Let's Talk about Sex!
Differences in Reported Risk Behaviour between Recently HIV Infected Men Having Sex with Men and HIV Negative Controls

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Background

Data on knowledge, attitudes, behaviour and practices (KABP) of persons with recent HIV infections (RI) in comparison to matched controls with negative HIV test result can provide information on patterns of current risk behaviour and help to re-focus prevention strategies.

Methods

From March 2008 through November 2009 clinical and socio-demographic data of persons **newly diagnosed with HIV (cases)** and **persons who tested negative for HIV (controls),** matched for age, sex, and HIV transmission route, were collected by physicians in six sentinel regions in Germany. To distinguish recent (< 5 months) from longstanding (> 5 months) infection in new HIV diagnoses, the BED IgG-capture ELISA was performed from dried blood spots. Cases and controls completed a KABP-questionnaire. Reported risk behaviour in the previous six months of cases with RI was compared to controls. To detect differences in reported risk behaviour between cases with RI and controls, unadjusted Odds Ratios (OR) were calculated and multivariate analysis was performed.

Conclusions

There were no significant differences regarding the knowledge of HIV transmission risk and testing behaviour among recently HIV infected MSM and HIV negative controls. However, differences in risk behaviour between cases and controls were observed regarding unprotected sex with partners of unknown HIV serostatus, and duration of primary partnership at the time of diagnosis, suggesting HIV transmission in newly formed partnerships. Addressing serostatus with sex partner before engaging in sexual activities seems to be protective for contracting HIV. Having unprotected anal sex with persons of unknown serostatus and with persons met online and acquaintances are other important risk factors for HIV transmission that should be addressed in prevention activities for the MSM community.

References

Bätzing-Feigenbaum J, et al. (2009): Implications of and perspectives on HIV surveillance using a serological method to measure recent HIV infections in newly diagnosed individuals: results from a pilot study in Berlin, Germany, in 2005 – 2007. HIV Medicine 10: 209-218

Bätzing-Feigenbaum J, Loschen S, Gohlke-Micknis S, Zimmermann R, Kücherer C, Hamouda O (2009): Piloting second generation HIV surveillance in Berlin, Germany, 2005-2007: Risk profile for recently acquired HIV infections in MSM

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Results

- A total of 256 men having sex with men (MSM) newly diagnosed with HIV and 208 HIV negative MSM were recruited.
- The proportion of recent infections among HIV positive MSM was 41% overall (n=106/256), with the highest proportion (49%) among the youngest age group (18-29 years), followed by 43% in MSM aged 30-44 and the lowest proportion (28%) in MSM over 45 years of age.
- Cases and controls did not differ in terms of knowledge on transmission risks, HIV testing frequency, partnership status, or for the frequency of any unprotected sex practice with partners known to be HIV positive or assumed to be HIV negative.
- In regards to sexual behaviour, insertive anal sex with ejaculation was considered as high risk (cases 93%; controls 89%).
- The majority of cases (84%) and controls (81%) defined unprotected anal sex without ejaculation as high or medium-high risk for HIV transmission.
- 71% of cases and 56% of controls considered oral sex with ejaculation as high-risk behaviour.
- The proportion of MSM testing for HIV at least twice within the last twelve months was similar in cases and controls (85% vs. 81%)
- Cases and controls did not differ in terms of partnership status (45% single), or for the frequency of any unprotected sex practice with partners known to be HIV positive or assumed to be HIV-negative.
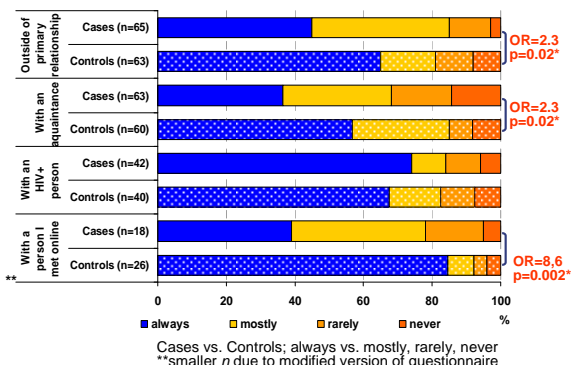
Figure 1: Duration of primary partnerships in MSM
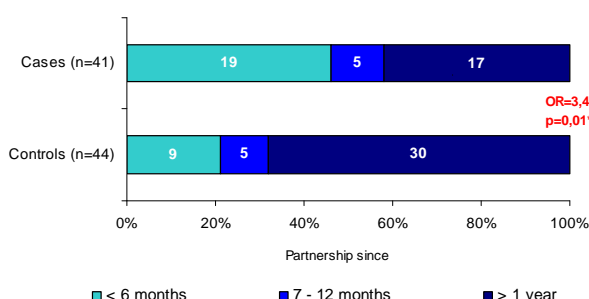
* < 6 months vs. 7-12 months and >1 year

- Primary partnerships of cases (n=41) more often had a shorter duration (<6 months) than partnerships of controls (OR=3.4; p=0.01; 95%CI [1.3;8.7]).

Figure 2: Condom use during anal intercourse with different sex partners within the last 6 months

Cases vs. Controls; always vs. mostly, rarely, never
**smaller n due to modified version of questionnaire

Cases indicated lower rates of condom use
- outside of primary relationship: OR=2.3, p=0.02, 95%CI [1.1; 4.7]
- with acquaintances: OR=2.3; p=0.02; 95%CI [1.1; 4.6]
- with persons met online: OR=8.6; p=0.002; 95%CI [2.1; 5.9]

### Table 1: Reasons for not using condoms during most recent anal intercourse

Reasons for not using condoms	Cases	Controls	OR	p-value
No condom with me.	10 (13,3%)	6 (8,1%)	1,74	0,307
Would have disturbed the mood.	10 (13,3%)	14 (18,9%)	0,66	0,356
I thought there was no risk.	25 (33,3%)	17 (23%)	1,68	0,162
I hoped that nothing would happen.	24 (32%)	18 (24%)	1,46	0,299
Condom caused erection problems.	9 (12%)	10 (13%)	0,87	0,782
Assumed that partner was negative.	24 (47,1%)	8 (22,9%)	3	0,025
I was convinced that partner was negative. **	6 (20,8%)	17 (43,6%)	0,34	0,071
Talked with sex partner about serostatus before. **	2 (8,3%)	14 (35,9%)	0,16	0,025

Reasons for not using condoms:
- Cases reported more often that they assumed sex partner to be HIV-negative (OR=3; p=0.025).
- Talking about serostatus before sex lowered risk of infection significantly (OR=0.16; p=0.03) and was thus shown to be a protective factor.
- Other potential reasons for not using condoms such as erection problems did not show significant differences in cases and controls.

** smaller n due to modified version of questionnaire

Figure 3a: Unprotected sexual practices within the last 6 months stratified for assumed serostatus of sex partner
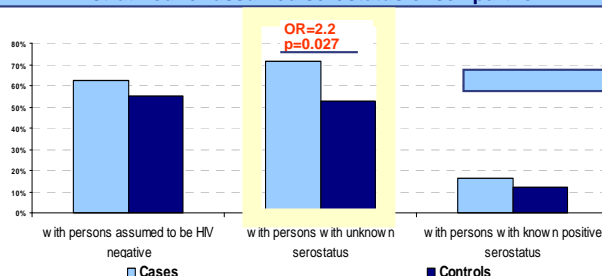
- Unprotected sex with persons of unknown HIV serostatus within the last 6 months was reported by 71% of cases (n=70) compared to 53% of controls (n=66; OR=2.2; p=0,027; 95%CI [1.1;4.5]).

Figure 3b : Unprotected anal sex with persons of unknown serostatus
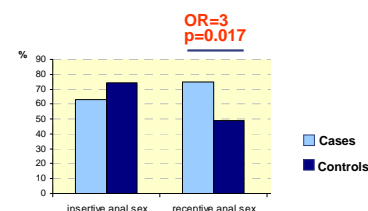
- Cases indicated higher frequencies of unprotected receptive anal sex (n=37;OR=3; p=0.017;95%CI [1.2;7.5]) with persons of unknown serostatus.

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