

Purpose: Chemsex refers to the intentional use of recreational drugs to enhance sexual experience in gay bisexual and other men who have sex with men (gbMSM). Few data about this phenomenon in Barcelona have been reported; the aim of this study is to characterize a Chemsex users cohort from Barcelona city, by analysing socio-demographical and clinical characteristics, sexual behaviours, type of drugs and pattern of consumption and sexually transmitted diseases (STDs). (1-4)

Methods: Cross-sectional study of a series of gbMSM patients Chemsex users. Patients were recruited between March 2018 and May 2019, at the Hospital Clinic of Barcelona. Clinical and epidemiological characteristics were evaluated based on the information obtained from the clinical history and a questionnaire answered by the patient. Likewise, screening for HIV, HCV and STDs was carried out.

Results: 161 gbMSM patients were included. 48% were Latin-Americans. 94% were HIV positive and 36% of them were HCV positive (24% had detectable HCV-RNA). The median of sexual partners was 20 (IQR 10; 30) and the median of reachable sexual partners was 8 (IQR 3 ; 15) . 95% reported unprotected anal sex. 50% were poly drug users and 20% reported slamming. 13% of HIV patients had detectable viral load. 70% were concerned about drug use in this context and 60% would like help to address this issue.

Table 1: Baseline characteristics of patients (N=161)

Variable	N (%)	
Age		39 years
Birth place (N 159)	Spain	53 (33%)
	Europe (without Spain)	27 (17%)
	Latinoamerica	76 (48%)
	Australia	1 (1%)
	Asia	1 (1%)
	Africa	1 (1%)
Period of arrival to Spain (N 104)	<2010	50 (48%)
	2010-2014	15 (14%)
	≥2015	39 (38%)
Studies (N 144)	No studies	2 (1%)
	Primary education	5 (3%)
	Secondary education	75 (52%)
	Higher education	62 (43%)
HIV status (N 160)	Negative	10 (6%)
	Positive	150 (94%)
Hepatitis B surface antigen (N 149)	Negative	146 (98%)
	Positive	3 (2%)
Hepatitis B surface antibody (N 109)	Negative	36 (24%)
	Positive	113 (76%)
IgG hepatitis B core antibody (N 109)	Negative	109 (73%)
	Positive	40 (27%)
IgG hepatitis A virus (N 125)	Negative	19 (15%)
	Positive	106 (85%)
Venereal Disease Research Laboratory (VDRL) (N 149)	Negative	59 (40%)
	Positive	90 (60%)
IgG hepatitis C virus (N 149)	Negative	94 (63%)
	Positive	55 (37%)
RNA-HCV (N 55)	Negative	42 (76%)
	Positive	13 (24%)

Table 2: HIV data (N=150)

Variable	Summary statistics	
CD4 ¹		671 (522 ; 862) [149]
CD8 ¹		811 (627.5 ; 1005.5) [148]
CD4/CD8 ¹		0.8 (0.6 ; 1.1) [148]
Undetectable VL (<50) ²	Detectable	20 (13%)
	Undetectable	129 (87%)
	Total	149 (100%)
VL ¹		4950 (108.5 ; 40550) [20]

1: Median (IQR) [n] 2: n (Percentage)

Table 3: HIV data, Antiretroviral therapy at inclusion (N=150)

ART ¹	RAL/DTG	23 (15%)
	PI/rC y EVG/c	50 (33%)
	NNRTI	36 (24%)
	Others	39 (26%)
	Naive	2 (1%)
	Total	150 (100%)

1: n (Percentage)

Figure 1 and 2: The individual frequency of drug use and the most prevalent drug combinations are reported.

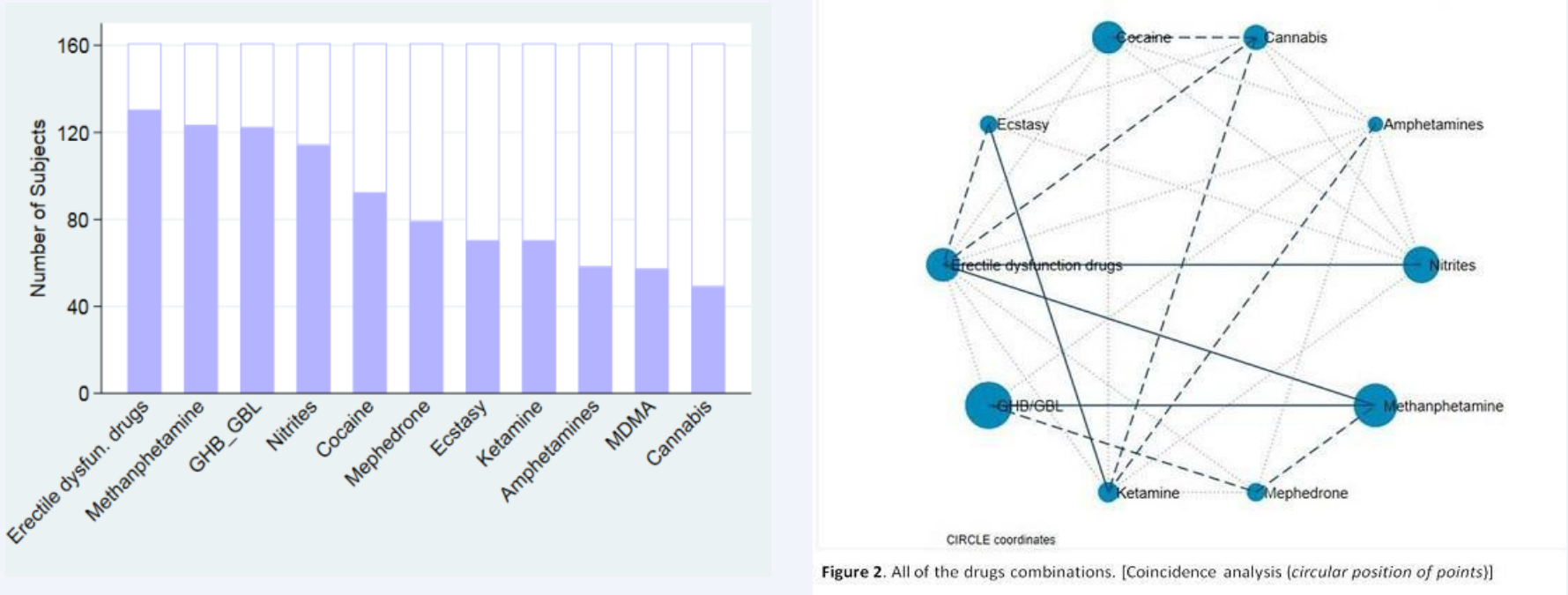


Figure 3: The screening of asymptomatic STDs reported 91 positive PCR for *Neisseria gonorrhoeae*, *Mycoplasma genitalium* or *Chlamydia trachomatis* (urine, rectal and pharyngeal samples). Some patients were coinfectd with different microorganisms.

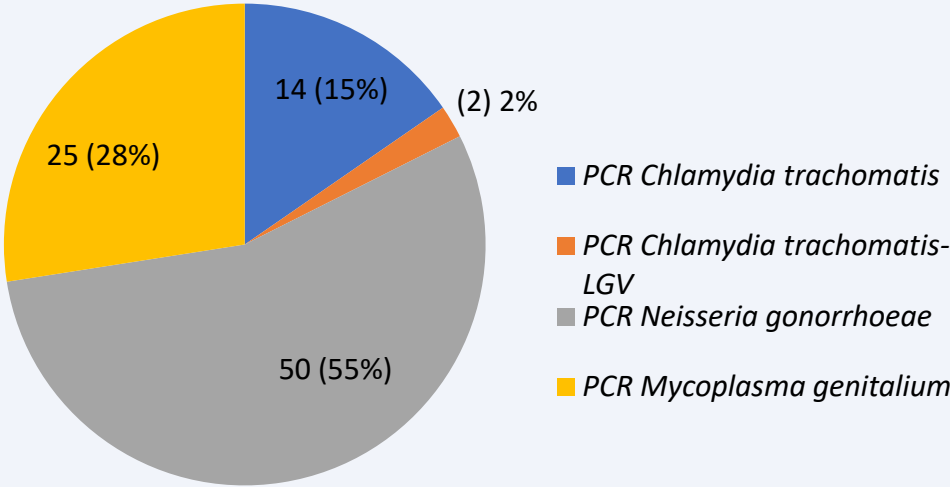


Table 4: Diagnosed asymptomatic STDs by patient (N=161)

STD	n (Percentage)
<i>Neisseria gonorrhoeae</i>	37 (23%)
<i>Chlamydia trachomatis</i>	16 (10%)
<i>Mycoplasma genitalium</i>	23 (14%)
Early and latent syphilis	33 (20%)

Conclusions: High prevalence of unprotected sexual risk practices, poly drug use and slamming are found in our MSM chemsex users cohort. The prevalence of HCV and other asymptomatic STDs is very common in this population. Specific risk reduction strategies are necessary in this population

References: 1. Bourne, et al. Sexually Transmitted Infections. 2015; 91(8), 564–568. 2. Maxwell S, et al. Int J Drug Policy. 2019; 63:74–89. 3 Daskalopoulou M, et al. Lancet HIV. 2019 1: e22±31. 4. Fernández-Dávila. Subdirección General de Drogodependencias, Agencia de Salud Pública Catalana, CEEIS, 2017.