

# Alpha blockers more effective for large kidney stones

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Credit: University of Michigan Health System

Nearly one in 11 Americans will have a kidney stone in their lifetime, causing pain, sometimes missed work and, often, a lot of money.

And for the two-thirds of kidney stone [patients](#) who need more than just extra hydration to pass their stones, physicians are eager to find non-surgical ways to help.

Contemporary practice guidelines recommend off-label use of drugs

called alpha blockers to facilitate stone passage. These include drugs such as tamsulosin, known as Flomax. However, a recent multicenter study of 1,136 subjects in the U.K. questioned the effectiveness of alpha blockers for this purpose.

Now, a new review of the medical literature suggests alpha blockers may be useful in some cases. It's published online December 1 in *The BMJ*, formerly known as the *British Medical Journal*.

"If we can facilitate kidney stone passage without surgery, it allows our patients to avoid extra pain and risks that come with a surgical procedure," says first author John M. Hollingsworth, M.D., associate professor of urology at the University of Michigan Medical School. "When the 2015 study did not show a significant difference between alpha blockers and placebos, we wanted to explore the issue further."

## Pooling the research

Hollingsworth and his team put that 2015 study into the context of other kidney stone research, pooling a total of 55 randomized controlled trials comparing alpha blockers to placebo or control.

They then considered stone size and location in the 5,990 study subjects to see if either one was a factor in successfully passing the stone.

"We found alpha blockers were successful, but the benefit is primarily in patients with larger kidney stones," says co-author Benjamin K. Canales, M.D., associate professor of urology at the University of Florida College of Medicine.

Researchers report a 57 percent higher risk of stone passage for larger stones with an alpha blocker, but no benefit for smaller stones. Location did not make a difference, nor did type of alpha blocker used.

"It's important not to discount low-risk options for patients who may benefit from them," says senior author Philipp Dahm, M.D., professor of urology at the University of Minnesota Medical School. "Our findings suggest providers consider prescribing a course of an alpha blocker."

## Effect on clinical care

"This data helps me better identify the patients who are likely to benefit from alpha blockers," Hollingsworth says. "It's important to consider stone size when deciding whether to recommend alpha blockers to kidney stone patients."

Because so many providers see kidney stones, from urologists like Hollingsworth to emergency department physicians and primary care physicians, the treatment guidelines are especially important, he says.

"There had been a fair amount of ambiguity following the UK trial. However, our findings help solidify surrounding guideline recommendations on alpha blockers in patients with stones," Hollingsworth says.

**More information:** John M Hollingsworth et al, Alpha blockers for treatment of ureteric stones: systematic review and meta-analysis, *BMJ* (2016). [DOI: 10.1136/bmj.i6112](https://doi.org/10.1136/bmj.i6112)

Provided by University of Michigan Health System

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