

# Tramadol associated with increased risk of hospitalization for hypoglycemia

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The opioid pain-reliever tramadol appears to be associated with an increased risk of hospitalization for hypoglycemia, a potentially fatal condition caused by low blood sugar, according to a report published online by *JAMA Internal Medicine*.

Tramadol hydrochloride is a weak opioid whose use has increased steadily worldwide. However, concerns have been raised about the drug and an increased risk for [hypoglycemia](#).

Because of increasing use of the pain-reliever by patients, Jean-Pascal Fournier, M.D., Ph.D., of the Jewish General Hospital, Montreal, Canada, and co-authors examined whether tramadol, compared with codeine, was associated with an increased risk of hypoglycemia severe enough to send patients to the hospital.

The authors analyzed a database of all patients newly treated with tramadol or codeine for noncancer pain between 1998 and 2012 using information from the United Kingdom. The study included 334,034 patients (28,100 new users of tramadol and 305,924 new users of codeine), of whom 1,105 were hospitalized for hypoglycemia during an average follow-up of five years (112 of the cases were fatal).

Study results indicate that compared with codeine, tramadol was associated with an increased risk of hospitalization for hypoglycemia, especially in the first 30 days the pain-reliever was used.

"Although rare, tramadol-induced hypoglycemia is a potentially fatal adverse event. The clinical significance of these novel findings requires additional investigation," the study concludes.

In a related commentary, Lewis S. Nelson, M.D., of New York University School of Medicine, New York, and David N. Juurlink, M.D., Ph.D., of Sunnybrook Health Sciences Centre, Toronto, Canada, write: "Although hypoglycemia was uncommon in the study of Fournier et al, the true rate is likely higher because hypoglycemia is common, may not be reported in diabetics and may not be recognized in patients without diabetes. In either case, most instances will not result in hospital admission."

"Because [hypoglycemia](#) can be life threatening, clinicians should remain vigilant for this potential complication of tramadol use, in patients taking the drug as directed, as well as those who abuse it. Whether tramadol therapy should be particularly avoided in patients receiving hypoglycemic drugs is unclear, but given the drug's limited benefit and unpredictable pharmacological properties, it should be handled at least as carefully in these [patients](#) as in others," they continue.

"If we replace conventional opioids with tramadol, as some guidelines have suggested, we may be left with more unintended consequences of the opioid epidemic to worry about," the authors conclude.

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