



PRESS RELEASE

Physicians at the University Hospital Bonn investigated the effect of preoperative midazolam in older patients for the first time in a large randomized study

Patient satisfaction and safety remain unchanged with lowdose oral administration

Bonn, December 20, 2023 - Prof. Mark Coburn and PD Dr. Ana Kowark from the Department of Anesthesiology and Operative Intensive Care Medicine at the University Hospital Bonn (UKB) have conducted the largest randomized study to date on the effect of preoperative, orally administered midazolam in older patients. Placebo-controlled, the physicians revealed that midazolam does not impair patient satisfaction and safety when used in low doses. The results were published today in the renowned journal JAMA Surgery.

Midazolam is a sedative from the benzodiazepine group. It is sometimes used in anesthesia to calm patients before an operation. "Despite its widespread use, the effect of oral administration of midazolam on patient satisfaction in older patients before an operation has not yet been conclusively clarified," says Prof. Mark Coburn, Director of the Department of Anesthesiology and Intensive Care Medicine at the UKB. For this reason, the largest randomized study with placebo control to date on this issue was conducted in nine German hospitals. The more than 600 study participants were between 65 and 80 years old and were about to undergo elective surgery with at least 30 minutes of general anesthesia and planned extubation.

About half of the study participants were given a single low oral dose of midazolam 3.75 mg, the other half received placebos. The evaluation included a questionnaire to be completed one day after the operation and the monitoring of vital signs, possible complications and cognitive recovery within one month of the operation. "We revealed that there was no difference in patient safety between the midazolam group and the placebo group - apart from a higher proportion of hypertensive patients in the placebo group. A single low-dose medication of midazolam in older patients before surgery or with anxiety does not change patient satisfaction or patient safety," says PD Dr. Ana Kowark, senior physician at the Department of Anesthesiology and Operative Intensive Care Medicine at the UKB and first author of the publication.

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About Bonn University Hospital: Around 500,000 patients are treated at the UKB every year, it employs around 9,000 staff and has a balance sheet total of 1.6 billion euros. In addition to over 3,300 medical and dental students, a further 585 people are trained in numerous healthcare professions each year. The UKB is ranked first among university hospitals in NRW in the science ranking and in the Focus clinic list and has the third highest case mix index (case severity) in Germany. In 2022 and 2023, the F.A.Z. Institute recognized the UKB as Germany's most desirable employer and training champion among public hospitals in Germany.