Perceptions of superinfection risk among gay men with diagnosed HIV who have unprotected anal intercourse

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Overview

Using data drawn from a qualitative study involving gay men with diagnosed HIV who engage in unprotected anal intercourse (UAI), this poster explores perceptions and responses to HIV superinfection.

Introduction

Men who have sex with men (MSM) with diagnosed HIV are often warned of the dangers of acquiring an additional strain of HIV (a '**superinfection**') if they have UAI with another HIV positive man.

There is, however, little scientific agreement about how likely it is that HIV superinfection[1] will occur. Some evidence suggests that it may only occur when viral load remains detectable[2]. There is also little evidence about the clinical implications of superinfection: some studies have shown that acquisition of an additional strain of HIV can lead to increase in viral load[3] or transfer of anti-retroviral resistance[4], while other case reports have shown that the new strain can replace an initial drug-resistant strain[5].

Very little is known about how men with diagnosed HIV perceive and manage the risk of superinfection. Such information will benefit those working to empower men to make informed choices about their sexual behaviour.

Data presented here are drawn from the *Relative Safety II* study, which explored risk and unprotected anal intercourse among gay men with diagnosed HIV. A copy of the report that describes findings from that study can be found at:

www.sigmaresearch.org.uk/go.php/reports/gay/report2009d

Methods

The Relative Safety II study involved 42 face to face interviews. Men were eligible to participate if they had:

- engaged in sex with men, and
- were diagnosed with HIV, and
- had engaged in unprotected anal intercourse (UAI) within the previous 12 months

Participants were recruited through community based HIV & sexual health agencies across England and Wales. Purposive sampling balanced the sample between areas of higher and lower HIV prevalence.

Age		**Time since diagnosis**	
Range	18-58	Range	<1-23 yrs
Median	37	Median	6.75 yrs
Area of residence		**Education**	
London	15	'O' Levels/GCSE or less	14
Manchester	8	'A' Levels/college diploma	16
Lower prevalence	19	Degree or higher	12
Ethic group		**Relationship status**	
White British	33	No current regular partner	24
White other	3	Sero-discordant partner	7
Mixed	2	Sero-concordant partner	11
Black African	2		
Asian British	1		
Chinese	1		

Interviews, lasting between one and two hours, sought to explore:

- Communication about HIV-status with sexual partners.
- Most recent experience of unprotected anal intercourse
- Risk reduction strategies (inc. attending to modality of intercourse, viral load, withdrawal before ejaculation).

Participants were prompted to discuss their thoughts surrounding superinfection if such dialogue did not naturally arise. All data relating to superinfection were collated and subjected to a thematic analysis Quotations in the following section are accompanied by details of the participant's age and length of time they have been diagnosed with HIV.

Results

The nature of superinfection risk

Every participant was aware of HIV superinfection, but perceptions of its likelihood and severity differed greatly. While some (particularly those recently diagnosed or those who were currently experiencing periods of ill-health) were concerned about the potential impact it could have on their future treatment options, others believed that the consequences could be no worse than initial HIV infection.

"I mean if you're already infected then you're living with it. I mean reinfection, I wouldn't imagine – obviously it can lead to more illnesses and stuff but it's no way near as bad. It changes someone's life to be honest, going from positive to negative". [Mid 20s, diagnosed < 1 year]

Some men were confused by changing advice about the likelihood of superinfection and its potential outcomes. There was also evidence of conflicting information being given to men in relation to superinfection. Some were told by HIV support agencies that superinfection was unlikely to happen, while at the same time their HIV clinicians were highlighting it as a real harm that might arise from sero-concordant UAI.

Men's own experiences of having UAI with other diagnosed HIV positive men without acquiring a superinfection, and from observing similar behaviour among their peers, had caused a great degree of scepticism about the validity of the information provided by their HIV clinicians.

"Yeah, there is also a kind of a rumour that it's an urban myth. That this cross infection doesn't really happen [...] So I think somebody once referred to it as scaremongering from the doctors." [Early 40s, diagnosed 8 years]

Around a fifth of men who said they were not concerned about HIV superinfection drew directly upon their interpretation of the 'Swiss Statement'[6] [suggesting that individuals on antiretroviral therapy with an undetectable viral load may not be infectious] when articulating their opinion that they were protected from acquiring HIV due to the low viral load of their usual UAI partner. It is uncertain whether the 'Swiss statement' caused men to change their views of superinfection, whether they used it to validate their pre-existing views.

Managing multiple concerns

Those concerned about superinfection sought to manage that risk. A few avoided UAI wherever possible and a small proportion of men utilised 'risk-reduction strategies' (such as attending to the modality of anal intercourse, or withdrawing before ejaculation), largely because they valued the feeling of intimacy arising from UAI.

A large proportion were deeply concerned at the prospect of transmitting HIV to another person and, coupled with a feeling that sex could be more intimate without condoms, felt that sex with other diagnosed men was a logical course of action.

"Sex with a positive man feels so much different. It does. Because you're more relaxed about it. And you know that there's problems with strains of virus and all that. But a lot of the stress is taken about. It makes things so much easier when you're with a positive guy." [Late 50s, diagnosed 10 years]

Several men made clear their desire to manage some risks (such as onward transmission), but that they did not want all of their sex to be dominated by perceptions and responses to risk.

Conclusions

Men's perceptions of and responses to HIV superinfection were diverse and depended on their information sources, the individual context of their sexual behaviour, and how they regarded superinfection relative to other concerns.

Clinicians and HIV support agencies may wish to find consensus in how they discuss superinfection with diagnosed positive MSM to minimise contradictory information, which can undermine the perceived trustworthiness of the source.

Advice from clinicians and HIV support agencies should honestly convey the continuing scientific uncertainty about superinfection in a manner that allows people with diagnosed HIV to make informed choices about whether to use condoms with other diagnosed positive people given their other, diverse, sexual needs.

References

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