Chemsex: Medical aspects

BREACH
Belgian Research Aids&HIV Consortium

BREACH Symposium
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La Géode Charleroi

P. Semaille

CHU Saint-Pierre
UMC Sint-Pieter

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Dienst voor Infectieziekten
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Département de Médecine Générale
DMG
Université Libre de Bruxelles

ULB Université Libre de Bruxelles

*CHEMSEX

is the contraction of the English words: *chemical* and *sex*

= the use of psychotropic substances or synthetic drugs during sexual intercourse (=“chemsdate”)

*SLAM

The "hard" version, where partners inject synthetic products intravenously

3 components: injection / Psycho-stimulating substances / sex group

Seems to be more (and more?) commom among MSM, with sexual practice such as fist-fucking and S.M.
(and could be « problematic » in some situations)

*Is chemsex/slam frequent?

EVOLUTION DE LA PREVALENCE DE LA PRATIQUE DU « SLAM » CHEZ LES HSH SEROPOSITIFS POUR LE VIH ENTRE 2013 ET 2016

T. L'Yavanc1, M. Hamidi1, R. Missonnier1, G. Pialoux1

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Congrès SFLS « Sexualités et addictions »
Montpellier 5 et 6 octobre 2016

- **INTRODUCTION :**
- Apparu dans les années 2000, le ≪ Slam ≫ désigne des pratiques d'injections de drogues chez les gays en contexte sexuel. L'objectif de cette étude est d'évaluer l'évolution de la prévalence de la pratique du Slam chez les séropositifs HSH et de décrire la population des ≪ slameurs ≫.
- **MATERIEL ET METHODE :** Depuis 2013, la question ≪ Avez-vous déjà pratiqué le Slam ? ≫ a été intégrée au logiciel de consultation. Elle apparait a chaque consultation, et ne réapparait qu'une fois par an si une réponse y a été apportée.

RESULTATS

- La prévalence de la pratique du Slam a été évaluée sur 3 périodes :

-**2013** (du 01/01 au 31/12/2013), **1348** patients**, 3,12 %** slameurs (n = 35)

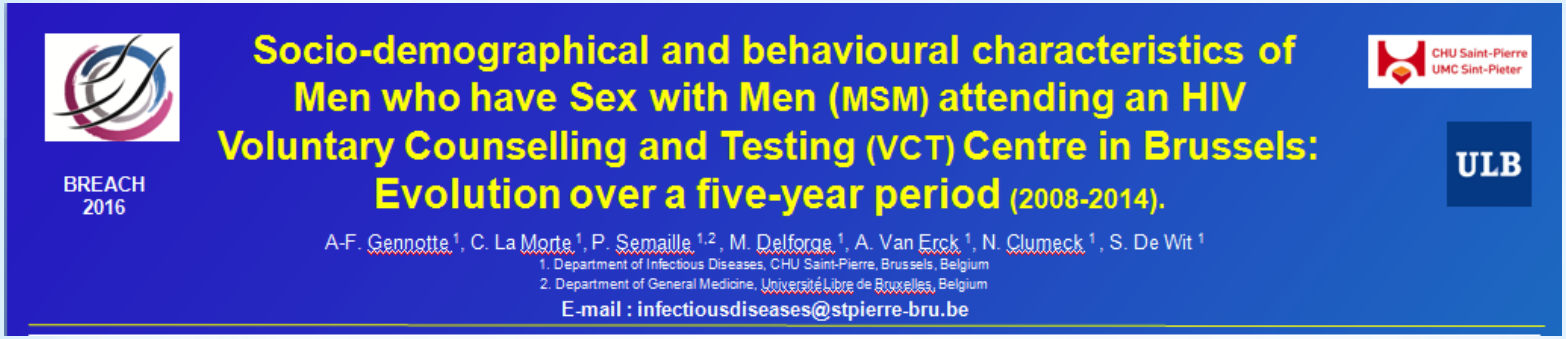
-**2014** (du 01/01 au 31/12/2014),**1417** patients , **4,11 %** slameurs (n = 44)

- **2015/2016** (du 01/10/2015 au 31/05/2016**). 1378** patients **5,14 % slameurs** (n = 55)

Sur l'ensemble de la période 2013-2015/16, 79 slameurs ont été identifies. Compares aux non slameurs (n = 1632) les slameurs étaient **plus jeunes** (43 *vs* 49 ans) et **séropositifs depuis moins longtemps** (13 *vs* 16 ans**), très majoritairement traites par ARV**, avec **des taux de CD4 élevés** (médiane 743/mm3) et une **CV VIH majoritairement indétectable**. Les **coinfections par le VHC ou la syphilis** étaient très fréquentes : 38,0 % des slameurs (n = 30) avaient une coinfection VHC (*vs* 5 % des non slameurs), et 45,6 % (n = 36) avaient un TPHA positif (*vs* 22,7 % des non slameurs).

CONCLUSION : Le **Slam** est une pratique qui s'installe dans la communauté HSH VIH+. **Un patient HSH VIH+ sur 20 de la consultation du SMIT Tenon** est ou a été concerné. L'impact en sante publique semble majeur, en particulier la diffusion communautaire des IST et du VHC. Il est urgent de proposer a cette communauté des outils de prévention, de réduction des risques, et des filières de soins spécifiques a cette pratique.

*Is the use of chems frequent?



From 2011 to 2014 :

we noted an increase in all reported daylife consumptions :

Alcohol from 68 to 84%

Cannabis from 22,5 to 38%

Cocaine from 12 to 19,5%

Ecstasy from 8% to 19,5%

MSM using more than 2 illegal drugs from 12% to 28%

*Drugs commonly associated with chemsex

cocaine, GHB/GBL, ketamine, amphetamines and amphetamine-type stimulants called also new psychoactive substances “NPS” (crystal-meth, ecstasy, mephedrone and it’s derivative cathinon)

Table 1 Drugs commonly associated with chemsex

Common name (street names)	Means of delivery	Typical effects	Typical duration
GHB/GBL (G, Gina, liquid ecstasy)	Swallowed in small liquid doses	Sedation and anaesthetisation: euphoria, disinhibition; drowsiness	Up to 7 h
Mephedrone (meow-meow, MCAT, plant food)	Snorted as a powder, injected or administered rectally	Stimulation: euphoria, alertness, affection, confidence; anxiety, paranoia	About 1 h
Crystal methamphetamine (Christine, Tina, T, crystal, ice, yaba)	Snorted as powder, smoked in glass pipe or injected	Stimulation: exhilaration, alertness, disinhibition; agitation, paranoia, confusion, aggression	4–12 h

Source: http://www.talktofrank.com
GBL, gamma-butyrolactone; GHB, gamma-hydroxybutyric acid.

Bourne. Sex Transm Infect. 2015 Jul 9

The main psychostimulants reported are synthetic cathinones (89.5%)
In nearly 62% of synthetic cathinone users take more substances

(G, K, MDMA, LSD)

A. Batisse et coll. Use of psychostimulants in a sexual context: Analysis of cases reported to the French network of Addictovigilance Centers. Therapie. 2016 Oct;71(5):447-455

+ alcoohol
+ THC-canabis
+sildenafil (Viagra/kama), cialis…

But before: why chems and sex?

All is a question of …pleasure

Euphoria and empathy,

Disinhibition and Increased self-confidence,

increased sensuality and sexual performance / endurance
("aphrodisiac" effects)

"Pain killers"

But with risks of:

Decreased self-control

Reduced vigilance -> unprotected and sometimes unwanted sex

* Focus on MSM

* MSM HIV+

The factors associated with decreased condom use are Caucasian origin, a high level of education and drug /alcohol use [1] .

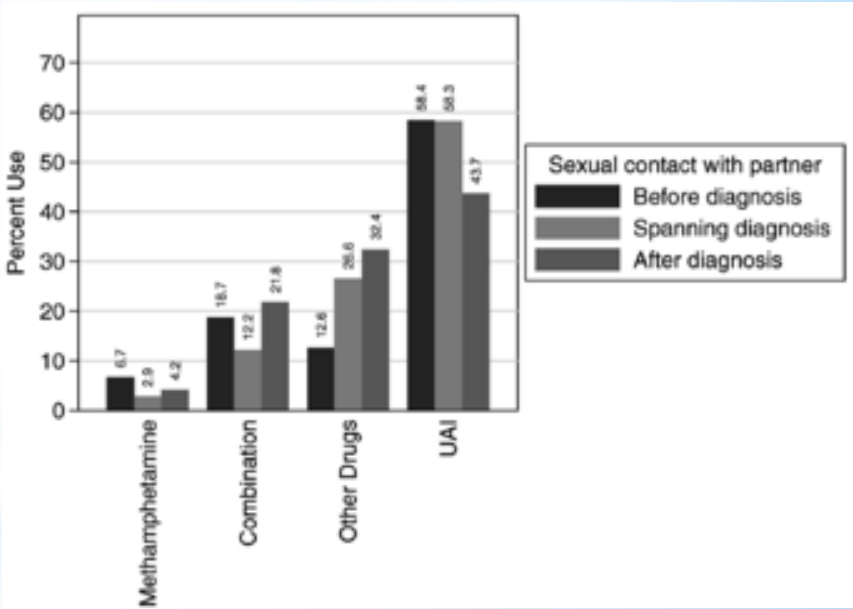
* Unprotected anal sex and drugs use among recently HIV-infected MSM [2]

. *prior to diagnosis*:

unprotected sex ratios are associated with methamphetamine alone or in combination.

. *after diagnosis*:

this association is found with **all substances**.



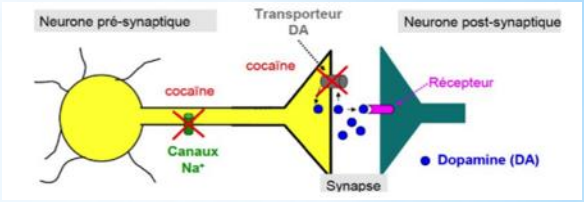
1. HIV treatment optimism and unsafe anal intercourse among HIV-positive men who have sex with men: findings from the positive connections study. AIDS Educ Prev. 2010 Apr;22(2):126-37.
2. Unprotected Anal Intercourse and Substance Use Before and After HIV Diagnosis Among Recently HIV-Infected Men Who Have Sex With Men. Sexually Transmitted Diseases, June 2007, Vol. 34, No. 6, p.401–407

*Drugs commonly associated with chemsex

Focus on cocaine and New Psychoactive Substances NPS

ULB UNIVERSITÉ LIBRE DE BRUXELLES

*COCAINE



Natural alkaloid extracted from coca bush

Type: Cocaine powder or hydrochloride: Hydrophilic, can be injected, inhaled (sniffed), ingested, not smoked

The Freebase : prepared from the powder, can be smoked

Crack: 75-90% pure cocaine, pebbles

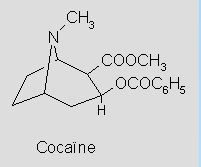
Eurotox: www.eurotox.org
DRUGS Early Warning

Street name: Coke, Coco, CC, C, neige, blanche, body packers, Charlie, parachute, Patante, Caro, Caroline, Beida,…

Physiological effects: sympathicomimetic stimulant ↗ blood pressure and heart beat, vasoconstriction,

Psychological effects: Euphoria (rush, high), feeling of power (intellectual and physical), indifference to pain & fatigue, then dysphoria (crash).

*COCAINE : toxicity



Cocaine

Hypertension and **tachycardia** almost universal

hyperthermia may occur

arterial vasoconstriction (coronary/bowel/CNS arteries)

CNS: **Agitation**; focal signs suggest cerebrovascular accident

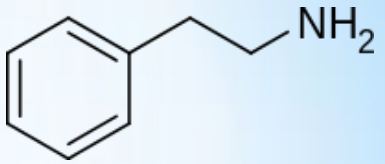
Pupilla: Mydriasis

Lungs: Decreased breath sounds after smoking crack suggest pneumothorax

Extremities: Decreased pulses suggest vascular accident, such as aortic dissection

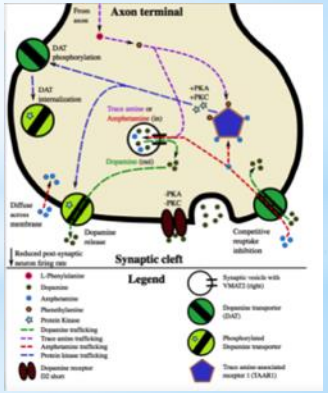
Psychiatric disorders: psychosis, hallucinations, mood instability, paranoid delirium, panic attack, violent behaviour

*New Psychoactive Substances "NPS"

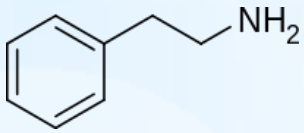


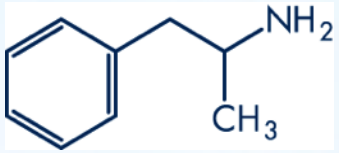
Derivate from phenethylamine **PEA** (ß-phenylethylamine (ß-PEA) and 2-phenylethan-1-amine), a mono-amine alkaloide neurotransmitter synthetised naturally from *phenylalanin* and metabolized by *mono-amine oxydase* B MAO-B in the small intestine.

PEA increases the release of norepinephrine & dopamine and may induce acetylcholine release via a glutamate-mediated mechanism.



*New Psychoactive Substances "NPS"

Synthetic derivates from PEA: 

Amphetamine (Alpha-Methyl-PHEneThylAMINE) 

stimulate liberation of dopamine, serotonine and noradrenaline and inhibate the recapture of dopamine

Metabolized by CYTP2D6

* New Psychoactive Substances "NPS"

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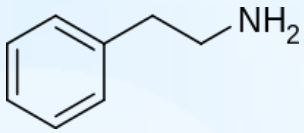

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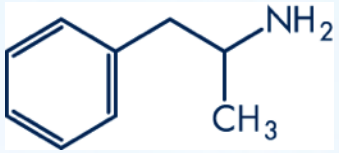
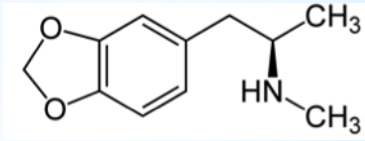


MDMA (3,4-MéthylèneDioxy-MéthAmphétamine)



Serotoninergic agonist (5HT)
(stimulate liberation of dopamine and noradrenaline)

Effects:
empathogen (feeling well with others)
entactogen (which facilitates contact)
psycho and physical stimulant

Ecstasy component **(XTC)**

Eurotox: www.eurotox.org
DRUGS Early Warning

* New Psychoactive Substances "NPS"

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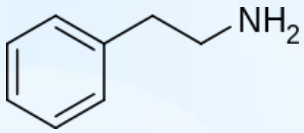

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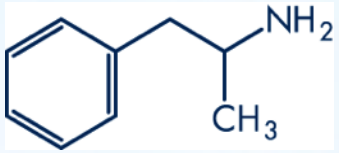
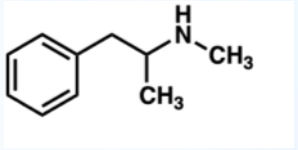


Metamphetamine (N-MethylAmphétamine)

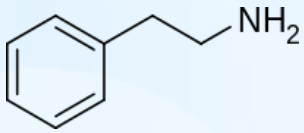


Well known as *Crystal-meth, ice, cristal, glass, Tina*
(shabu, halk, chicken feed, crank, glass, hawaiian salt, high speed, jib, Kool-Aid, kryptonite, peach, pinotte, rock candy, sketch, soiks, spooch, stove top, tweak, zip…)

Powerfully addictive and psychostimulant

*New Psychoactive Substances "NPS"

Synthetic derivates from PEA:



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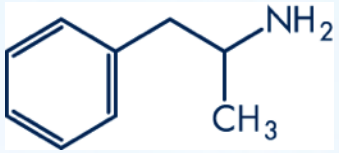
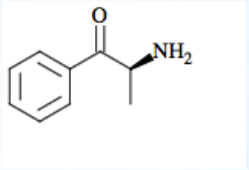


Cathinone (benzoylethanamine, or β-keto-amphetamine)



beta-ketone amphetamine analogs

Alcaloid of the Khat

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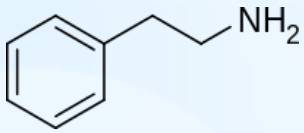
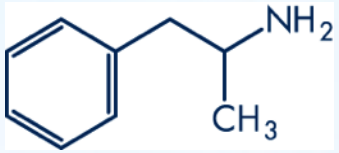
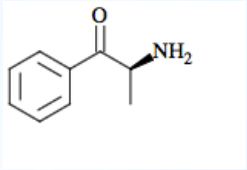
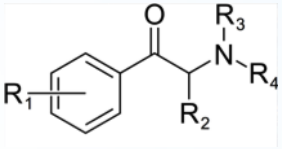
Synthetic derivates from PEA: 

Amphetamine (Alpha-Methyl-PHEneThylAMINE) 

Cathinone (benzoylethanamine, or β-keto-amphetamine) 

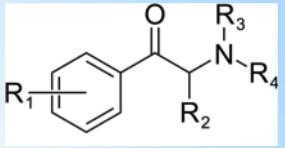
Synthetic cathinones 

They block the reuptake of dopamine, norepinephrine, and serotonin, as well as stimulate the release of dopamine

The **derivatives** may be produced by substitutions in four locations of the cathinone molecule:

R_1 = hydrogen, or any combination of one or more alkyl, alkoxy, alkylenedioxy, haloalkyl or halide substituents
R_2 = hydrogen or any alkyl group
R_3 = hydrogen, any alkyl group, or incorporation in a cyclic structure
R_4 = hydrogen, any alkyl group, or incorporation in a cyclic structure

*Synthetic cathinones



More than 50 synthetic derivates, and more and more…

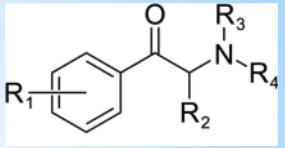
Compound	R_1	R_2	R_3	R_4
Cathinone	H	Me	H	H
Methcathinone	H	Me	H	Me
Bupropion (3-CBP)	3-Cl	Me	H	*t*-Bu
Mephedrone	4-Me	Me	H	Me
3-MMC	3-Me	Me	H	Me
4-EMC	4-Et	Me	H	Me
4-MC	4-Me	Me	H	H
4-MEC	4-Me	Me	H	Et
βk-MMDMA	3,4-methylenedioxy-5-MeO	Me	H	Me
α-PPP	H	Me	pyrrolidinyl	
MOPPP	4-MeO	Me	pyrrolidinyl	
MPBP	4-Me	Et	pyrrolidinyl	
MDPV	3,4-methylenedioxy	nPr	pyrrolidinyl	

Synthetic cathinones is probably the more used substance for slamming

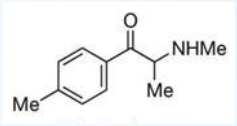
“This injection drug is prevalent in many studies on MSM samples. Cathinones would popularize the slam.”

Batisse, M. Grégoire , M. Marillier, M. Fortias, S. Djezzar. Cathinones use in Paris. L’encéphale 2016:42(4):354-360

*Synthetic cathinones



Mephedrone (4-methyl methcathinone (4-MMC) or 4-methylephedrone)



Street name: drone, M-CAT, White Magic, meow meow, miaou miaou, 4MCC, MPK,…

form of tablets or a powder, which users can swallow, snort or inject (intra-veinous or intra-rectal)

Produced similar effects to MDMA, amphetamines and cocaine.

NRG 1 (Naphyrone, also known as O-2482 and naphthylpyrovalerone)

Naphyrone is a medical drug derived from pyrovalerone that acts as a triple reuptake inhibitor, producing stimulant effects and has been reported as a « novel designer drug »

BUT pills labelled as NRG1 on the street and internet contain Mephedrone (or other cathinone)+cafein+…+…

*Synthetic cathinones

Desired effects

euphoria, increased energy, talkativeness, openness and increased sexual arousal

Signs and symptoms of toxicity

sympathomimetic toxidrome (25%) **and death**

Psychiatric (50%): psychotic symptoms (hallucination, paranoia, delirium, depression, suicidal ideas,..), agitation, addiction disorders (17%) (tolerance, craving+++,…)

"bath salt" cases describe agitated delirium and psychotic features lasting for days to even weeks

Somatic complications : headache, tachycardia, confusional states, rhabdomyolysis with renal failure or serotonin syndrome

NB: the cathinones family is **not detected** in conventional urine drug screenings

* Toxidromes

Poisoning syndromes (toxidromes)

Toxidrome	Mental status	Pupils	Vital signs	Other manifestations	Examples of toxic agents
Sympathomimetic	Hyperalert, agitation, hallucinations, paranoia	Mydriasis	Hyperthermia, tachycardia, hypertension, widened pulse pressure, tachypnea, hyperpnea	Diaphoresis, tremors, hyperreflexia, seizures	Cocaine, amphetamines, cathinones, ephedrine, pseudoephedrine, phenylpropanolamine, theophylline, caffeine
Anticholinergic	Hypervigilance, agitation, hallucinations, delirium with mumbling speech, coma	Mydriasis	Hyperthermia, tachycardia, hypertension, tachypnea	Dry flushed skin, dry mucous membranes, decreased bowel sounds, urinary retention, myoclonus, choreoathetosis, picking behavior, seizures (rare)	Antihistamines, tricyclic antidepressants, cyclobenzaprine, orphenadrine, antiparkinson agents, antispasmodics, phenothiazines, atropine, scopolamine, belladonna alkaloids (eg, Jimson Weed)
Hallucinogenic	Hallucinations, perceptual distortions, depersonalization, synesthesia, agitation	Mydriasis (usually)	Hyperthermia, tachycardia, hypertension, tachypnea	Nystagmus	Phencyclidine, LSD, mescaline, psilocybin, designer amphetamines (eg, MDMA ["Ecstasy"], MDEA)
Opioid	CNS depression, coma	Miosis	Hypothermia, bradycardia, hypotension, apnea, bradypnea	Hyporeflexia, pulmonary edema, needle marks	Opioids (eg, heroin, morphine, methadone, oxycodone, hydromorphone), diphenoxylate
Sedative-hypnotic	CNS depression, confusion, stupor, coma	Variable	Hypothermia, bradycardia, hypotension, apnea, bradypnea	Hyporeflexia	Benzodiazepines, barbiturates, carisoprodol, meprobamate, glutethimide, alcohols, zolpidem
Cholinergic	Confusion, coma	Miosis	Bradycardia, hypertension orhypotension, tachypnea or bradypnea	Salivation, urinary and fecal incontinence, diarrhea, emesis, diaphoresis, lacrimation, GI cramps, bronchoconstriction, muscle fasciculations and weakness, seizures	Organophosphate and carbamate insecticides, nerve agents, nicotine, pilocarpine, physostigmine, edrophonium, bethanechol, urecholine
Serotonin syndrome	Confusion, agitation, coma	Mydriasis	Hyperthermia, tachycardia, hypertension, tachypnea	Tremor, myoclonus, hyperreflexia, clonus, diaphoresis, flushing, trismus, rigidity, diarrhea	MAOIs alone or with: SSRIs, meperidine, dextromethorphan, TCAs, L-tryptophan

LSD: lysergic acid diethylamide; CNS: central nervous system; GI: gastrointestinal; MAOI: monoamine oxidase inhibitor; SSRI: serotonin reuptake inhibitor; TCA: tricyclic antidepressant.

*Synthetic cathinones

Risks linked to injection

Overdose

Acute abcess and cutaneous infection

Repeated injections in the same sites may cause damage to skin and veins, leading to ulceration, abscesses and collapsed veins

Injection of crushed or dissolved tablets: the tablet may partially dissolve and particles will eventually build up in the bloodstream leading to blocked veins, kidney problems and other complications, such as thrombosis.

HBV/HIV/HCV acquisition : but there is a lack of epidemiologic data..

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T. L'Yavanc1, M. Hamidi1, R. Missonnier1, G. Pialoux1

*1 Maladies infectieuses et tropicales, **Hôpital Tenon**, Paris*

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*SLAM and Risks from qualitative studies

Increase in frequency and quantity of product consumed,

Search for sexual partners on the sole criteria of slam,

Sexual relations and multiple sexual partners,

Reduced sexual consent and increased risk of aggression,

Increased of unprotected sex,

Increased blood-borne practices,

Less adherence to ARVs and PREP

Solitary use, isolation,

Work stoppages,

Occurrence of medical problems (mainly psycho-behavioral disorders: panic crisis, Paranoia ", delusions, suicidal thoughts, depressive disorders)

…

And in Belgium? Behavioral aspects (Jonas VAN ACKER, Observatoire du sida et des sexualités)
The Community point of view (Axel VANDERPERRE)

A. Batisse et coll. Use of psychostimulants in a sexual context: Analysis of cases reported to the French network of Addictovigilance Centers. Therapie. 2016 Oct;71(5):447-455
Bourne et coll. Illicit drug use in sexual settings (« chemsex »à and HIV/STI transmission risk behaviour among gay men in South London: findings from a qualitative study. Sex transm infect 2015 dec:91(8):564-8

*Other risks linked to chemsex/slam

Common drug-drug interactions with antiretroviral drugs

Drug-drug interactions with HIV therapy can occur with prescribed drugs, over-the counter drugs, herbal therapies and social/recreational drugs (see examples below). Always ask your HIV specialist, general practitioner or pharmacist before taking any new medicine .

Effect	HIV drugs	Concomitant drugs/disease
Absorption: gastric pH	• atazanavir • rilpivirine	• antacids • H2-receptor antagonist (cimetidine, famotidine, ranitidine) • proton pump inhibitors (lansoprazole, omeprazole, pantoprazole)
Absorption: chelation	• dolutegravir • elvitegravir • raltegravir	• antacids • calcium, iron, magnesium supplements
Metabolism: HIV drug impacts the concomitant drug	• protease inhibitors • elvitegravir/cobi • efavirenz • etravirine • nevirapine	• anti-infectives: hepatitis C drugs, tuberculosis drugs, antifungals (rifampicin, rifabutin, itraconazole, simeprevir, daclatasvir) • cancer drugs • cardiovascular agents: statins, calcium channel blockers, beta blockers (diltiazem, amiodarone, metoprolol, atorvastatin) • corticosteroids (oral, inhaled topical, injection), hormonal contraceptives (desogestrel, fluticasone, dexamethasone) • psychotropics: benzodiazepines, antidepressants, antipsychotics (alp[illegible]zolam, midazolam, escitalopram, paroxetine, quetiapine) • recreational drugs/narcotics (ketamine, heroin, morphine) • transplant drugs: (ciclosporin, tacrolimus) • other: ergot derivatives (e[illegible])
Metabolism: HIV drug is impacted by the concomitant drug	• protease inhibitors • elvitegravir/cobi • efavirenz • etravirine • nevirapine • rilpivirine • maraviroc	• anti-infectives: hepatitis ((rifampicin, rifabutin, itrac • anticonvulsants (carbam • other: St John's wort, acti
Nephrotoxicity	• tenofovir	• NSAID (diclofenac) • renal impairment

Examples of medications (the list is not exhaustive)

For detailed informations, go to the Liverpool drug-drug interactions website: www.hiv-drugi
Possibility to download the free Liverpool drug-drug interactions app (HIV i-chart) on mobile

Interactions between chems and medications
(especially ARV)

		ATV/r	DRV/r	LPV/r	EFV	ETV	NVP	RPV	MVC	DTG	RAL	ABC	FTC	3TC	TDF	ZDV	E/C/F/TAF	E/C/F/TDF
Stimulants	Amyl nitrate (Poppers)	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Cocaine	↑[ab]	↑[a]	↑[ab]	↑[c]	↑[c]	↑[c]	↔[b]	↔	↔	↔	↔	↔	↔	↔	↔	↑[a]	↑[a]
	Ecstasy (MDMA)	↑[d]	↑[d]	↑[d]		↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[d]	↑[d]
	Mephedrone	↑[e]	↑[e]	↑[e]		↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[e]	↑[e]
	Methamphetamine	↑	↑	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
Depressants	Alcohol	↔	↔	↔[f]	↔	↔	↔	↔	↔	↔	↔	↑	↔	↔	↔	↔	↔	↔
	Alprazolam	↑[g]	↑[g]	↑[g]	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Codeine	↑[i]	↑[i]	↑[i]	↓[i]	↓[i]	↓[i]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[i]	↑[i]
	Diazepam	↑	↑	↑	↓	↑	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	GHB (gamma hydroxybutyrate)	↑[j]	↑[j]	↑[j]	→	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[j]	↑[j]
	Heroin (Diamorphine)	↔[k]	↔[k]	↔[k]	↔[k]	↔[k]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[k]	↔[k]
	Hydrocodone	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Hydromorphone	↓	↓	↓	↑	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Ketamine	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Pethidine (Meperidine)	↓[l]	↓[l]	↓[l]	↓[l]	↓[l]	↓[l]	↔	↔	↔	↔	↔	↔	↔	↔		↑?	↑?
	Methadone	↓[b]	↓16%	↓53%[b]	↓52%	↑6%	↓~50%	↓16%[b]	↔	↔	↔	↓	↔	↔	↔	⇑	↑7%	↑7%
	Midazolam (oral)	↑[m]	↑[m]	↑[m]	↓[h]	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔		↑[m]	↑[m]
	Morphine	↓[n]	↓[n]	↓[n]	↑	↔[n]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔[n]	↔[n]
	Oxycodone	↑	↑	↑	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑	↑
	Temazepam	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
	Triazolam	↑[m]	↑[m]	↑[m]	↓[h]	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[m]	↑[m]
Hallucinogens	Cannabis	↓[o]⇓	↓[o]	↓[o]	↑[p]	↑[p]	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↓[o]	↓[o]
	Lysergic acid diethylamide (LSD)	↑	↑[q]	↑[q]	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[q]	↑[q]
	Phencyclidine (PCP, angel dust)	↑[r]	↑[r]	↑[r]	↓	↓	↓	↔	↔	↔	↔	↔	↔	↔	↔	↔	↑[r]	↑[r]

*Other risks linked to chemsex/slam

The use of alcohol, cocaine or amphetamines can lead to **dehydration** and drying of the sexual mucous membranes, increasing the risk of irritation and therefore transmission of STIs. This drying also increases the risk of condom breakage.

The pain-killing effect of certain substances (cocaine, GHB, ketamine, etc.) combined with drying of the mucous membranes **increases the risk of lesions of the mucous membranes**.

Problems with erectile dysfunction (caused by cocaine and speed) can lead to a slippage of the condom or cause some people not to use protection.

*Other risks linked to chemsex/slam

The combination of these substances (alcohol + stimulants or GHB + alcohol, for example) **decreases self-control** due to disinhibition and certain aphrodisiac effects (GHB, poppers) or stimulants (Cocaine, ecstasy).

The combination of ecstasy and an erection stimulating substance (such as Viagra®, Kamagra®, etc.) promotes prolonged sexual intercourse and thus leads to a greater risk of irritation of the sexual mucous membranes.

The sharing of injection or sniffing equipment poses a significant risk of contamination by HIV, hepatitis and syphilis.

* Conclusions

Sex and substances have always been linked for centuries

All substances uses are not problematic

The phenomenon of chemsex seems to increase, particularly in MSM (especially slamming)

The data in the literature is currently insufficient to confirm or deny the link between the use of psychotropic substances or synthetic drugs during sexual intercourse (chemsex) and the acquisition of STIs with HIV. However, there appears to be in the current data a presumption link in MSM

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* Conclusions

Qualitatives studies show psycho-social damages associated with chemsex/slam

Physicians (and especially HIVclinicians) must be “aware” of the physical and psycho-social damages associated with chemsex/slam, what are the risks link to them and must be teached about specific interventions/accompaniments: listening, not judging, questioning, promoting risk reduction messages, taking care or referring

Harm reduction policy requires specific MSM interventions on both sexual and drug addiction networks

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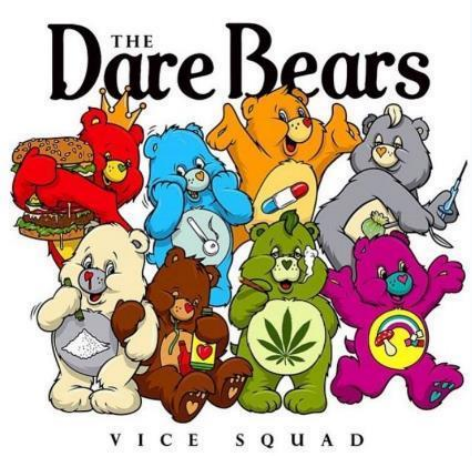
Thank you for your attention



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