Studies unclear on role of pre-surgery beta blockers

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In a commentary appearing in this week's *Journal of the American Medical Association,* heart specialists at the University of Michigan Health System make a plea for clarity on the best approach for prescribing beta blockers before surgery.

It's not unusual for patients to suffer a cardiac event during surgery, and in theory, beta blockers will reduce the risk by slowing the heartbeat, reducing blood vessel constriction, lowering demand of the heart muscle for oxygen, and generally relieving stress on the heart. However, a one-size-fits-all approach for prescribing beta blockers can harm patients at low-risk for having a heart attack.

Future clinical studies using clear models of dose, duration and implementation could provide answers for doctors about the role of pre-surgery beta blockers, according to the U-M commentary.

Because of important design, treatment and analytical variations, previous clinical trials are hard to interpret.

For instance, the 2001 DECREASE I study included high-risk patients with known coronary blockages who faced high risk surgery. Importantly, the beta blockers were given based on individual heart rate and blood pressure. In contrast, the recent 2008's POISE study included a mixed group of patients undergoing major non-cardiac surgery and took a long-acting drug.

Given these important differences, the studies have not offered clear answers about who should get beta blockers, what the starting dose should be and how doses should be adjusted for patients.

"The time has come for clarity across perioperative beta blocker studies," the U-M authors write.

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