

Q & A About Methadone

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Q. What are methadone's benefits and potential dangers?

Research demonstrates that methadone can be effective in treating some forms of neuropathic pain but also requires specific knowledge to use safely. Several states have recorded increases in accidental overdose deaths, many of them involving methadone. More research is needed into the exact reasons for the deaths, but at least some contribution appears to be tied to methadone prescribed for pain. There is difficulty in analyzing methadone's distinct contribution because lethal blood levels may vary depending on the decedent's degree of opioid tolerance, the severity of chronic pain and the action of polydrug combinations. Levels of methadone typically reported as a cause of death may actually be therapeutic in some chronic pain patients on long-term methadone therapy. Regardless, methadone does present some unique pharmacologic properties that need to be understood to utilize it safely.

Q. What should a clinician know about methadone before prescribing it for pain?

Pain experts typically administer opioids in the belief that patients quickly develop near complete tolerance to respiratory depression. Research is beginning to indicate that clinicians may underestimate the risk of respiratory depression, particularly in the initial conversion to methadone. Methadone is eliminated from the body at a slower rate than many other opioids. Its long, variable half-life averages around 48 hours but can be up to 100 hours. Methadone's properties increase its potential for polydrug interactions. Also, if patients defy medical direction and escalate methadone doses in an attempt to control their pain, the results can be lethal.

Q. What is methadone's relationship to sleep?

Methadone-related deaths may be influenced by a patient's dosing schedule, including time of the last dose of the day in relation to the onset of sleep. In particular, the presence of sleep apnea appears to pose a risk: New research suggests a relationship between doses of methadone and increased incidence of sleep apnea, particularly in combination with benzodiazepines. If patients are at risk for sleep apnea, clinicians are advised to obtain a sleep study to determine whether patients require supplemental oxygen, continuous positive airway pressure (CPAP) or some other support to safely consume methadone for pain.

Q. What is the safe approach to an initial dose of methadone?

Clinicians are advised to start methadone therapy with a low dose and titrate slowly to an analgesic effect. Published conversion tables are inadequate in giving equianalgesic doses of methadone compared to other opioids. Cross tolerance from other opioids to methadone is incomplete, and the tables are designed for a single dose, not for chronic administration. The result may be a recommended starting dose that is too high.

For now, safe practice supports starting methadone with a ceiling dose of no more than 20 mg/day (10 mg/day for elderly or infirm patients). Dose changes should not occur more often than weekly to allow a steady state of methadone to develop and for the peak side effects to become clear. For patients who are being converted from another opioid to methadone, clinicians should slowly titrate downward the other

opioid as they slowly titrate methadone upward. This practice will minimize the risk of withdrawal and the risk of overdose involving either methadone or a combination of the two opioids.

These guidelines represent a more conservative recommendation than seen elsewhere. Certainly, some patients are able to tolerate a much more rapid conversion or titration. Nevertheless, given the reports of deaths associated with methadone, these starting guidelines should help clinicians ensure patient safety and give methadone pain therapy a greater chance of success.

Q. How should patients be counseled?

Patient counseling must include an emphasis on following all medical instructions to the letter: no escalation of doses and no mixing of methadone with other prescriptions, alcohol or illicit substances. Patients should be warned that any deviation in this regard can be dangerous, even fatal.

Patients should be apprised of the danger of taking anyone else's prescriptions and of the need to lock up all prescription opioids to prevent them being stolen or consumed by others.

References

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