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Researchers improve safety, decrease risks of new blood thinners

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Researchers at McMaster University and St. Joseph's Healthcare Hamilton have successfully tested an antidote that reverses the effects of two new blood thinners named apixaban and rivaroxaban. By reversing the effects of blood thinners within minutes, this new antidote may help to save the lives of patients taking blood thinners that experience major bleeding complications.

The study, published online today in the *New England Journal of Medicine*, is led by Dr. Deborah Siegal and Dr. Mark Crowther, both of McMaster University and St. Joseph's Healthcare Hamilton.

"Bleeding complications present the most common risk for patients taking blood thinners. Without an antidote, there is no way to quickly reverse the effects of a blood thinner in emergency situations," said Siegal. She is a hematologist at St. Joseph's Healthcare Hamilton and a clinical scholar at McMaster's Michael G. DeGroote School of Medicine. "The findings of this study are an advance towards resolving major bleeding complications effectively within minutes."

Blood thinners are used to prevent and treat blood clots in a number of conditions including atrial fibrillation - an irregular heart rhythm that increases the risk of stroke and affects an estimated 350,000 Canadians. As many as three to seven per cent of patients taking blood thinners will experience major bleeding complications in their lifetimes, some of which can be fatal.

"The availability of an antidote may reassure patients who need to take these blood thinners regularly that these drugs can be stopped safely in emergency situations," said Siegal.

The study was funded by Portola Pharmaceuticals.

Provided by McMaster University