

MICHIANA

M E D I C A L U P D A T E

FROM THE PHYSICIANS OF SAINT JOSEPH REGIONAL MEDICAL CENTER

TXA Improves Joint Replacement Outcomes

SJRMCM introduces a novel use of a well-known generic medication to minimize bleeding and lower transfusion rates.



Stephen F. Mitros, MD
Mitros Orthopaedics
On staff at SJRMCM

EACH YEAR, SAINT JOSEPH REGIONAL Medical Center (SJRMCM) performs hundreds of knee and hip replacement procedures. But our physicians are constantly looking for ways to improve.

A few years ago, orthopedic surgeon Stephen Mitros, MD, attended the American Association of Hip and Knee Surgeons' annual conference. His attention was captured by a well-known generic medication, tranexamic acid (TXA), that was being put to a new use.

Exploring the Role of TXA

TXA stops excessive blood loss by preventing the body from breaking down blood clots. It has been available for more than 40 years and has multiple uses, including managing bleeding during dental surgery and treating heavy menstrual periods.

Dr. Mitros learned that nationally renowned institutions such as the Mayo Clinic had started to use TXA to control bleeding during hip and knee replacements. "Patients frequently lose a lot of blood during these procedures, and anywhere from 5 to 20 percent require blood transfusions," he says. "Patients also may experience post-operative anemia, which can cause fatigue and make it more difficult to start therapy."

Dr. Mitros suspected TXA could make a big difference in his own patients. To find out, he worked with Jason Jablonski, administrative director for clinical services at SJRMCM.

SJRMCM is part of Catholic Health East/Trinity Health (CHE-TH), one of the nation's largest Catholic

health systems. Based upon the interest expressed by Dr. Mitros, Jablonski collected data from CHE-TH's other hospitals around the country to see what the national trend looked like. Jablonski saw that nearly 75 orthopedic surgeons at other CHE-TH facilities were using TXA, with stellar results.

Redefining the Standard

At SJRMCM, Jablonski and Dr. Mitros worked together to incorporate a protocol for using TXA, which involves administering it in the operating room either intravenously or by simply pouring it into the surgical site. They quickly saw a significant impact. "From July 2012 to

June 2013, transfusion rates dropped from 13 percent to 3 percent in the patients who received TXA," says Jablonski. "Patients who received TXA also reduced their hospital stays by nearly a half day, and the cost of their surgeries was about \$200 less than patients who did not receive it."

"Dr. Mitros was the first orthopedic surgeon in our region to start using TXA, and it's now becoming the standard of care," Jablonski adds.

In most cases, the most "exciting" advancements in orthopedics, such as new implants or cutting-edge equipment,

take center stage, Dr. Mitros notes. "But here's a case where finding a new use for a tried-and-true medication has reduced patients' risk, improved recovery and cut costs," he says. "That's the definition of value in healthcare."

The TXA Difference

The first time Richard Chlebek, 76, consulted Dr. Mitros about his knee pain, he learned that he was a candidate for knee replacement. Nevertheless, he hesitated, "I thought I could tough it out," he says.

Then one day, Chlebek, who lives on a lake in Edwardsburg, found himself having trouble stepping off the pier into his fishing boat. "That was the final straw," he recalls. "I didn't want to give up that part of my lifestyle."

Chlebek had his left knee replaced in January 2013, and his right in November 2013. Although both procedures went well, he noticed a significant difference in his recovery after the second procedure, in which Dr. Mitros used TXA to minimize blood loss. "I had less pain and more flexibility after my second procedure," he says.

Dr. Mitros explains, "Because there was less blood draining from around the surgical incision, we were able to use less bulky drains and a more comfortable dressing, which probably made a difference."

TXA also may have prevented blood from pooling in the knee, which can cause discomfort.

Today, Chlebek is living exactly the life he wishes. "I'm back to doing everything I used to do—I even went ice fishing," he says. "I wish I'd had the surgery done 10 years earlier."

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—Stephen Mitros, MD, orthopedic surgeon