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M.D. NEWS

A BUSINESS AND LIFESTYLE MAGAZINE FOR PHYSICIANS

A photograph of three surgeons in a sterile operating room. They are wearing blue scrubs, masks, and hairnets. One surgeon is using a power drill on a patient's knee. The room is brightly lit with overhead surgical lamps. In the background, there are medical monitors and IV stands with bags.

Minnesota Valley Surgery Center

Practicing Total-Joint Replacements

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By Marian Deegan

Glass doors open quietly into a high-ceilinged lobby filled with art and light. The atmosphere is friendly, efficient and relaxed. Welcome to a visionary outpatient approach to orthopaedic care practiced by few centers in the nation.

Minnesota Valley Surgery Center (MVSC) is a multispecialty ambulatory surgical center designed to offer all-inclusive outpatient care for muscular skeletal problems. Here, patients can be evaluated,

undergo MRI scan or X-ray evaluation as necessary and/or receive therapeutic or surgical treatment under one roof. Comprehensive site services include physical therapy, occupational therapy, fitting for braces and orthotics, limited prescription fulfillment and a range of surgeries encompassing shoulder replacements, reverse shoulder replacements, knee and partial-knee replacements, resurfacing, total elbows, hip resurfacing and hip replacement. Center specialists

practice in total-joint replacement, sports medicine, hand surgery, foot surgery, ophthalmology and pain treatment.

“We’ve had a presence in the Burnsville area for a long time,” explains Robert B. Hartman, M.D., a founding partner and orthopaedic surgeon at MVSC. “Our present location is familiar to our patients. We are imbedded in the community, yet we are close to the hospital. If there was ever an event that required an immediate transfer, we’d easily be able to transfer someone from our surgical center to the hospital.”

MVSC specialties include orthopaedics, ophthalmology, plastic surgery, pain management, podiatry and general surgery. MVSC introduced total-joint replacement surgery services in response to patient demand. Their inclusive care model enables them to control implant costs, supply costs, operating room time and other overhead items. This translates into lower costs to insurance carriers and fewer out-of-pocket costs. Offering outpatient surgery was also a response to the apprehension patients expressed about going to a hospital, and the desire of many to get back to work more quickly. Many patients expressed a strong preference to recover in their home environment. They wanted their family and their pets around them.

“We are able to achieve some economies that a hospital can’t,” notes Dr. Hartman. “We evaluated and standardized our protocols, our implants and our instruments.

Robert B. Hartman, M.D., specializing in hip, knee and shoulder replacement, minimally invasive surgery and computer-assisted surgery





PHOTO BY DAVID GINSBERG

The left leg is prepped and cleansed prior to draping. The navigation setup and total-joint instruments are in the background.

We don't have all kinds of vendors bringing in all kinds of products. We also minimize patient travel and waiting time for evaluation, diagnosis and surgery. Patients can get prescriptions filled right here. This minimizes errors and confusion in the operating room and minimizes confusion with patient care. We can control costs efficiently. This benefits insurance carriers and is advantageous to patients. I think that is what has made us successful."

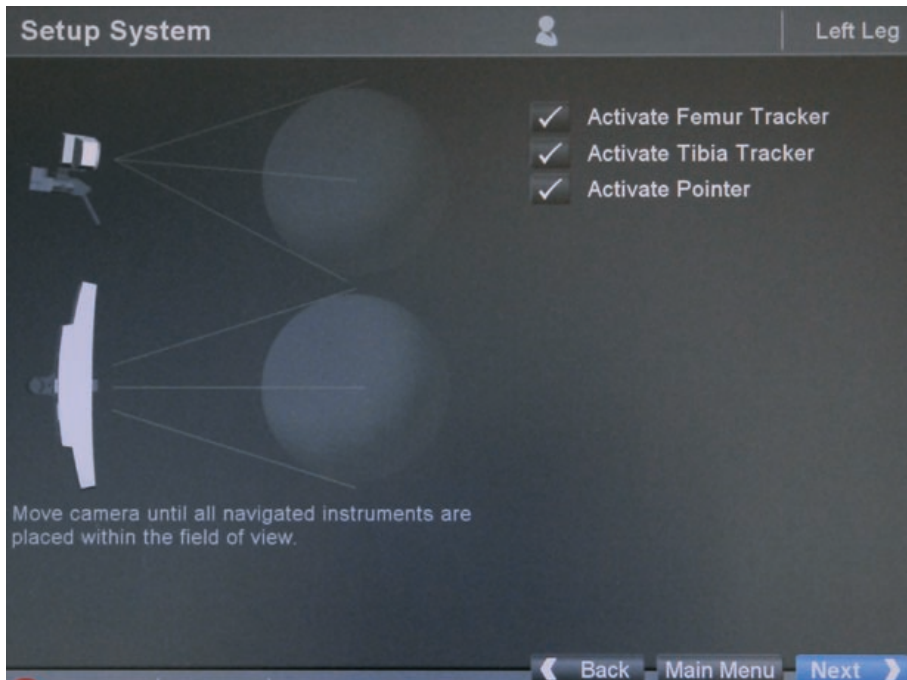
Outpatient joint replacement surgery isn't for everyone, but an evolution in patient demographics indicates that the number of candidates appropriate for outpatient options is on the rise.

"When we started in practice," explains Dr. Hartman, "the average age of a patient having an arthroplasty or joint replacement was late 60s through the 70s. We continue to treat older patients, but we are also seeing joint replacement patients in their late 40s and 50s. These younger patients are ideal candidates because they typically don't have health issues that would crop up after surgery. Our patients tend to be informed, willing individuals

who have done their research and are committed to the outpatient surgery process."

Good candidates for outpatient surgery are active, in relatively good health, have a family support system, an appropriate BMI and no major infections, diseases, pacemakers or health complications. Patients who are not appropriate candidates include those with any cardiac risk, a pacemaker or a lung problem that may require a respiratory therapist or a cardiologist.

With progressive outpatient treatments comes careful evaluation to accept only appropriate patients. "Just because you have a hammer doesn't mean that everything is a nail," says Dr. Hartman. "We don't push the envelope, even in today's medical climate, where patients are more demanding. In years gone by, patients had to be 65 years old, and they had to jump through certain qualifying hoops in order to have a knee replacement. Today, people are younger, more active and less tolerant of disability. They have access to the Internet. They know what technology is out there, and they can pressure surgeons



Initial computer screen generated by the navigation system, indicating the sending units and trackers have been activated

to push the envelope. But like anything else, you have to understand the limitations. Outpatient surgery is not for everyone.”

MVSC’s practice is based on standardized techniques using cutting-edge technology. “Many of the high-demand components we use are designed for younger, more aggressive patients,” explains

Completed total-knee replacement



Dr. Hartman. “Today, we can actually resurface the hip ball and the socket instead of replacing the hip. Resurfacing technology has been used in Europe for years; now it’s available in the United States. It is a solution that works well for younger patients who still want to run and jump and participate in athletics. Our techniques spare bone, minimize trauma to joints and mobilize patients faster. We use muscle-sparing surgical techniques that allow patients to stand and walk on the day of their operation, or start bending their knees on the same day as their surgery. These techniques also leave more bone in the event that future surgery is necessary.”

MVSC is one of the only local practices to use computer navigation to guide the positioning of components. This provides better alignment of the joint and better wear characteristics over time.

Computer navigation enables surgeons to map out the center of the hip or knee using devices that send impulses to a GPS satellite in the operating room. That data is transferred to a laptop computer, and visually shows the joint surface and center of the joint, allowing surgeons to manipulate the cutting blocks used for hip



PHOTO BY DAVID GINSBERG

Dr. Hartman is using the computer to check femoral rotational alignment.

and knee replacement to within plus or minus half a degree. In hip replacements, surgeons can adjust leg lengths to within a millimeter. Without this technology, judging leg length is considered one of the most difficult parts of doing a hip replacement.

MVSC also utilizes advancements in knee replacement techniques. “The knee has three compartments,” explains Dr. James M. Schaffhausen, orthopaedic surgeon and sports medicine specialist. “Today, instead of replacing the entire knee, we can selectively replace only the diseased compartment. This is particularly significant for younger patients who are going to outlive their components. Selective replacement uses less bone. In the future, when they need further replacement, more surgery will be a viable option. Also, recovery is much faster and function is greatly improved.”

MVSC augments patient recovery with a hand-selected home health and nursing service. “This service delivers the same care a patient would get in the hospital, but it is delivered in the patient’s

home,” explains Dr. Hartman. “Home care handles intravenous fluids, antibiotics, catheter care and initial physical therapy. Generally, prior to surgery, we arrange to have all patient medications filled and teach patients to use a walker or crutches. Sometimes, patients meet their nurses here in advance of surgery. In other instances, the home health service does an in-home preoperative assessment to assess patient needs for devices like raised toilet seats, handles and grippers. This makes for a smoother transition from the surgery center to home. Our home care service literally meets the patient at their home after surgery. There’s no gap between the time the patient leaves our center and the time they begin their nursing care.

“Patient care is something we foster,” continues Dr. Hartman. “Our personalities are reflected in our environment and in the personnel that work here. We’ve deliberately hand selected personable individuals who have a direct interest in seeing patients do well. They are all focused on orthopaedic care. They know the patients. They know the procedures. They know the post-op care. In a hospital, you can’t control personnel the same way. Here, we’ve fostered an environment that is delightful for our patients.”

“We run on time or ahead of time,” adds Dr. Schaffhausen. “Surgeons come out to talk to the family right after surgery. Because we do so much surgery under very light general or under a block, families are usually able to see their loved ones within 15 to 30 minutes of surgery.”

For MVSC surgeons, commitment to patient care means a willingness to work continually to improve the patient experience. “Nothing is set in stone,” says Dr. Schaffhausen. “Through all areas of care giving, if something isn’t working right or needs improvement, we make the change. We are always reassessing and re-evaluating. We personally read every patient satisfaction survey and we take them very seriously.”

Dr. Hartman offers a small example of survey-prompted change. “When we first opened,” he says, “we had coffee and tea in our lobby. Isn’t it natural to think that everybody likes coffee or tea? Then we started seeing survey comments from patients who wished we would offer a pop machine or water. So, we put in a pop machine. The complaint went away.”

Other feedback has been more complicated to address. The



PHOTO BY DAVID GINSBERG

The computer tracking units are in position to check alignment and stabilization of the knee using the computer prior to cementing the final components.

nursing staff constantly assesses patient flow to best protect patient privacy while facilitating optimal function. The traffic pattern for patients coming to and from the recovery area is always under scrutiny, and adjustments are a work in progress.

Also, when MVSC opened, many procedures were done under a very light general anesthetic. It was safe and convenient for surgeons, but patients and families weren't as happy with the approach. They complained of nausea and fuzziness, and surgeons quickly recognized that patients and their families wanted as little general anesthetic as possible. MVSC responded. Today, surgical procedures are done almost exclusively under blocks. MVSC's hand surgeon also uses preoperative sedation before patients are injected with Novocain, to make the Novocain injection less painful.

"Some metro physicians may be under the impression that the treatments we render here can only be found at the university or in Rochester," notes Dr. Hartman. "That's not the case. We are a very progressive, well-educated and well-trained group of orthopaedic surgeons. We are constantly abreast of new technology. Our

nursing care, CRNAs and anesthesiologists are absolutely state of the art. We routinely use block techniques that are done by few centers in the country, and that are virtually unknown in many of our local hospitals.

"Our anesthesiologist staff is premier," Dr. Hartman continues. "We are doing sophisticated Novocain blocks for hip and knee surgery. These blocks are certainly not done in many Minnesota hospitals. One of our anesthesiologists, Dr. Hestness, traveled to Indianapolis to learn a specific block we wanted for our total-knee patients. Without the team of anesthesiologists that we have, I don't know that you could do major outpatient procedures like knees and hips. Our team does such a phenomenal job with the blocks that patients go home basically pain-free."

"Our block procedures are very progressive," agrees Dr. Schaffhausen. "We strive to be on the forefront of administering care in our field.

"We looked at several different outpatient models throughout the country when we were designing our center," Dr. Schaffhausen explains. "You can learn as much from failures as you can from successes. We used a firm that was skilled at building and managing the kind of center we envisioned. Today, I received a call from a physician in Nebraska

who heard about our surgery center. He wants to know how our model works. That's the way it should be. We learned from other models, and now physicians are learning from our model. There should be camaraderie instead of competition. We are all dedicated to improving the future of medical care."

"My greatest pleasure," says Dr. Hartman, "is coming here to work and being in a happy environment. Without happy patients, we don't have a business. If I had to sum up our surgery center in one word, that word would be compassion." ■

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