelty; I move when the clinical, operational, and financial vectors all point the same way.

That is why we built our new office to be ready for OBS. When the calculus shifts, I want the conversion to be a construction project. When the signal outweighs the noise—clinically and operationally—we will flip the switch.

is sufficient for the vast majority of patients; IV lines can be placed selectively if a situation warrants it. Sublingual options such as the MKO Melt (ImprimisRx/Harrow) have been popular in OBS settings for predictable onset (on the order of 10–15 minutes) and adequate anxiolysis without oversedation. The ketamine component helps patients steer toward the light, so to speak; they tend to remain calm and cooperative without drifting into the abrupt, counterproductive arousals that can occur after deeper IV sedation.

The avoidance of narcotics is another upside. In many ASCs, fentanyl has been a workhorse. This drug is effective but comes with baggage—addiction risk in vulnerable patients and the all-too-familiar postoperative nausea and constipation. An oral, nonnarcotic regimen fits the OBS ethos: enough sedation to facilitate surgery, minimal physiologic perturbation, and rapid recovery.

ECONOMICS AND POLICY

There is a clear policy trend toward alternative payment models that encourage the migration of appropriate procedures out of high-cost sites of care. When formal anesthesia is eliminated,

CMS' costs fall; some of those savings can, in theory, be reallocated to the physician practice.

WHAT OBS IS—AND IS NOT

OBS is not a moral stance against ASCs. It is a workflow alternative that compresses the care pathway for properly selected cases with a tighter equipment list, minimal sedation, and familiar surroundings. If you already run a high-volume ASC, your bar for change should be high. If you do not have an ASC—or cannot expand because of certificate of need constraints—OBS may be the most rational path to a streamlined, patient-centered service.

BUILD FOR NOW, FUTURE-PROOF FOR LATER

I planned our LASIK suite to be OBS-ready—heating, ventilation, air conditioning, power, layout—because the trend line is obvious even if the timing is not. If you are renovating or expanding your practice, engineer the option: create a room that can flex between refractive or other clinical use and OBS use and ensure sufficient storage for lenses and sterile inventory. This will preserve capital while keeping the door open for a fast pivot later.

WHY OFFICE-BASED SURGERY WORKS

BY DAGNY ZHU, MD

OBS provides the premium, cash-pay experience my patients expect and

deserve. It is more cost-effective than an ASC and allows us to offer more

competitive pricing for out-of-pocket services (eg, refractive lens exchange,

premium cataract packages, phakic IOLs). Compared to IV methods, oral sedation works better in many ways. We attempted to return to IV sedation, but patients became nauseated, complained about the fasting protocol, feared needles, and often had poor venous access; some were oversedated during surgery and would wake suddenly midway through the case. Given the cost and shortage of anesthesiologists, we switched back to oral sedation after 1 month.

PATIENT SELECTION

After I gained experience with OBS and became comfortable with it, almost all patients became appropriate candidates. In general, patients with multiple or significant comorbidities can be monitored more safely under anesthesia in an ASC. However, for many such patients—particularly those who are uninsured or underinsured—the primary medical risk stems from the anesthesia itself (whether in an OBS suite or an ASC). For these individuals, I have safely performed cataract surgery in my OBS suite without any oral or IV sedation.

I do not formally screen these patients beyond obtaining their medical history and checking their vital signs preoperatively. The only patient on whom I have declined to perform surgery in the OBS suite had a nanophthalmic eye (axial length of 16 mm) because I felt it was safer to administer IV mannitol preoperatively in an ASC to decrease the risk of posterior pressure. I have operated on numerous brunescient cataracts in monocular patients in an OBS suite. That said, I recommend starting with easier cases.

SAFETY AND OUTCOMES

Multiple studies have shown OBS to be as safe as, if not safer than, surgery in an ASC, with equal or lower rates of endophthalmitis, toxic anterior segment syndrome, vitreous loss, and other complications.¹ Additionally, some studies have suggested that unwanted patient movements are less frequent with oral versus IV sedation, which enhances safety.²⁻⁵

Emergencies are handled the same way in an OBS suite as in ASCs, with the same protocols and instruments. I have found that management is often easier in an OBS suite because I work with my dedicated scrub technician, who knows my protocols thoroughly, rather than an unfamiliar floating technician at an ASC.

My techniques for managing surgical complications (eg, with anterior vitrectomy, iris/capsular hooks, and capsular tension rings) are the same in an OBS suite and ASC. Cardiac events are handled as they would be in a clinic or waiting room: We use a crash cart with an automated external defibrillator and call 911 for patient transfer to the nearest hospital. Even at many ASCs where nurse anesthetists have replaced anesthesiologists, the emergency protocol is essentially the same as in an OBS suite. We have never experienced a medical emergency in our OBS suite. Theoretically, moreover, the risk of induced cardiovascular events should be lower with oral sedation in OBS than with IV sedation at an ASC.

We administer oral sedation (eg, oral midazolam) for patients 60 years of age or older and one MKO Melt for patients younger than 60 years of age. For patients 75 years of age or older or who are frail, I often forgo sedation and administer topical and verbal anesthesia. I rarely use peribulbar anesthesia for more complex cases that may take longer.

I have never been unable to complete an OBS case due to patient anxiety. I have found that the OBS environment—with familiar staff and no needles—naturally reduces patients' baseline anxiety. One of my patients is a case in point. She deferred cataract surgery for more than 5 years due to a fear of hospitals and needles. She then sought out my practice because we offer OBS. She did well with oral sedation; she exhibited minimal anxiety and left a glowing review. Multiple studies have shown equivalent safety between IV and oral sedation, with less unwanted movement and higher patient satisfaction using oral regimens.²⁻⁵

FINANCIAL CONSIDERATIONS

The financial argument for OBS is compelling. It costs far less to build an OBS suite than an ASC, with monthly overhead also reduced because no anesthesiologist is required. Although ASC facility fees pay better than OBS facility fees, this primarily benefits surgeons who are ASC owners—and opportunities to own ASCs are increasingly limited.

For the growing number of surgeons without ASC ownership opportunities, OBS offers an excellent alternative for maintaining control over surgical scheduling and equipment while keeping costs manageable.

STAFF TRAINING

Training and certification for OBS and an ASC are similar. My OBS team is extremely conscientious about sterility and safety because we frequently perform immediately sequential bilateral cataract surgery (ISBCS), with different instrument trays and different production lots of antibiotic used for each eye. No anesthesia provider or registered nurse is required in OBS.

A major advantage of OBS is that it leverages the existing clinical team. My laser staff (LASIK/PRK) runs laser cataract procedures, helps circulate in the OR, and assists with pre- and postoperative tasks. My clinic technicians also serve as circulators and help with pre- and postoperative care when clinic volume is light. My scrub technician orders supplies and medications for both the OBS suite and the clinic.

When I am performing ISBCS, the consultation, workup, and surgery are completed within 3 to 4 hours.

OPERATIONAL SETUP

The longest phase is the buildout and certification of the OBS suite, which typically takes 3 to 12 months. The most disruptive step is adopting oral sedation; one way to ease the transition is to begin administering oral sedation for routine ASC cases.

OBS saves me time—no need to wait for an open OR slot at an ASC. With

OBS, I can operate every day, including Saturdays—my busiest OR days—and book patients sooner. ISBCS also shortens OR turnover time. For surgeons without an opportunity to own an ASC, I believe the investment in OBS is worthwhile.

COMPETITIVE POSITIONING

The competitive advantages of OBS have been substantial for my practice. We are able to offer more competitive pricing for refractive lens exchange and phakic IOLs without the burden of ASC fees, which has led to higher patient satisfaction scores. Furthermore, the flexibility to schedule procedures faster—including ISBCS—has reduced our backlog. Perhaps most importantly, OBS has become integral to our practice's identity and reputation in the community. Patients actively seek us out

for the convenience and personalized experience we provide.

FUTURE VIABILITY

I expect OBS to become more desirable as ASC expenses rise, anesthesia costs and shortages grow, and opportunities for the next generation of surgeons to own ASCs decrease. Some cases are better handled in an ASC or hospital setting. The principal challenge in OBS is reimbursement; to date, there is no recognized OBS facility fee (only an increased surgeon's fee). CMS approval of OBS reimbursement for cataract surgery would address this obstacle. ■

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EXPANDING OFFICE-BASED PROCEDURAL OPTIONS

Beyond cataract surgery, several innovations have expanded options for office-based procedures, streamlining patient care and reducing barriers to treatment. Recent episodes of *Ophthalmology Off the Grid* explore some of these developments.



DSLT FOR GLAUCOMA MANAGEMENT

J. Morgan Micheletti, MD, shares his experience as an early adopter of direct selective laser trabeculoplasty (DSLT; Voyager, Alcon) with hosts **Blake Williamson, MD, MPH**, and **Gary Wörtz, MD**. The panel examines whether DSLT could help address the underserved population of glaucoma patients who could benefit from laser therapy.

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STREAMLINED FLOATER REMOVAL IN THE OFFICE

Inder Paul Singh, MD, joins hosts **Blake Williamson, MD, MPH**, and **Gary Wörtz, MD**, to discuss innovations in laser floater removal. Dr. Singh reviews his experience with 1-Step vitreous removal technology (Vista Ophthalmics) using a 27-gauge nontrocar system that enables office-based core vitrectomy for symptomatic floaters, particularly in pseudophakic patients experiencing quality of vision issues.

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