

CHEMSEX – STIs in Chemsex and the implication for treatment in ARV treatment

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CHEMSEX – STIs in Chemsex and the implication for treatment in ARV treatment

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Definition

- “is a word invented on geo-sexual networking apps by gay men (and later adopted by the Gay men health sector) that defines a syndemic of specific behaviours associated with specific recreational drugs, and is particular to a specific high risk population”
- Media have included many drugs as part of this syndrome but in reality the drug combination should only include ...for accurate definition..

“Use of recreational drugs or ‘chems’ to heighten sexual experience (sexualized drug use) “

Drugs include

- G- gammahydroxybutyrate (GHB)/gamma-butyrolactone (GBL)



- Synthetic cathinones-Mephedrone-(Meow Meow, M CAT) – previously known as head shop products/legal highs



- Crystal methamphetamine (crystal meth/Tina /T/ ice)
- Axillary drugs may include
 - Ketamine, Special k
 - Cocaine
 - Ecstasy
 - Viagra

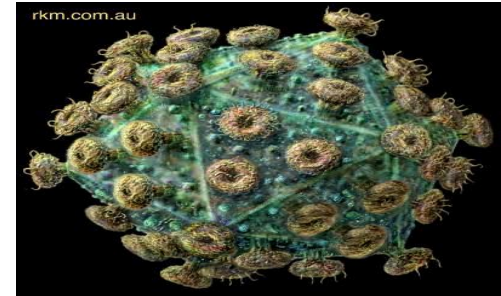


Why is it important ?

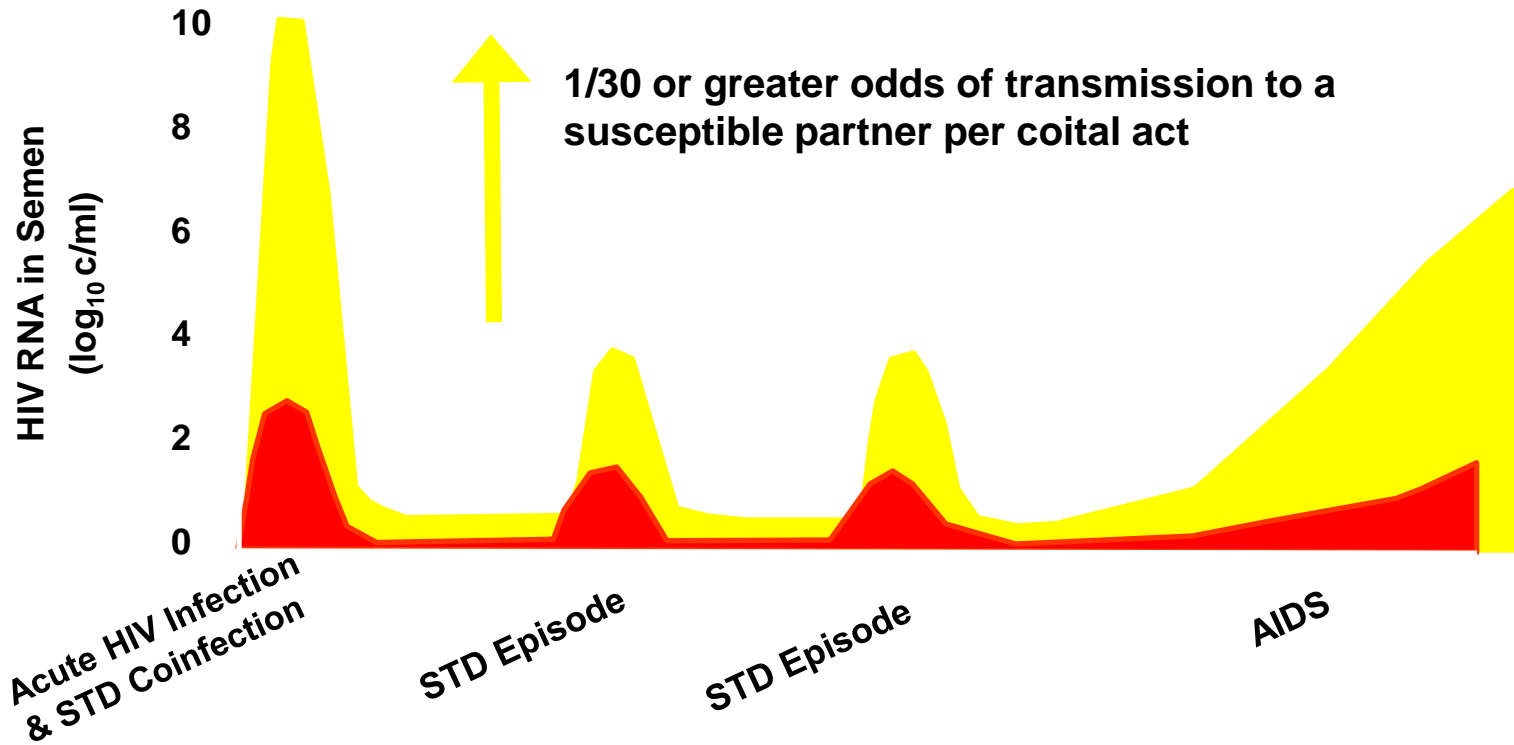
- Irish and Global increase in STI rates +HIV
- 2016
 - 60% rise Gonorrhoea
 - 50% rise in new HIV vs this time last year
 - Syphilis outbreaks Cork +Dublin
 - Sexually acquired HCV GUIDe
- Recreational drug use closely social networking

SYNERGISM

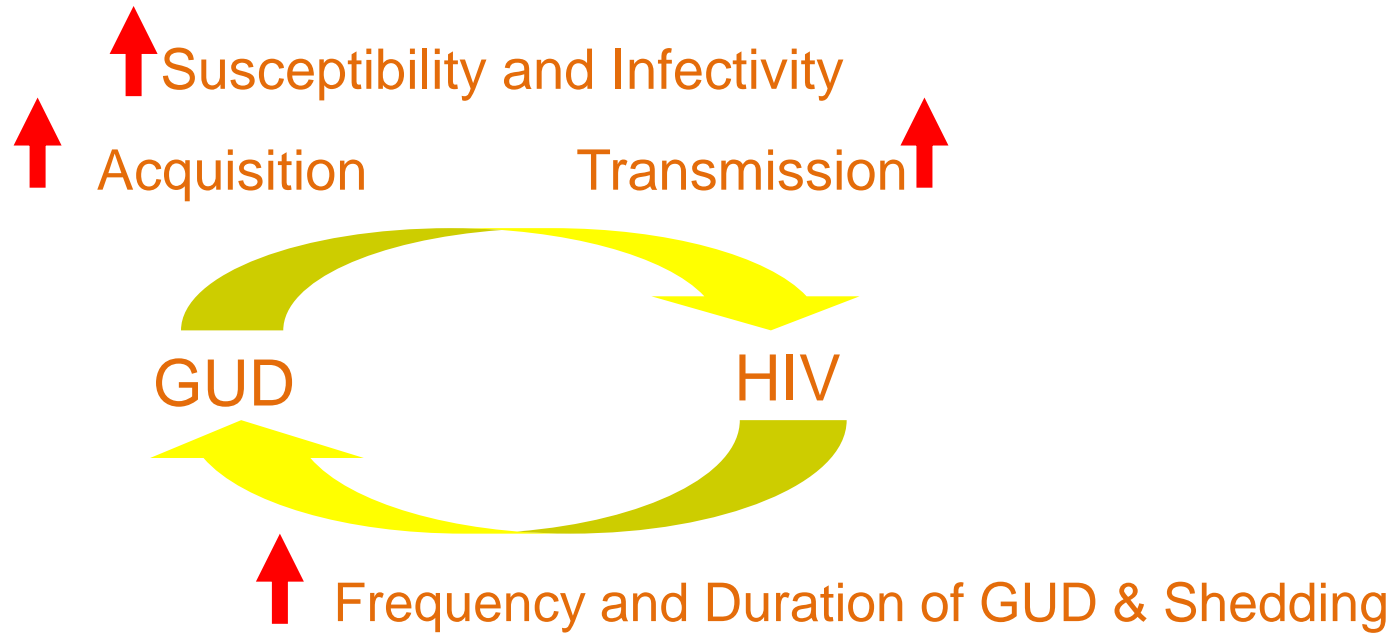
Epidemiological synergy between Sti+HIV acquisition



Amplified Transmission of HIV



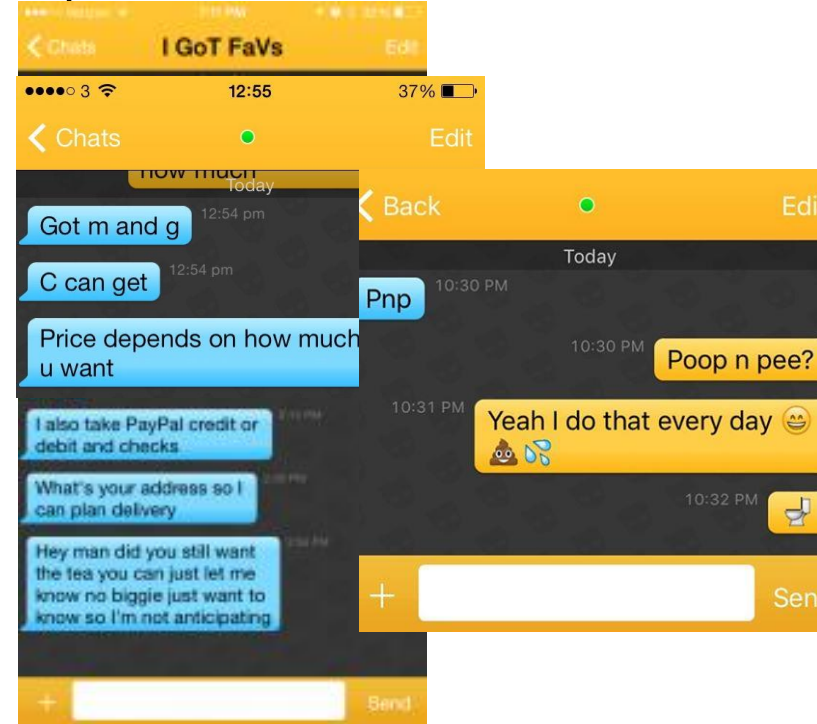
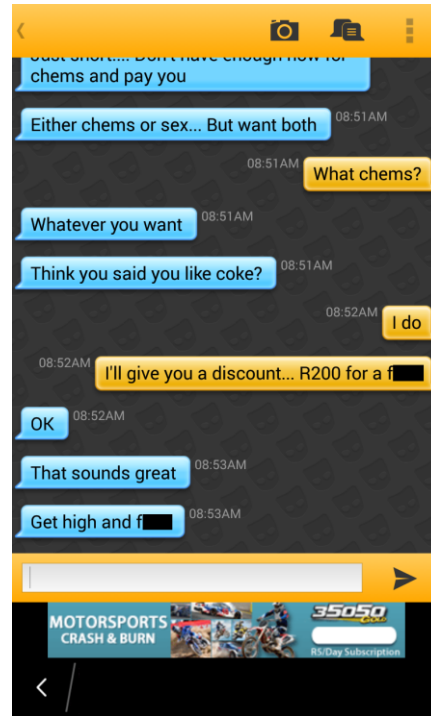
Genital Ulcer Disease and HIV Interactions



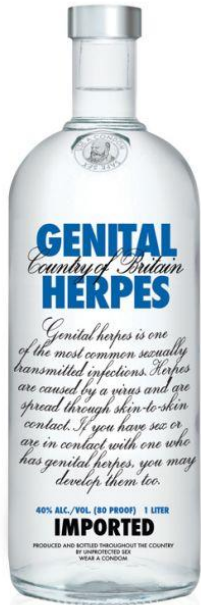
1-Genital ulcer disrupts epithelial / mucosal surface

2-Recruitment of inflammatory cells, CD4 lymphocytes and macrophages to site of mucosal break

Synergy between geo-sexual networking and chems ("PnP" "Wired")



Traditionally



20% of females between the age of 15 & 19 say **alcohol** is the main reason they first had **sex**

Genital herpes is one of the most common sexually transmitted infections. Herpes are caused by a virus and are spread through skin-to-skin contact. If you have sex or are in contact with one who has genital herpes, you may develop them too.

40% ALC./VOL. (80 PROOF) 1 LITER
IMPORTED



Sexually Transmitted Infections are on the rise, wear a condom.



Direct Drug Related Effects



Supreme confidence



Heightened arousal
Awake x hours-days



Sexually disinhibited



YIN



Direct Drug Related Effects



G “dropping”

Resp depression, arrest



Hyperthermia, tachy,
rhabdomyolysis, renal
failure, death



Paranoia, depression,
severe anxiety, psychosis,
self harm and extreme
aggression



Epidemiology

- First described Berlin, Amsterdam, London, then Sydney, initially **anacetodally** in GUIDe and GMHS in Dublin

now

- Emergent problem, emergent data

Chemsex and the city: sexualised substance use in gay bisexual and other men who have sex with men

- 59% (n = 73/124) reported chemsex, 13% (n = 15/116) injected
- Drugs: Mephedrone (n = 48), GHB/GBL (n = 38), Crystal Meth (n = 28) and Cocaine (n = 8)
- 1/3 disclosed > one chemsex session/month
- Chemsex significantly associated : transactional sex, group sex, fisting, sharing sex toys, HIV and hepatitis sero-discordancy (p < 0.05), more reported sexual partners (median 3 vs. 2 in past 3 months; p < 0.0001) and HIV positivity (35% vs 7% p < 0.0001)
- STIs were diagnosed more frequently; Gonorrhoea (39% vs. 6% p < 0.0001), Chlamydia (11% vs. 4% p = 0.05), Hepatitis C (5% vs 0.3% p = 0.03)
- PEPSE was more frequently prescribed (14% vs. 2% p = 0.001)
- 42% of patients perceived chemsex to have had an adverse consequence on their physical/mental health or career

Sex, drugs and smart phone applications: findings from semi structured interviews with men who have sex with men diagnosed with *Shigella flexneri* 3a in England and Wales

- Outbreak 2012 UK *Shigella flexneri* 3a
- 53 men, 34 sexually active
- Median 22 sex partners in past year
- 63% HIV+ve and sero-sorted
- 62% had used chemsex drugs crystal meth, mephedrone, and γ -butyrolactone/ γ -hydroxybutrate
- Many had had gonorrhoea (68%) and chlamydia (52%)
- HIV-positive serostatus was associated with both insertive anal intercourse, fisting and use of web applications that promote and facilitate unprotected sex (adjusted OR=19.8, $p=0.02$)

- EMIS
(European Internet study of men who have sex with men) 44 countries



The Irish Story-MISI 2015

=The Men who have Sex with Men Internet Survey Ireland 2015



MISI 2015 > 3000 interviewed

- Almost 50% lived in Dublin
- Respondents aged between 18 and 80 and the median age was 30
- 86% were born in Ireland, 14% were born outside of Ireland
- 79% identified as gay, 13% bisexual, 2% as straight and 5% did not use a term to self identify

- Alcohol
 - 90% in past year
 - Binge drinking (>6 standard drinks per sitting) 58% reported this as their normal type of drinking
- Smoking
 - 33% self reported , 12 % occasional smokers
 - Younger, lower education levels
 - >50% HIV +ve patients reported smoking



- Recreational Drugs
 - 36% in the last year
 - Most commonly drugs were cannabis (28%), ecstasy (17%) cocaine (13%)
 - < 25, students, HIV+ve, those living in Dublin
- Chemsex Drugs
 - 7% in past year, including Ketamine, mephedrone, crystal meth and G
 - Men who higher education, Dublin, HIV+ve, late twenties
 - 2% IVDU

Population at large

- 53% of men in Ireland reported binge drinking on a typical drinking occasion¹
- 24% of men in Ireland were current smokers²
- 27% of Irish adults had ever used drugs in their lifetime³

1. Department of Health & Ipsos Mrbi. 2015. Healthy Ireland Survey 2015. Summary of Findings

2. Ibid

3. National Advisory Committee on Drugs. National Drug Prevalence Survey in 2010/11

To assess the prevalence of recreational drug use for or during sex among attendees at the GMHS (Gay Men Health Service)



GMHS Background

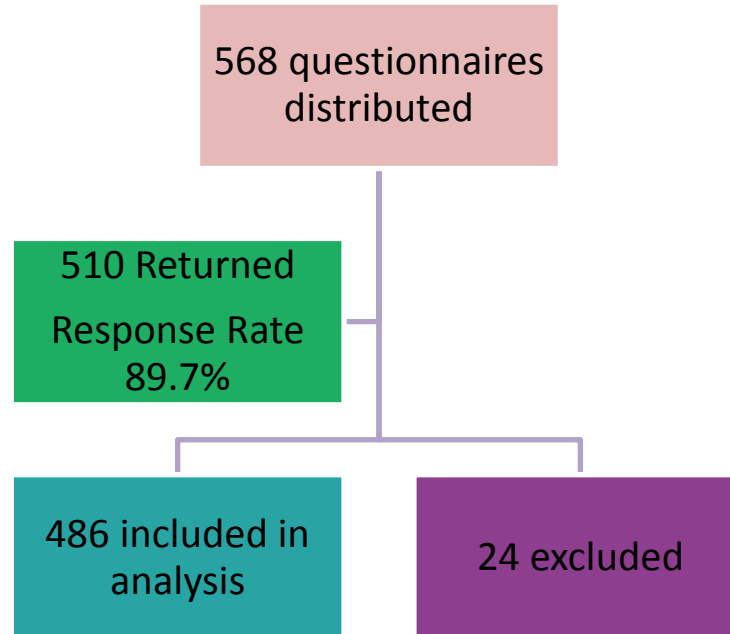
- THE GMHS is Ireland's only MSM-specific sexual health clinic
- Over 6,000 men attended for screening and management in 2014, and the number of men attending annually increased by over 40% in the five years to 2014
 - (despite a 36% decrease in funding over that timeframe)

Methods

Paper questionnaire offered to all attendees at GMHS over 6wks, June-July 2016

- 28 questions
 - Demographic history
 - Sexuality
 - STI history
 - Sexual behaviours
 - Alcohol consumption
 - Chemsex use
- English and Portuguese
- Anonymous data collection
- Ethics Approval St. James/AMNCH REC

Results



Results

Demographics

- Median age 29 years (range 18-77)
- 60% aged between 25 and 39 years
- 65% had a university degree or higher education
- 58% born in Ireland

Sexuality

- 90% identified as gay/homosexual
- 68% were single

Results

Chemsex practices

30.5% had used drugs for/during sex within previous 12 months



3.5% had used drugs not considered to be 'chemsex drugs'



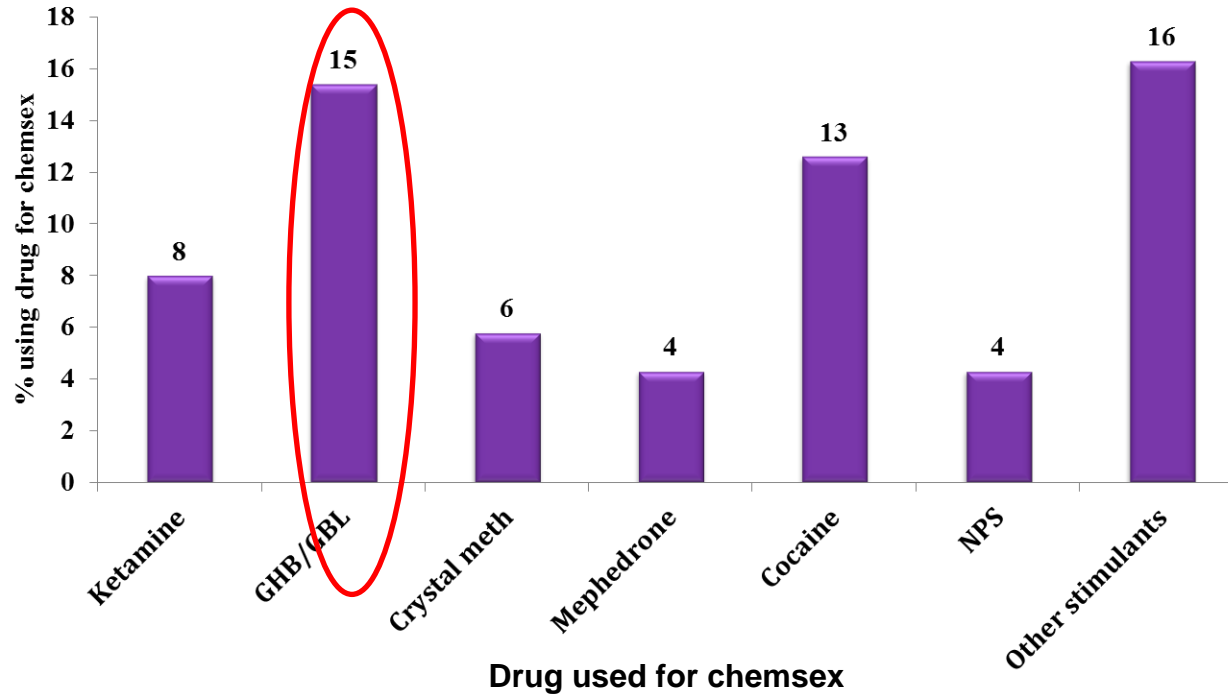
27% had engaged in "chemsex"

Results

- Chemsex more common in 25-39 years old (31%) vs. those in the 18-24 and 40+ age groups (20%)
- No other significant differences by socio-demographic variables
- 56% of respondents met their partners for chemsex through phone apps or online

Results

G was the most commonly used drug for chemsex



Direct Drug-Related Harms

Polydrug use

- Half of those engaging in chemsex had used ≥ 2 drugs the last time they had chemsex

Injecting drug use

- 9% of those engaging in chemsex had ever injected drugs for chemsex

Loss of consciousness

- 23% of respondents/their partners had ever lost consciousness as a result of chemsex

Sexual risk behaviours associated with chemsex

Multiple partners

- Overall, 36% had had >10 sexual partners in previous 12 months
- 51% of those engaging in chemsex had >10 partners in previous 12 months (p<0.001)

Sexual risk behaviours associated with chemsex

Anal Sex

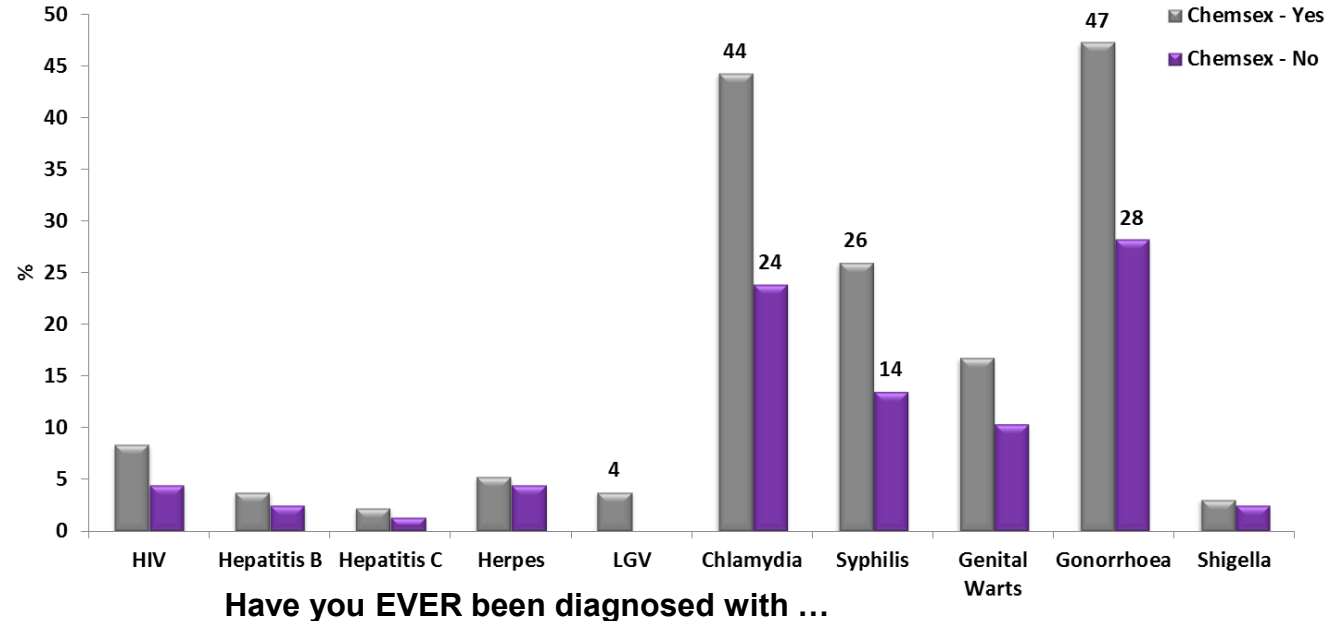
- Half of those engaging in chemsex had ≥ 6 partners for anal sex in previous 12 months
- Compared to 30% of those who had not engaged in chemsex ($p < 0.001$)

Unprotected Anal Sex

- Overall, 32% had had UAI at last anal sex
- No significant difference seen according to whether men did (39%) or did not engage (29%) in chemsex ($p = 0.073$)

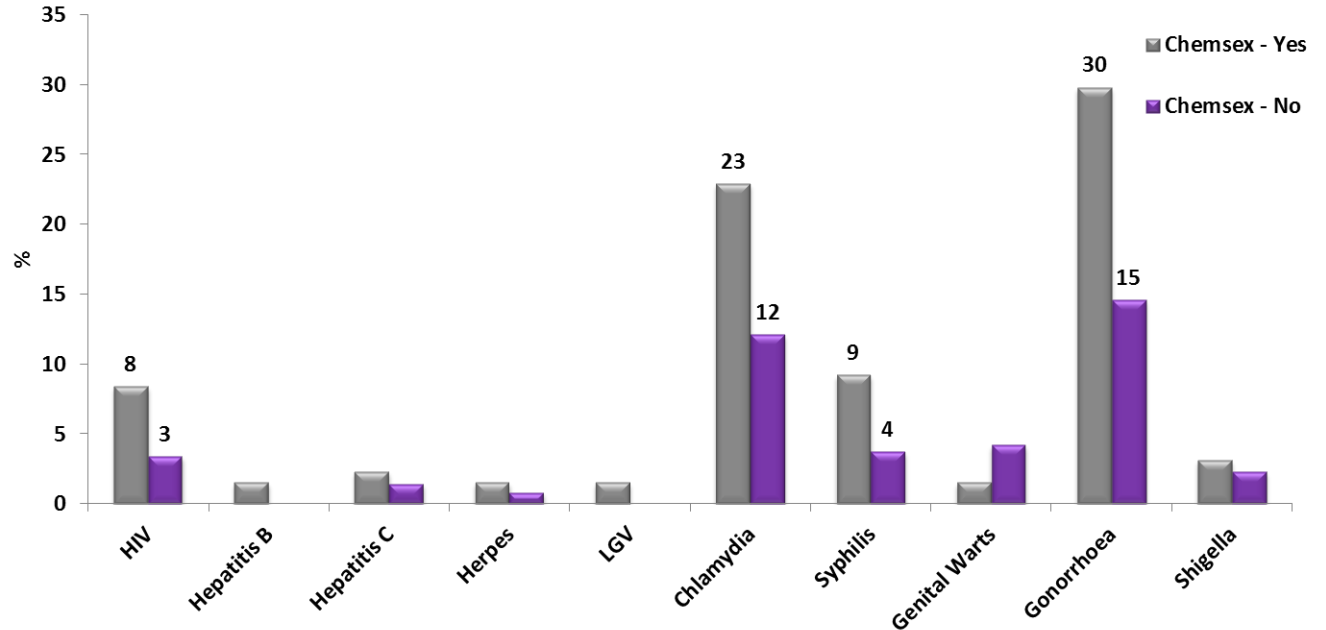
Significant positive association seen between engagement in chemsex and **EVER** having had

- LGV OR 1.04, 95%CI 1.01-1.08
- Chlamydia OR 2.53, 95% CI 1.66-3.85
- Syphilis OR 2.24, 95% CI 1.37-3.68
- Gonorrhoea OR 2.30, 95% CI 1.52-3.46



Significant positive association seen between engagement in chemsex and having treatment in the last year for

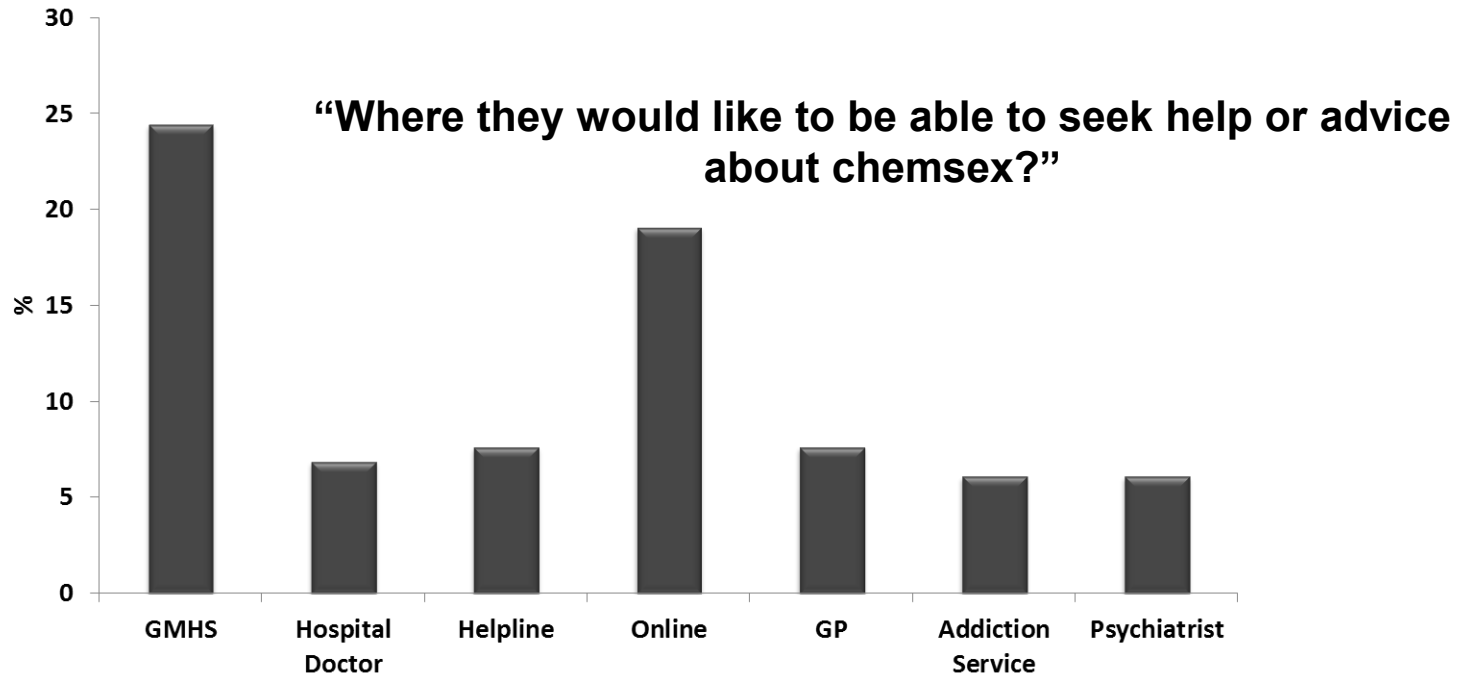
- HIV OR 2.62, 95% CI 1.23-6.10
- Chlamydia OR 2.16, 95% CI 1.29-3.61
- Syphilis OR 2.65, 95% CI 1.18-5.99
- Gonorrhoea OR 2.47, 95% CI 1.53-3.98



In the PAST YEAR, have you been treated for ...

Help seeking and chemsex

- 3 would like help or advice regarding chemsex
- 3s agreed that a drugs advisor should be available for attendees at GMHS



Limitations to be aware of...

1. Survey of GMHS only – not representative of MSM in general
2. Relatively broad definition of chemsex
 - MISI = crystal meth, G, ketamine and/or mephedrone – 7%
 - This study – 18%
3. Univariate analysis only so far – Multi-variate analysis to follow
 - This does not affect the raw data

Summary of Findings

- 1 in 4 men
 - Attending GMHS have engaged in chemsex
 - Who engage in chemsex (or their partners) has lost consciousness
 - Who engage in chemsex say it is impacting negatively on their lives
- There appears to be an association between chemsex &
 - Sexual risk taking behaviours
 - STIs and HIV
- Those engaging in chemsex are not a “hidden population”
- A substantial number of men want help and or advice re chemsex
- They would like to receive this advice within sexual health settings and online

Recommendations

1. A referral pathway and specialist service should be established
2. This service should be linked with an in-patient unit
3. Staff working in sexual health services should receive brief intervention training
4. Those tasked with surveillance/control of STIs should receive training in relation to drug use in general and chemsex in particular
5. The national sexual health training programme—envisaged under the national sexual health strategy - should include a module on chemsex
6. Liaison with emergency medicine to ensure that sequelae of chemsex are accurately recorded & that opportunities to promote harm reduction **are maximised**


Recommendations

7. Future drug awareness campaigns should be relevant to MSM. Should be coordinated between sexual health & addiction services
8. The National Drugs Strategy should address the issue of chemsex in MSM and should address all aspects of this issue, including supply reduction, prevention (including education and awareness), treatment, rehabilitation and research
9. Further research is required
 - Quantitative
 - ✓ Assess the prevalence of chemsex use within the wider MSM community
 - ✓ Assess the prevalence within MSM who are living with HIV
 - ✓ Injecting drug use among MSM
 - Qualitative
 - ✓ Motivations for engaging in chemsex
 - ✓ Benefits and harms of engaging in chemsex
 - ✓ Identify and develop the support services

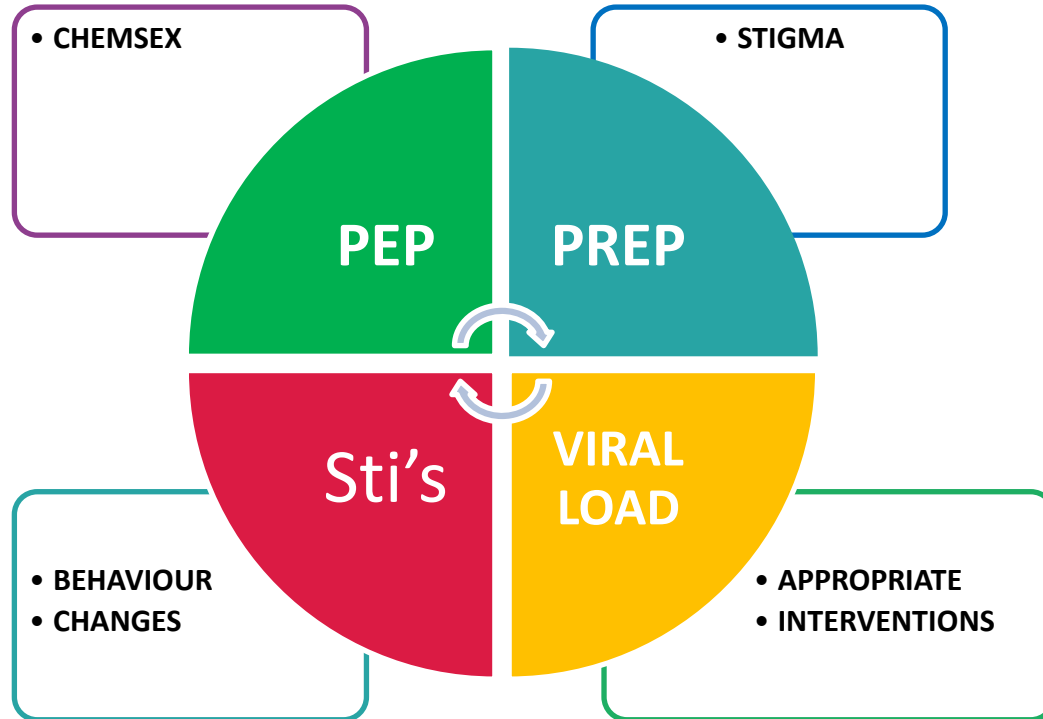
Acknowledgements

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- Dr. Ford Hickson, London School of Tropical Medicine and Hygiene
- Mr. Mick Quinlan, Manager (Retired), GMHS
- All of the staff at the GMHS who facilitated the day-to-day conduct of the study

What else?

- Addiction potential/ behaviours becoming  recognised
- Assault / lack of recognition
- Different SE group to usually found with drug dependency issues, often injecting also

- Provider knowledge can be poor
- Entire loss of weekends, binges can last 48-7 hours, major work, family, relationship fall out
- Depression
- €€€€€€€€
- Psychosexual morbidity-sexual experiences “will never be as good without chems”



Resources/Current Work

- Dublin collaboration addiction services /sexual health services, Ana Liffey project, Drugs.ie -referral pathways, training days
- G-Card
- <http://www.davidstuart.org/professionals>
- www.Neptune-clinical-guidance.com (Novel psychoactive Treatment UK Network)

Saturday, March 23, 2013

Hi where you located?

5:44 PM

Saturday, March 23, 2013

Out of your league

6:46 PM

em to



Brussels
December 16
2016





CHEMSEX –

STIs in Chemsex and the implication for treatment in ARV treatment



Dr. med. Stefan Esser
University Hospital Essen

Definition Chemsex

- **Chemsex** is a subculture of recreational drug (Chems) users who engage in high risk sexual activities under the influence of drugs within groups.
- The term is often but not always used by and associated with gay men and other men who have sex with men (MSM). The drug of choice is typically methamphetamine, known as *tina* in the gay community, but other drugs are also used, such as mephedrone, GHB, and GBL.
- Those participating in "party and play" gatherings have a higher rate of acquiring sexually transmitted diseases by having unprotected anal sex with large numbers of sexual partners.



Party drugs and Chems

- Cocaine, Crack
- Ecstasy („E“, MDMA, Molly),
- Amphetamine (Speed),
- **Crystal Meth** (Methamphetamin, Crystal, Tina, Ice, Vint)
- **GHB/GBL** (Liquid Ecstasy, K.O. Tropfen)
- **Mephedron** (4-MMC., Mep, Miau)
- **Ketamine** (kit kat, Special K, Kate, Kitty)
- LSD
- Herbage (Trance, Cloud 9, Rave, Energy, Pulse)
- Mushrooms
- Bath salts
- Felloe-cleaner

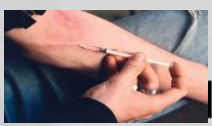


Drug use together with sex in MSM

Internet survey 2013 of the AIDS-Hilfe NRW (n>1000)

Drug use	% Generally	Drug use	% During the last 14 days
Poppers	31.8	Poppers	27.1
Alcohol	22.8	Alcohol	16.1
Cannabis	11.8	Cannabis	10.9
GHB	5.4	Amphetamine	3.9
Amphetamine	6.1	Ecstasy	3.5
Heroin	0.4	Heroin	0.3

Statement i.v. drug use: always 3.1%; occasional 8.8%; never 88.1%



Die häufigsten Rauschmittel

Generell		In den letzten 14 Tagen	
Poppers,	31,8 %	Poppers,	27,1 %
Alkohol,	22,8 %	Alkohol,	16,1 %
Cannabis,	11,8 %	Cannabis,	10,9 %
GHB,	5,4 %	Amphetamin,	3,9 %
Amphetamin,	6,1 %	Ecstasy,	3,5 %
Heroin,	0,4 %	Heroin,	0,3 %

Frage 15: Wie oft konsumierst Du folgende Rauschmittel beim Sex? (häufig/immer)

Frage 16: ... in den letzten 14 Tagen? (häufig/immer) N=1041



Umsetzung Safer-Sex-Wissen

	Legale Rauschmittel	Illegale Rauschmittel
Sehr schlecht	2,6 %	7,9 %
Schlecht	2,0 %	5,6 %
Teils-teils	19,9 %	21,9 %
Gut	30,2 %	26,9 %
Sehr gut	41,8 %	33,2 %

**Consumers of legal drugs (Alcohol, Poppers):
N=493; median age 30-39**

**Consumers of illegal drugs (all others) :
N=521; median age 40-49**



(Drug Survey 2014) Not representative Survey: Drug use in Germany Journal ZEIT (n=22.359)

- Drug use in 2014
 - 96% Alcohol
 - (8% severe Alcohol problem)
 - 46% Cannabis
 - 22% Ecstasy
 - 13% Cocaine
 - 0,01 % Crystal Meth



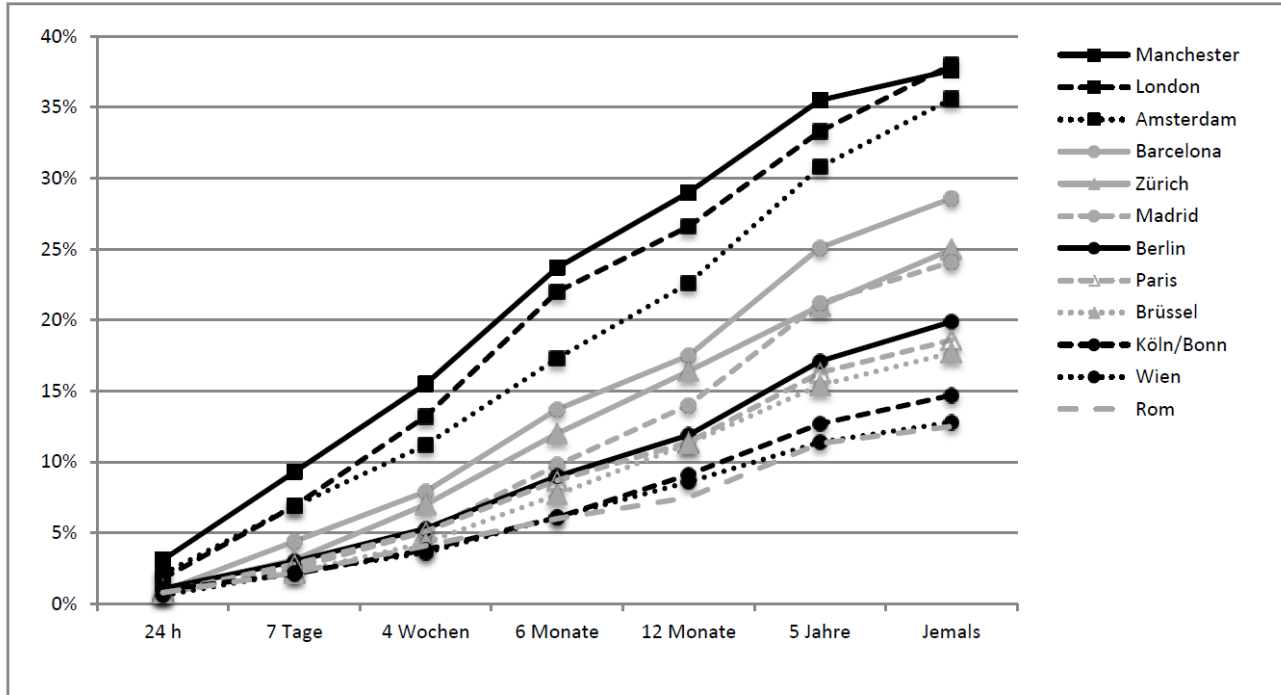


Abbildung 1: Anteil in EMIS befragter MSM mit Gebrauch von GBL/GHB, Ketamin, Mephedron oder Crystal Meth zu unterschiedlichen Zeitpunkten (Zeitraum des letzten Konsums, kumuliert, in %) in 12 ausgewählten europäischen Städten



THE HORRORS OF METHAMPHETAMINES



SKIN

Acne appears or worsens. Obsessive skin-picking often causes meth users' faces to be covered in small sores and scarring - the result of a common sensory hallucination of bugs crawling beneath the skin.



FACIAL MUSCULATURE AND FAT

Meth, like other stimulants, suppresses appetite and can lead to undernourishment due to long periods without eating. Over time, the body begins consuming muscle tissue and facial fat, giving users a gaunt, hollowed-out appearance.



TEETH AND GUMS

"Meth Mouth" is caused by several factors: tooth enamel is dissolved by the harsh chemicals of the drug, the blood vessels contained in healthy gums and teeth shrink, increasing the rate of decay, the production of saliva diminishes, allowing harmful acids to further damage the mouth, cravings for sugary foods increases with meth use, oral hygiene is typically neglected while high, and heavy tooth-grinding is an additional side effect of the drug.



2 AGE 25



1 AGE 23

3 AGE 25

Public figures consumers of drugs



FRÜHER
ZOG SIE ALLE BLICKE
AUF SICH
HEUTE ZIEHT SIE
CRY STAL

CRYSTAL METH — MACHT SEHR
SCHNELL — SEHR ABHÄNGIG



Universitätshautklinik Essen



DAH: Berlin-Party-Pack



Das Partypack vom Berliner Projekt „Fixpunkt“ bietet Drogenkonsumenten nicht nur Röhrchen für ein „safer sniefen“, sondern auch Ohrenstöpsel gegen zu laute Musik sowie Kondome und Gleitmittel für Safer Sex. Foto: tau



Anale Applikation statt Drogen spritzen. Berliner Präventionsprojekte verteilen das „Up Your Bump“-Päckchen in der Partyszene, um Drogenusern eine Alternative zum Injizieren zu bieten. Foto: tau

Sexual risk behavior, sexually transmitted infections (STIs) and HIV-transmission risks in HIV-positive men, who have sex with men (MSM) – approaches for medical prevention work

Patients and Methods

- 233 HIV-positive MSM in the HIV out-patient clinic of the University Hospital Essen in Germany were
 - Systematically interviewed during a two year period about their sexual behavior and drug use during the last year
 - Collected Subsequent their medical data from the first HIV-diagnosis until January 2014

Symptomatic STIs during a one year observation period (N=233 HIV+MSM) Diagnosis without systematic STI screening

- Acute active Syphilis 9.8%
- Gonorrhoea 4.3%
- Genitoanal Chlamydia-Infection 2.3%
- Other bacterial STI 1.7%
- Acute Hepatitis C Infection 1.3%
- Symptoms of genitoanal Herpes-Infection 3.0%
- New genitoanal HPV-Lesions 8.2%

→ 81.3% of the HIV+MSM with acute STIs during the one year observation period had already one or more STIs in their medical history additionally to HIV



Risk factors for the incidence of STIs in HIV-positive MSM during the annual observation period (n=233)

Risk factors	OR ^{““}	95% CI ^{““}	p-Value
Unprotected sexual intercourse	2.16*	1.02 – 4.58	0.044
Personal drug use at sexual intercourse	8.63*	1.46 - 51.14	0.018
Changes of medication during the OP [“]	5.39**	2.33 - 12.44	0.000

* the correlation is on the 0.05-level significant; ** the correlation is on the 0.01--level significant

Results of the multivariate logistic regression analysis:

OP[“] = annual observation period, OR^{““} = Odds Ratio, CI^{””} = Confidence interval





Drug use and sexually behavior in HIV-positive (HIV+) MSM

- Anesthetic drug use of HIV+ MSM (>5%)
 - 87.7% Alcohol
 - 58% Amyl nitrite, 57.5% Cannabis, 22.9% Amphetamine, 12.2% Hallucinogen,
 - 8.9% Cocaine, 6.8% Tranquilizer and Benzodiazepine, 6.1% dissociative Anesthetic
- HIV+ MSM had anamnestic condom less insertive (32.9%) and/or receptive (34.6%) anal intercourse in the last 12 months
- 39.3% of the HIV+ MSM took legal or illegal drugs, when they had sex
- Drug use was associated with more frequent sexually risk behavior
- Drug use and sexually risk behavior were associated with higher STI-incidence



Parameters for the indication of intensified medical prevention work in HIV-positive MSM

Anamnesis

Use of Poppers

Use of Drugs and/or Alcohol

Unprotected sexual intercourse

STIs

Younger age

Sex partners > 20/year

HIV-Parameter

Adherence problems

Changes of medication in the last
12 months

Multi-resistant HIV

Higher CD4+- Nadir

STI-Diagnosis

STI during the last twelve
months





Drug use, sex and HIV

- HIV-positive MSM use drugs more frequent than the general population
 - Poppers, Cannabis, Cocaine, Ecstasy, Amphetamine, Crystal Meth, GHB/GBL, Mephedron, Ketamine
- Risks and long-term-toxicities of chemsex and party-drugs are not known
- Interactions between drugs and ART are not known
- Drug use increases sexually risk behavior and STI incidence
- Compliance-problems are more frequent in drug users
- Prevention concepts?





HPSTD-Ambulanz
Universitätsklinikum Essen
Tel. 0201 723 3696



Vergessen ist ansteckend



The Swiss Aids Prevention Campaign 1998

**STOP
AIDS**



Thank you for your attention!