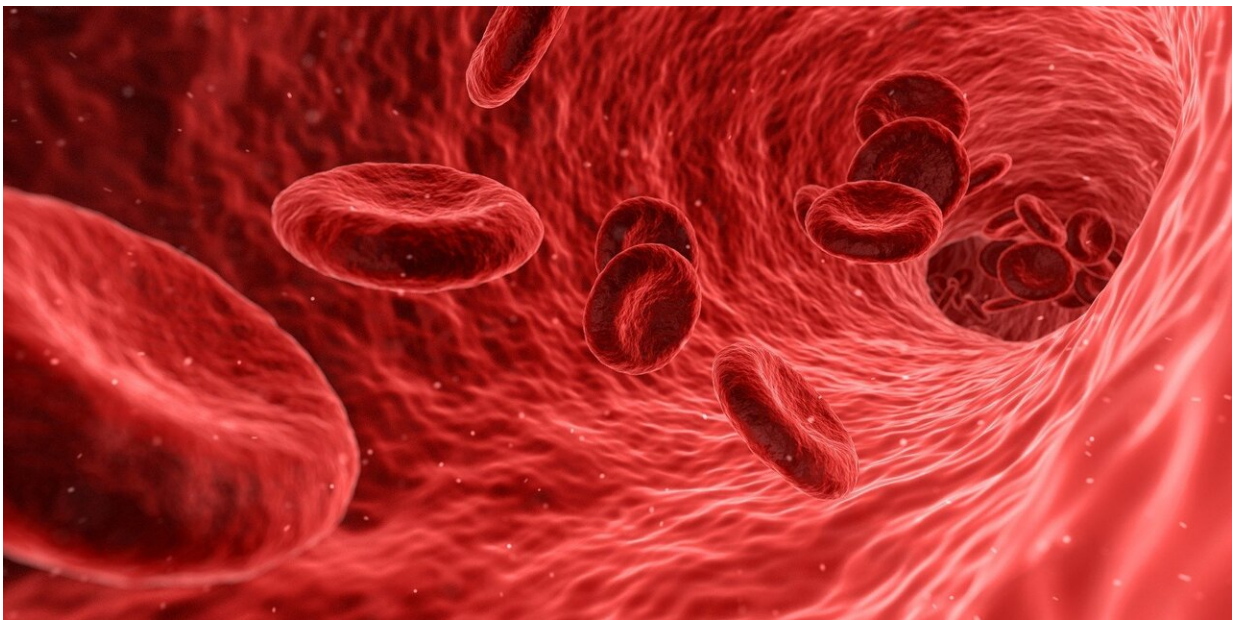


Interim study suggests oral TXA is equally effective in preventing blood loss in joint replacement

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Interim results of a study conducted by researchers at Hospital for Special Surgery (HSS) suggest that oral tranexamic acid (TXA) is non-inferior to intravenous (IV) TXA in preventing blood loss in total knee and total hip replacement surgery. These findings were presented at the 2021 Spring American Society of Regional Anesthesia and Pain Medicine (ASRA) Annual Meeting.¹

Previously available information suggests that oral, IV and topical TXA are all effective at reducing [blood loss](#) and drastically reducing [blood](#) transfusion rates during and after [surgery](#), but research with direct comparisons for each method is limited.

"TXA in orthopedic surgery has become the standard of care. However, the most efficient, efficacious and cost effective method of administration remains unknown," said principal investigator Stavros Memtsoudis, MD, Ph.D., MBA, an anesthesiologist at HSS. "The oral administration of TXA is logistically easier, thus reducing the risk of drug errors in the OR. It is also less costly. We are performing this study to identify if oral TXA is also equally efficacious at preventing blood loss. If this is the case, oral administration of the drug preoperatively as a one-time dose could become the standard of care."

Dr. Memtsoudis and colleagues randomized 199 patients between ages 18 and 80 undergoing total hip or [total knee replacement](#) to receive either oral TXA (1950 mg) two hours before surgery or IV TXA (1 g) at the start of the procedure. The primary outcomes observed were blood loss and transfusion rates.

In patients who underwent total hip replacement, the estimated blood loss calculated in the post anesthesia care unit (PACU) for oral TXA was 534 ± 285 mL, versus 676 ± 550 for IV TXA. On postoperative day one, estimated blood loss was 769 ± 257 mL for oral TXA and 798 ± 302 ml for IV TXA.

In patients who underwent total knee replacement, estimated blood loss in the PACU was 289 ± 219 mL for oral TXA, and was 486 ± 670 mL for IV TXA. On postoperative day one, estimated blood loss was 716 ± 288 mL for oral TXA versus 846 ± 659 mL for IV TXA.

No patients received transfusions during surgery. One patient who

received IV TXA received a transfusion after surgery.

"Given our interim results, it seems that the oral version of TXA is equally as effective as intravenous administration. This translates to improvements in efficiency, cost and safety, all of which are important for patients, clinicians and [policy makers](#)," Dr. Memstoudis said. "The research seems rather clear at this point. However, a uniform translation into policy is what is needed, as there seems to be limited translation of best evidence into practice."

Complete results of this study will be analyzed later this year.

More information: epostersonline.com/ASRASPRING21/node/834

Provided by Hospital for Special Surgery

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