California neurosurgeon has set up an advanced spine center other surgeons might envy. Robert S. Bray, Jr, MD, spent $12 million to renovate an empty office building in Marina del Rey, California, and stocked it with state-of-the-art technology, opening the DISC (Diagnostic and Interventional Spine Care) integrated surgical center in 2006.

More than 20 health care professionals staff the 55,000 sq ft facility, which is set up for a full spectrum of spinal surgery and to keep patients for 23 hours. All 3 ORs have microscopes, C-arms capable of 3-D intraoperative scanning, and advanced microsurgical instrumentation. The ORs are 560 sq ft and are equipped with HEPA filtration.

In addition to microdiscectomies and decompressions, the center performs stenosis procedures, cervical spine procedures, spinal fusions, and pedicle screw stabilization. Knee, hip, and shoulder procedures are also performed.

The center, which has performed 400 surgeries and pain management procedures in the past 6 months, became cash-flow positive in January 2007, ahead of schedule.

Dr Bray serves a select clientele, who either pay cash or use out-of-network insurance benefits, meaning they pay higher deductibles, copayments, and excess charges. Accepting only cash-paying or out-of-network patients means a lower volume of cases but higher revenue per case because a greater share of the charge is collected. “Realistically, I can’t do cases that pay $2,000 or $3,000 because that is below cost,” Dr Bray says. “I provide a level of care that’s much more expensive than in most centers. I’ve chosen to function in an area of Los Angeles where there is a relatively high volume of cash-paying and out-of-network-available patients.”

Right surgeons, nurses, patients

“To accomplish the complicated level of the procedures we do within a 23-hour stay, you have to select the right surgeons, the right patients, and the right nurses,” says Dr Bray. Patients must be healthy medically and psychologically, and the surgeon must be highly skilled and experienced in minimally invasive surgery. Medically complicated patients with diabetes and hypertension or patients with chronic pain who have been taking a great deal of pain medications are not appropriate candidates.

Dr Bray chose 6 spine surgeons trained in minimally invasive surgery to work at the center. All of the nurses have experience in spine and orthopedics as well as 10 to 15 years of experience in outpatient surgery and microsurgery.

The nurses also are skilled in management of outpatients, which includes getting them out of bed soon after surgery, getting them to void quickly, and getting their pain under control.

Patients meet with a nurse educator preoperatively who reviews what they can expect and how to care for themselves preoperatively and postoperatively.

Pain management is an essential part of outpatient spine surgery. All of the center’s anesthesiologists are board certified in anesthesia and pain management. They manage the patients’ pain throughout the perioperative experience—assessing them preoperatively, on the day of surgery, in recovery, and before they are discharged. They also do postoperative blocks so patients can mobilize quickly.

“Because of the blocks, the patients’ pain is under control from the minute they wake up,” says Dr Bray.
Close follow-up

“You have to have a close follow-up on spine patients in this setting, and you have to build in a whole infrastructure for postop care,” says Dr Bray.

Before they can be discharged, patients must be ambulatory, empty their bladders adequately, be able to tolerate eating, and be able to take oral pain medication.

Patients are discharged at one of 3 levels:

- **Level 1.** Patients go home on the day of surgery, and a nurse at the center calls that day as well as the next morning. Before the patient leaves, nurses review postop instructions on how to change the dressing, get the patient out of bed and walk, and do leg and deep-breathing exercises. If at the next morning follow-up call, a patient tells the nurse he or she is lying in bed and afraid, a nurse goes to the patient’s home.

- **Level 2.** Patients go home the day of surgery with all of the same postop instructions as Level 1 patients, plus have the help of a home health nurse.

- **Level 3.** After 23 hours, higher-acuity patients can be admitted to one of several private hotel-like aftercare facilities that DISC has relationships with. Insurance does not always cover this, so the center covers the cost if needed.

The center has 6 recovery beds and 2 private rooms for postoperative care. Typically, no more than 2 patients at a time are kept overnight. Almost 80% of patients go home the same day. Patients start physical therapy from 3 to 6 weeks after surgery.

Of the 200 patients Dr Bray has operated on in his center in the past 6 months, he says there have been no complications, no hospital admissions, and no blood needed.

Dr Bray has also established partnerships with 2 neighboring hospitals to refer patients who need more intensive care, and he serves as medical director of the Spine Institute at Saint John’s Health Center, Santa Monica, California.

—Judith M. Mathias, RN, MA