Advances in technology have led to shorter patient stays, improved outcomes, and the feasibility of performing more procedures on an outpatient basis. That means ambulatory surgery centers (ASCs) need to continually reevaluate their procedure mix to be sure they are not missing out on potential business.

Though taking on new specialties may be lucrative, there are pitfalls. Not every ASC, and not every patient, will benefit from performing a given procedure on an outpatient basis.

Among new procedures ASCs have been adding in the past few years: total hip and total knee replacement; spinal surgery, including lumbar procedures and cervical fusion; and thyroidectomy.

John Dooley, MD, an anesthesiologist and administrator at Mississippi Valley Surgery Center in Davenport, Iowa, which has been doing these 4 procedures since 2007, cautioned that their adoption requires research and preparation to make them both safe and profitable for ASCs.

“It’s key that your surgeons are on board with that,” he says of the commitment to additional training, work hours, and capital investment.

He spoke at the Ambulatory Surgery Center Association conference in 2010.

Over and out

As director of surgical services, Nancy Jipp, ARNP, CASC, is responsible for ensuring that specific criteria are met for implementing the new procedures. That meant first defining “overnight stay.” Iowa does not require ASCs to be licensed and has no regulations defining the term “overnight.”

Following a review, according to Jipp, the state verified Mississippi Valley’s compliance with Medicare, which limits patient stays in certified ASCs to less than 24 hours.

To stay under that limit, the ASC sets up a timetable when patients are admitted for overnight surgery. “We make sure when patients are admitted, that we write on their charts the time of expected discharge, 22 hours later,” Jipp says. “That gives the nurse a heads up.”

The early deadline provides flexibility to ensure discharge within the 24-hour limit.

In the 3 years the ASC has been performing the new procedures, no patient has needed to exceed that length of stay, Jipp says—at least not for medical reasons.

“Some don’t seem to have the motivation to leave,” she notes. When patients are a little too comfortable in the recovery room, she says, the nurse spells out their options: either be transferred to a hospital as an inpatient, an event their insurance may not cover, or go home.
Overnight staffing

Following the surgery, every orthopedic patient receives a visit from a physical therapist for evaluation, training, and information. The ASC has expanded the recovery areas to accommodate walkers and to provide space for initial physical therapy.

For the overnight stay, the ASC must be adequately staffed, and Mississippi Valley has hired an RN dedicated to working the night shift on the 3 days a week these procedures are scheduled. Other staff members rotate night duty to provide a second RN. With capacity for up to 6 overnight patients, that provides a minimum 3:1 patient-nurse ratio, Jipp notes.

Overnight staff must be able to move patients, who are often large, as Dr. Dooley notes. He found an innovative response to that challenge: hiring local high school students to stay with patients overnight.

“They are big ones, football players,” he says. Several are considering medical careers, so they welcome the experience.

The students assist in helping patients walk, staying behind them for security; they also perform orderly-type tasks.

“The patients have commented that they feel more secure having the guys present,” Jipp says. Her son, before entering college, was one of the helpers, she adds, and found the experience rewarding: “I think that was a good exposure for him, to see the human side of surgery.”

Select patients carefully

“These are big cases,” Dr Dooley notes. Patients are at risk for serious complications, and careful risk assessment is critical in every case. The ideal patient for a new outpatient procedure, he says, will have the following characteristics:

• be medically stable
• be receptive to anesthesia recommendations
• be agreeable to an overnight stay followed by home recovery
• have family support during recovery
• be capable of planning and following instructions.

There are other considerations as well. For example, Medicare does not reimburse ASCs for total hip or knee replacements. In the case of partial knee replacements, Medicare pays only $6,000, which Dr Dooley says covers only the actual cost of the implant, so Mississippi Valley does not perform them for Medicare patients.

Another way in which patients should be screened, according to Dr. Dooley, is financially. The insurance company may demand a review for medical necessity. The patient may not be able to provide the co-payment.

“You don’t want to go through these cases and then not be paid,” he cautions.

Jipp and her staff have developed detailed questions and processes to establish the eligibility of prospective patients.

“They must be clinically able to have surgery and stay overnight,” she explains. The primary care physician, who is aware of their health history, must evaluate them as candidates for surgery. Persons with active infection are ineligible. Those with cardiac conditions must receive clearance from a cardiologist.

In addition, prospects are questioned closely about their health and life styles, including their home layout and the availability of postoperative care. “We make the assumption that patients are going to be honest with us,” Jipp says.
After discharge

Caregiving does not stop when the patient leaves. Discharge planning is essential, and the patient must be able to take responsibility for following home care instructions and recognizing complications. That is why patient selection is critical, Dr. Dooley says.

In the case of a total knee replacement, the following postoperative criteria apply:

- The family (or someone else) must be able to provide home care for the first 24 hours following discharge.
- The home must be cleared of obstacles.
- The home’s layout must be amenable to a patient with limited mobility.
- The patient must be able to follow directions.
- Any other illnesses must be under control.
- The patient must be able to tolerate regional anesthesia.

After discharge

During the preoperative evaluation, patients are asked about their home conditions.

“We discuss how many steps they have,” Jipp notes, although “they should be able to go up and down some stairs when they leave, following physical therapy.”

For the first 48 hours after discharge, a caregiver must stay with the patient. Someone must drive them home and help them into the house.

“It’s not that different from what happens when you are discharged from the hospital,” Jipp says.

Before leaving the ASC, the patient receives contact telephone numbers in case of complications.

Pain management has been less of a problem than expected. For these procedures, Mississippi Valley administers spinal anesthesia. Before and after surgery, patients receive oral medication as well. “We get ahead of the game,” Jipp says, referring to the importance of managing pain preemptively. Patients having total joint implants have already suffered pain for a long time, she adds, and some report actually sleeping better after the surgery.

“We have not had many complaints of postoperative pain,” she says.

Get everyone on board

Vendor representatives, Dr. Dooley says, can be helpful in making the adjustment to outpatient status for complex procedures, but first they must be convinced the change will work.

“Reps are used to these procedures being done in the hospital,” he notes.

The reps can help with OR staff training, such as showing them how to set up instrument trays for the new procedures. Some new procedures require the purchase of new equipment or reconfiguration of operating and recovery rooms.

Administrative staff needs to address scheduling implications and new billing and insurance requirements.

Equally important, Dr. Dooley says, is the commitment of anesthesiologists to any new procedure. They, too, need training and availability after hours. They should agree on the type of anesthesia to be administered to ensure consistency of treatment.
“If you don’t have that,” Dr Dooley says, “you can’t study the effects of changes.”

Though Mississippi Valley uses spinal anesthesia for all total joint cases, other facilities might make different choices.

As with any outpatient surgery, in case of complications, it is important to have a transport agreement with a nearby hospital. Mississippi Valley has added other precautions so the staff will be ready to recognize and react to any warning signs. All nurses who work nights are certified in advanced cardiopulmonary resuscitation (ACLS).

With total joint replacements, male patients often have urinary retention, especially when the prostate is enlarged, and spinal anesthetic is used. The best practice, Jipp says, is to insert a Foley catheter before the procedure.

For neck procedures, potential complications include hematoma, which can obstruct the airway, a critical situation. As a precaution, for each neck procedure, the instruments are set up and supplies assembled in advance. In case of hematoma, the surgeon can begin operating immediately on arrival.

With thyroidectomy, hypocalcemia is a potential complication.

Before such a procedure, over-night nurses review symptoms that could be ominous.

“Most catastrophic events have warning signs,” Jipp notes. “If you pay attention to the signs, you avoid the catastrophe.”

The after-hours protocol requires that Dr Dooley be contacted in case of any question about a patient’s condition.

### Equipment and supplies

To offer more complex procedures, ASCs need to make initial investments. For total knees and hips, large power tools are necessary; Mississippi Valley paid $200,000 for 6 sets. A knee support device, also required, costs approximately $6,000, he recalls, and the air-conditioned “space suits” worn by OR staff for orthopedic procedures cost $1,500 each.

For spinal surgery, equipment includes a microscope, positioning frames, high-speed power drills, and C-arm fluoroscopes. For thyroidectomy, the anesthesiologist needs special equipment to manage a potentially compromised airway postoperatively.

The OR itself often must be modified to accommodate the additional equipment. In addition, the ASC must buy or rent an adjustable hospital bed for overnight stays.

Other costs include overnight staffing and additional training for these staff.

Whether the results will be worth the effort will depend on the ASC’s specific circumstances. Mississippi Valley is able to charge less than the local hospital for the outpatient versions of the new procedures, except for total hips and cervical fusion.

“So we stress better outcomes,” Dr Dooley says. ✺

—Paula DeJohn
Recovering from an outpatient total hip

After some persuasion, Tom Wells became one of Mississippi Valley Surgery Center’s first patients to have an outpatient total hip replacement. Based on a recommendation from his primary care physician, Wells, now 53, had the surgery in December 2007.

“At first it was a little intimidating to get booted out in 24 hours,” he recalls, “but it was made clear that they would not make me leave before I was ready.”

Having had a previous hip implant as an inpatient, Wells adds, “Not being in a major hospital was appealing in itself. The experience was much more personal.”

Wells is a manager at Brown Traffic Products in Davenport, Iowa, a manufacturer of traffic control equipment and networks. He also is a youth soccer coach. Reduced mobility from hip joint pain led him to seek the implant procedure, and his relative youth and health made him a good candidate for the ambulatory surgery center (ASC) setting.

John Hoffman, MD, the surgeon, used a minimally invasive technique, where the incision was 4 inches long rather than the traditional 8 to 12 inches.

“We are employing surgical techniques that are sparing patients’ muscle tissue,” Hoffman says. “We have also fine-tuned regional anesthetic and pain management protocols. All of these factors come together allowing most patients to be walking within a day of their procedure.”

Wells says his treatment at the ASC was more personal than it had been at the hospital, starting with more detailed preoperative questions. With the spinal block and oral pain medication, he has no recollection of the surgery.

Physical therapy was painful. “But you need to get moving right away,” he says. “Physical therapy worked with me every couple of hours until I was ready to be released. There was a fair amount of pain, but I didn’t want to take more drugs than I needed.”

Rather than maintaining a strict medication schedule as in a hospital, Wells says, the ASC staff worked with him to manage the pain. “I think I was being assessed a little more often,” he recalls. “They were extremely responsive.”

Wells says his overall impression is that “They made me feel more like a customer than just a patient.” After his wife took him home, he says, recovery was rapid. His house is on one level, and his wife was able to provide care and transport him to physical therapy.

“By the third day, she was pretty much going to work,” he recalls. Besides investing in home care equipment such as bathtub railing and a raised toilet seat, his self-care at home included getting up and walking at 1- or 2-hour intervals—even if no one was watching.