Injectable diacetylmorphine is more effective than oral methadone in the treatment of chronic relapsing opioid dependence

**QUESTION**

**Question:** Is injectable diacetylmorphine more effective than oral methadone maintenance therapy in patients with opioid dependence that is refractory to treatment?

**Patients:** Users of injectable heroin for at least 5 years, aged 25 years or older who had not responded to at least two previous attempts at treatment for addiction (including at least one methadone treatment, undertaken at least 6 months prior to the study). Exclusions: medical or psychiatric conditions that are contraindications for diacetylmorphine (diamorphine), pregnancy, involvement with the criminal justice system which may have resulted in incarceration during the study period.

**Setting:** Montreal, Quebec and Vancouver, British Columbia, from March 2005 to July 2008.

**Intervention:** Oral methadone or injectable diacetylmorphine hydrochloride. Methadone was administered at a clinic or pharmacy on a daily basis; the dosage was based on best practices and current clinical practice guidelines. The diacetylmorphine (diamorphine) was self-administered under supervision in treatment clinics up to 3 times daily with a maximum daily dose of 1000 mg.

**Outcomes:** The primary outcomes were the rate of retention in treatment and the reduction in illicit drug use or other illegal activities at 3, 6, 9 and 12 months after baseline evaluation. Response at 12 months was defined as an improvement of at least 20% from the baseline score for illicit-drug use or legal status (or both).

**Patient follow up:** 41% methadone, 67% injectable diacetylmorphine (diamorphine). 100% included in the intention-to-treat analysis.

**METHODS**

**Design:** Randomised controlled trial

**Allocation:** Unclear.

**Blinding:** Not blind (open-label)

**Follow-up period:** 12 months

**MAIN RESULTS**

The rate of retention in treatment for addiction in the diacetylmorphine (diamorphine) group was 87.8%, compared to 54.1% in the methadone group (rate ratio, 1.62; 95% CI 1.35 to 1.95; p<0.001). A 67% reduction in illicit-drug use or other illegal activities was observed in the diacetylmorphine group, compared to the methadone group (rate ratio: 1.40, 95% CI 1.11 to 1.77; p=0.004). Another 20% of participants assigned to diacetylmorphine switched to methadone within the study period. Adverse effects: None of the serious adverse events in the methadone group was considered to be related to the treatment. Overdoses and seizures were the most frequent events related to diacetylmorphine.

**CONCLUSIONS**

Both diacetylmorphine (diamorphine) treatment and optimized methadone maintenance treatment led to high retention and response rates. Injectable diacetylmorphine was more effective than oral methadone, but because of risks of overdose and seizures, prompt medical intervention should be available in settings where it is available. Methadone should remain the treatment of choice for the majority of patients.

**ABSTRACTED FROM**


**Correspondence to:** Dr Martin Schechter, School of Population and Public Health, University of British Columbia, 5804 Fairview Avenue, Vancouver, BC V6T 1Z3, Canada; martin.schechter@ubc.ca

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**REFERENCES**


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