Are many a-fib patients getting the wrong dose?

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(HealthDay)—Nearly one in six Americans who takes newer blood

thinners for the heart rhythm problem atrial fibrillation may not receive the proper dose, a new study suggests.

A-fib is a common condition, marked by an irregular and often rapid heart beat. It's associated with a fivefold increased risk of stroke, but blood thinners reduce that risk. Many a-fib patients also have kidney disease and need a lower medication dose than others, the study authors said.

"Dosing errors of these blood-thinning medications in patients with atrial fibrillation are common and have concerning adverse outcomes," said lead author Xiaoxi Yao, a researcher at the Mayo Clinic in Rochester, Minn.

Moreover, "the number of patients using these drugs has quickly increased since the introduction of this new class of drugs in 2010," Yao said in a Mayo news release.

The researchers looked at nearly 15,000 patients from October 2010 to September 2015 who took the blood thinners apixaban (Eliquis), dabigatran (Pradaxa) or rivaroxaban (Xarelto).

Overall, 16 percent of the patients received doses inconsistent with U.S. Food and Drug Administration labeling, the study found.

Among patients with severe kidney impairment, 43 percent took the standard a-fib dose, a potential overdose. This was associated with a higher risk of major bleeding but no significant difference in stroke prevention, the researchers said.

Among patients without severe kidney disease, 13 percent got a potential underdose. Among Eliquis users, this was associated with a higher risk of stroke but no difference for bleeding risks, the report authors said.

There was no significant relationship between underdosing and the risks of stroke or bleeding for Pradaxa or Xarelto users, according to the study.

Such medication mismatches present different challenges, the study's senior author said.

"Overdosing is a fairly straightforward problem and can be avoided by regularly monitoring kidney function," said cardiologist Dr. Peter Noseworthy.

"However, underdosing is more complex. These medications need to strike a balance between stroke reduction and risk of bleeding. I think physicians often choose to reduce the dose when they anticipate their patients are at a particularly high bleeding risk—independent of kidney function," he said.

Patients need to be sure their doctors have an updated medical history and a current list of medications, especially if they see multiple health care providers at different hospitals or clinics, the study authors advised.

"Physicians will also need to regularly follow up with patients on these medications to detect change in kidney function and adapt the dose accordingly," Yao said.

The results were published June 5 in the *Journal of the American College of Cardiology*.

More information: SOURCE: Mayo Clinic, news release, June 5, 2017

The U.S. Agency for Healthcare Research and Quality has more on blood thinners.