

## Resuming blood pressure medicine promptly after surgery reduces risk of death

4 June 2015

It may be better for patients to resume taking their blood pressure medication sooner after surgery than previously thought. A new study published in the Online First edition of *Anesthesiology*, the official medical journal of the American Society of Anesthesiologists (ASA), found resuming angiotensin receptor blockers (ARBs), common medications used to treat high blood pressure, within two days after surgery decreased death rates in the first month following surgery.

"Sometimes doctors briefly stop ARB medications around the time of <u>surgery</u> because they are known to cause <u>low blood pressure</u> while under general anesthesia, which can be dangerous for the patient," said Susan Lee, M.D., lead author of the study and clinical instructor, department of anesthesia and perioperative care, University of California, San Francisco. "Our study highlights the importance of resuming medications that <u>patients</u> were previously taking at home as soon as it is feasible after surgery."

In the study, researchers examined more than 30,000 patients who were regularly taking ARB medication prior to surgery and were admitted to the Veterans Affairs Healthcare system for non-cardiac surgery between 1999 and 2011.

Nearly one third (10,205) of the patients studied did not have their usual ARB medication resumed within two days of their operation. The delay in restarting ARBs was associated with an increase in death rate within 30-days of surgery, when compared to those whose medication had been promptly resumed. The effect was greater in patients under 60 years old. Researchers also found reduced rates of infection, pneumonia, heart failure and kidney failure in patients whose ARB medications were resumed soon after surgery, suggesting that early resumption may also reduce complications after surgery.

Until now and despite their widespread use, there

has been little information to guide physicians in the optimal timing for restarting ARBs after surgery. Doctors may continue to withhold ARB medication after surgery because they are concerned the medication may cause dangerously low blood pressure or disrupt kidney function. However, even after accounting for these complications in the first two days after surgery, resuming ARB medication was associated with a 50 percent lower mortality rate in the first month after surgery.

Immediately following surgery, patients are often transferred to different units within the hospital. Previous research has found that some regularly prescribed medications may not get resumed during these "transitions of care." Last year, the ASA introduced the Perioperative Surgical Home (PSH), a physician-led, patient-centered, multidisciplinary team-based model of coordinated care. With physician anesthesiologists at the helm of the PSH model helping to ensure patient safety and quality of care throughout the entire surgical process - from admission to recovery and postdischarge - the PSH model stands to improve and standardize patient processes like "medication reconciliation," ensuring a patient's medications are resumed appropriately during the surgical process.

Provided by American Society of Anesthesiologists



APA citation: Resuming blood pressure medicine promptly after surgery reduces risk of death (2015, June 4) retrieved 29 May 2022 from <a href="https://medicalxpress.com/news/2015-06-resuming-blood-pressure-medicine-promptly.html">https://medicalxpress.com/news/2015-06-resuming-blood-pressure-medicine-promptly.html</a>

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