

HIV infection in a Methadone Maintenance Treatment: Impact on retention

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Background

Opioid dependence is a chronic and relapsing disorder with high costs to individuals, families, and society. The inclusion of people who inject drugs (PWID) in opioid-assisted therapy (OAT) for opioid use disorder (OUD) has demonstrated a reduction in risk behaviors; also, it could increase the retention in treatment and the adherence to antiretroviral therapy (ART) (Low et al., 2016). Methadone maintenance treatment (MMT) is the most widely used treatment for heroin use disorder and a substantial body of research exists that supports its effectiveness in the treatment of OUD (Torrens et al., 2013).

Objective

We describe the prevalence of HIV infection in patients admitted to a MMT program with integrated Antiretroviral treatment (ART) and its impact in retention in the treatment.

Methods

Data on patients consecutively admitted in an out-patient community MMT program from January 2000 until December 2016 was collected. Demographics, clinical data, dual diagnosis, medical diagnosis (HIV, HBV and HCV infections), age of first heroin use, route of use, time until first OST and reasons for drop out (voluntary drop out, area/center change, other OAT/programs transfer, imprisonment, death) were assessed. Patients who voluntarily dropped from treatment, were analyzed considering the last contact with the center: ≤ 3 months (early drop out) and > 3 months (delayed drop out).

Results

In the period analyzed, a total of 585 patients have been admitted (or readmitted) to MMT (76% men, 38±9 years at admission). The main characteristics of patients are described in Table 1. After 16 years, 473 patients (80%) (77% men, 37±9 years at admission) were not longer in the program. Reasons for discharge were: 35% dropped out, 32% moved to other centers/areas, 13% were transferred to other OAT/programs (slow-release morphine or buprenorphine maintenance, drug free program, therapeutic community), 10% went to prison, 8% died, and 2% for other reasons.

The 30% of the sample presented an HIV infection (68% men, 40±8 years at admission). This group presented more prevalence of comorbid cocaine addiction (74% vs. 62%; $p=0.013$), required higher doses of methadone (79 mg/day vs. 57 mg/day) and presented less prevalence of drop-outs (19% vs. 34%; $p<0.001$). Table 2.

When analyzing survival curves, the main factor related with OST program retention was methadone dose ($p=0.0047$) (Figure 1). The presence of an HIV infection also was related with better retention in treatment ($p=0.0004$) (Figure 2). Finally, comorbidity with other psychiatric diagnosis (dual diagnosis) did not influence in the retention rate (Figure 3).

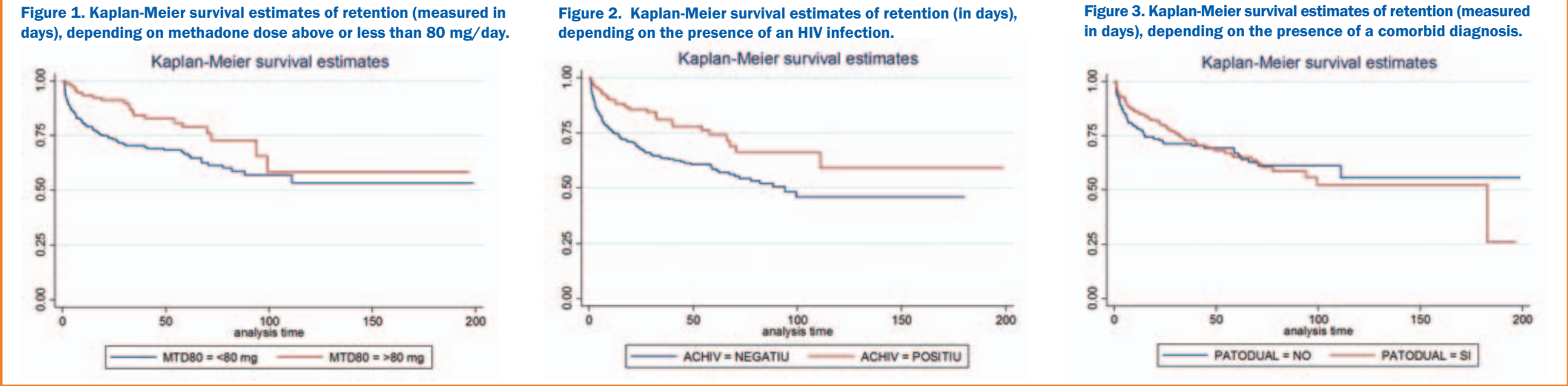
Table 2. Characteristics of patients regarding the HIV status at admission?

	HIV positive N (%)	HIV negative N (%)	p
	175 (30)	410 (70)	
Males	119 (68)	323 (79)	0.007
Age at admission (years, x + SD)	40 ± 8	37 ± 10	0.001
Age of 1st heroin use (years, x + SD)	19 ± 5	22 ± 7	<0.001
Intravenous heroin use	175 (100)	254 (62)	<0.001
Cocaine Addiction	129 (74)	254 (62)	0.013
Alcohol Addiction	47 (27)	114 (28)	0.475
HCV Ab positive	162 (93)	213 (52)	<0.001
Dual Diagnosis (Any other psychiatric disorder DSM-IV criteria)	101 (58)	196 (48)	0.027
Time to first MMT (years, x + SD)	12 ± 8	9 ± 7	0.015
Time in present OST (months, x + SD)	36 ± 38	31 ± 36	0.148
Methadone dose (mg/d)	79 ± 63	57 ± 37	<0.001
Voluntary/forced discharge	33 (19)	139 (34)	<0.001

Table 1. Main characteristics of 585 patients included in MMT, at admission, during analyzed period.

Variable	N	%
Sex (males)	447	76
Age at admission (years, x ± SD, range)	38 ± 9 (19-69)	
Age of 1st heroin use (years, x ± SD)	21 ± 7	
Route of use		
Snorted	63	11
Smoked	116	20
Intravenous	402	69
Other	4	0.8
Time to first OST (years, x ± SD)	9 ± 8	
Cocaine Use Disorder	380	65
Alcohol Use Disorder	164	28
Comorbidity		
HIV-Ab positive	175	30
HCV-Ab positive	356	62
HBV-S-Ag positive	64	11
Dual Diagnosis (Any other psychiatric disorder DSM-IV criteria)	310	53
Length of methadone treatment (months, x ± SD, range)	31 ± 37 (1-199)	
Methadone dose (mg, x ± SD) (range)	63 ± 47 (1-375)	
Outcome		
Still in treatment	113	20
Voluntary dropout	166	28
Transferred to other center	149	25
Program transfer	64	12
Imprisonment	49	8
Death	36	6
Forced discharge	8	1

SD: Standard Deviation



Conclusions

Methadone maintenance treatments that include HIV assessment and treatment are useful to maintain patients in treatment. The provision of integrated treatments could improve the general health and outcomes of PWIDs. The presence of a psychiatric comorbid diagnosis did not change the retention in the program, being methadone low doses the main risk for early dropouts.

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