

Guidelines for Preventing Blood Clots in People With Cancer

CU Cancer Center member Saketh Guntupalli, MD, was asked to write an expert review for the British Medical Journal.

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Many of the side effects of cancer treatment are well-known, including nausea, fatigue, and weight loss.

One of the lesser-known effects of cancer treatment — though it's one of the most deadly — is blood clots, which can form in the leg, break off, and travel to the lungs, where they can affect breathing and in some cases cause death.

“Blood clots are very common in patients with cancer,” says [University of Colorado Cancer Center](#) member [Saketh Guntupalli](#), MD, a professor and director of gynecologic oncology in the [CU School of Medicine](#). “People are very immobile when they're getting treatment for cancer, having surgery, and getting chemo, plus some cancers put people at higher risk for blood clots. They're the second-leading cause of cancer-related deaths.”

Analyzing the data

Guntupalli, who in 2020 published the results of a [practice-changing study](#) that found the oral medication apixaban was as safe and less expensive than a subcutaneous medication for preventing blood clots after surgery for gynecologic cancer, was asked by the British Medical Journal (BMJ) to review the literature and write an article on the current best practices for preventing blood clots in people with cancer across the board.

[Published in June](#), the review details strategies to prevent blood clots in cancer patients receiving chemotherapy, receiving radiation therapy, and undergoing surgery. The paper shows that accurate assessment of risk, as well as diagnosis and treatment of blood clots, is paramount to preventing death in this high-risk population.

“The way we decide an intervention for preventing a blood clot is by looking at what the risk is to the patient,” Guntupalli says. “We know risks are different based on the type of cancer and the intervention. If you have a low-risk cancer, like uterine cancer, and you're having a low-risk

surgery, like a laparoscopic hysterectomy, then your intervention is not as aggressive, because your risk of developing a blood clot is not nearly as high.”

The paper details two different risk models, one for postoperative patients and one for patients receiving chemotherapy, that take into account factors such as age, body mass index, and cancer type.

“We know that some cancers are much more likely to cause blood clots,” Guntupalli says.

“[Ovarian cancer](#), [multiple myeloma](#), and stomach cancer are notorious for causing blood clots. Those patients will need interventions for sure.”

Range of recommendations

For patients in each category, Guntupalli and his team researched the current suggestions from a number of medical societies and made recommendations based on the interventions that achieved the best results. Depending on the patient’s risk factors and type of cancer, those range from no intervention at all to compression devices on the legs to an oral postoperative medication like apixaban.

“It’s painful to take a shot, it’s expensive to take a shot, and it can be inconvenient,” Guntupalli says. “If they take a pill, which is much easier to do than getting an injection, we can decrease the morbidity and mortality from blood clots.”

The recommendations also are important because they can help keep patients safe, he says.

“The big downside of these drugs is they can thin out your blood too much, and your blood won’t clot when you need it to clot,” Guntupalli says. “Cost is a big factor as well, because these drugs cost money. We don’t want to give patients medication for things that they don’t need.”

In-demand tool

The article has been downloaded more than 10,000 times since it was published, which demonstrates the demand for the latest information on blood clots and cancer, Guntupalli says.

“This is a nice tool for all of our physicians to use,” he says. “It’s not limited to just oncologists. It’s for our internal medicine colleagues as well, because they treat patients with cancer all the time. Using these guidelines will help prevent bad things from happening.”