

ONGOING USE OF COCAINE IN A COHORT OF PATIENTS ON METHADONE MAINTENANCE THERAPY IN A COMMUNITY-BASED COMPREHENSIVE CARE CLINIC IN SAINT JOHN, NEW BRUNSWICK, CANADA

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BACKGROUND

- In patients initiating opiate agonist therapy (OAT), the prevalence of concurrent cocaine use is estimated to be 30-50%.^{1,3,4,5}
- No current pharmacological treatment exists to adequately address cocaine use disorder.^{6,7}
- Ongoing cocaine use among patients on OAT has been associated with poor treatment outcomes.¹
- Studies have shown that individuals initiated on OAT show reductions of 13-16% in concurrent cocaine use from baseline.²
- In this study, we aimed to evaluate whether cocaine use decreased following enrollment into a comprehensive care clinic providing OAT.

METHODS

- All patients prescribed methadone maintenance therapy (MMT) through a comprehensive care clinic in Saint John, New Brunswick between April 1, 2014 and September 30, 2016 were reviewed. Patients had to have a minimum of 3 months of methadone treatment and urine drug screen results available.
- Baseline cocaine use was captured from the initial urine drug screen at intake. Ongoing cocaine use was defined as ≥ 1 positive urine drug screen in the 3 months prior to September 30, 2016 or the date they left the clinic if inactive earlier.
- Characteristics at follow-up examined only those reporting baseline cocaine use.
- Differences in characteristics were compared using t-tests, chi-square tests, or Wilcoxon rank-sum tests as appropriate. Change in proportion with ongoing cocaine use was calculated using McNemar's Test.

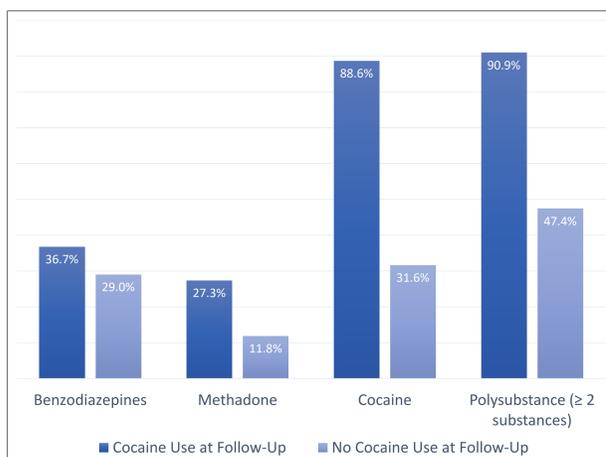


Figure 2: Baseline Illicit Substance Use by Cocaine Use Status at Follow-Up.

Baseline polysubstance use, lack of primary care and inadequate methadone dose play a role in ongoing cocaine use for individuals receiving methadone maintenance therapy.

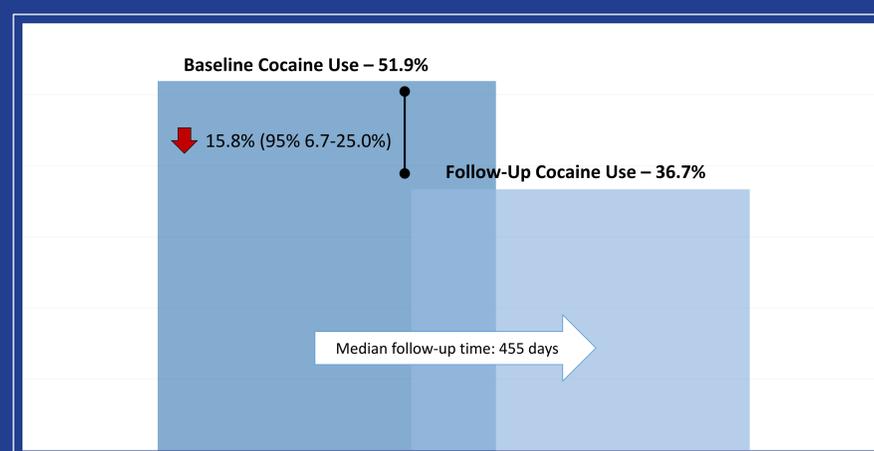


Figure 1: Change in cocaine use among MMT patients from baseline to follow-up.

Table 1: Baseline Characteristics by Cocaine Use Status

Characteristic	Ongoing cocaine use at follow-up?		p-value
	Yes (n=44)	No (n=76)	
Mean Age, years	32.5	32.4	0.944
% Female Sex	36.4%	40.8%	0.632
% with Primary Care Provider	44.2%	73.7%	0.001
% Hepatitis C Positive	65.7%	33.3%	0.002
% Already on MMT at baseline	36.4%	32.9%	0.699

Table 2: Follow Up Characteristics by Cocaine Use Status

Characteristic at Follow-Up	Ongoing cocaine use at follow-up?		p-value
	Yes (n=44)	No (n=76)	
Mean Methadone Dose, mg	61.4 mg	58.9 mg	0.634
% on Stable Methadone Dose	59.1%	82.7%	0.005
Days engaged in treatment	358 days	526.5 days	0.041
Retention in treatment to Sept. 30/16	63.3%	90.8%	<0.001

RESULTS

- A total of 120 patients had data available on baseline and follow-up cocaine use.
- At baseline, 61.9% of patients reported cocaine use versus 36.7% at a median follow-up time of 455 days under the clinic's care (Figure 1).
- Other baseline illicit substance use included 32.3% using benzodiazepines and 18.9% methadone. Amphetamine use was not prevalent in this region during the time of this study.
- Individuals who had cocaine use at follow up had significantly higher baseline urine drug screens positive for:
 - polysubstance use (90.9% vs. 47.4%, $p < 0.001$),
 - cocaine (88.6% vs. 31.6%, $p < 0.001$),
 - illicitly acquired methadone (27.3% vs. 11.8%, $p = 0.032$) (Figure 2).
- There was no significant difference in illicit benzodiazepine use (36.4% vs. 28.9%, $p = 0.400$) (Figure 2).
- Those with cocaine use at follow up did not differ significantly at baseline on the basis of age, sex or proportion already MMT at baseline (Table 1).
- As noted in Table 2, those free of cocaine use at follow-up had a longer duration in treatment at the clinic (526.5 days vs. 358 days, $p = 0.041$), had a higher proportion having reached a stable methadone dose (82.7% vs. 59.1%, $p = 0.005$) and higher retention in treatment (90.8% vs. 63.6%, $p < 0.001$).

DISCUSSION

- The prevalence of cocaine use and decrease in cocaine use observed was consistent with the literature.¹⁻⁵
- As shown in previous literature, lower retention was observed in those with cocaine use noted at follow-up.¹⁻⁵
- Perceived low methadone dose has been associated with regular cocaine use.² A significantly greater number of individuals without cocaine use had achieved a stable methadone dose in our study.
- Further research in this area and increased programming incorporated into OAT programs to address the high proportion of baseline stimulant and polysubstance use is needed. Only by comprehensively addressing the risk posed by all substance use can we truly reduce harms associated with substance use.
- Further prospective research with more extensive data on comorbid psychiatric conditions, frequency of use and other social variables should be considered.

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