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High-Dose Methadone Improves Treatment Outcomes

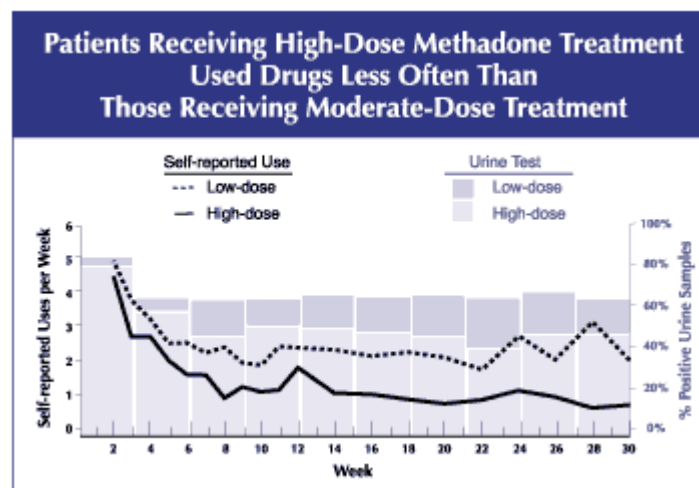
By Patrick Zickler, NIDA NOTES Staff Writer

Methadone has been used effectively for more than 30 years as a treatment for heroin addiction. The medication blocks heroin's narcotic effects without creating a drug "high," eliminates withdrawal symptoms, and relieves the craving associated with addiction. Methadone is administered orally in licensed clinics and its effects typically last 24 to 36 hours.

Although methadone has been used for decades, no clinical consensus has been reached about the most effective daily dose. Many clinics do not adjust dosages according to the needs of individual patients. Instead, they administer fixed doses. One clinic might use doses of 25 milligrams (mg) per day for all patients; others may administer daily doses of 60 mg. "Federal regulations require that a clinic receive a special exemption in order to provide patients with doses greater than 100 mg per day, but no contemporary studies have examined the effectiveness of daily doses greater than 80 mg," says Dr. Eric Strain, a NIDA-supported researcher at The Johns Hopkins University Medical Center in Baltimore.

Dr. Strain and his colleagues investigated the effectiveness of high-dose -80 to 100 mg per day-methadone treatment and found this dosage to be more effective in reducing heroin use than treatment with a moderate dose of 40 to 50 mg per day. The study involved 192 patients. Sixty-five percent of participants were male; pregnant women were excluded from the study group.

During the first week of treatment all patients received 30-mg daily methadone doses. Daily doses were increased until, by the 8th week, half the patients were receiving a moderate dose of 40 to 50 mg per day and the other half were receiving a high dose of 80-to-100



Following a 1-week orientation period, patients receiving high-dose (80-100 mg) methadone treatment had less self-reported heroin use and lower rates of drug-positive urine samples than patients on

mg per day. These doses were maintained through the study's 30th week. Dosages were then decreased by 10 percent each week during the final 10 weeks of the program. Patients were encouraged to enroll in long-term community-based treatment programs following completion of the 40-week study.

moderate-dose (40-50 mg) treatment. Urine results are shown as 3-week averages of twice-weekly samples.

Dr. Strain and his colleagues evaluated the effectiveness of treatment through analysis of twice-weekly observed urine testing, weekly patient reports of heroin use, and the length of time patients remained in treatment. "The high-dose group used opiates significantly less during treatment than did the moderate-dose group on average," Dr. Strain says. "Patients in the high-dose group reported using opiates no more than once a week. The moderate-dose group reported using drugs two to three times per week on average." Among patients who completed the 30-week active phase, 33 percent of high-dose patients remained in treatment throughout a 10-week methadone phase-out, compared with 20 percent of moderate-dose patients. There were no gender-related differences in outcome for high- or moderate-dose groups, and no difference was reported between the high- and moderate-dose patients for side effects such as grogginess or constipation.

In an earlier study, the researchers found that moderate-dose treatment of 50 mg per day was more effective than low-dose treatment of 20 mg per day. "The current study provides strong evidence that we can achieve much better outcomes at dose rates much higher than 50 mg per day," Dr. Strain says.

Dosages exceeding the currently regulated ceiling of 100 mg per day may provide the best result for some patients, Dr. Strain says, but he notes that clinical trials would be needed to support changing this regulation. "The most important aspect of our research from a therapeutic and public health perspective is that methadone treatment over a broad range of doses results in significant clinical improvement for opioid-addicted patients," he says.

Sources

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