



10th Conference

on Retroviruses and Opportunistic Infections

E-mail Abstract
Author

Session Search
Abstracts

Program

Session 8 Oral Abstract Presentations

Epidemiology

Session Day and Time: Tuesday 10 am - 12:15 pm

Presentation Time: 11:15

Room: 302-306

41

Sorting Out Serosorting with Sexual Network Methods

J. McConnell*¹, R. Grant^{1,3}

¹Gladstone Inst of Virology and Immunology, San Francisco, CA and ³Univ of California at San Francisco

Background: Serosorting may help explain stable incidence of HIV among MSM during the 1990s despite more unprotected intercourse partners reported by individuals. We hypothesize that unprotected intercourse (UI) occurs preferentially among HIV⁺ individuals, which is a sexual network characteristic that we call "serosorting."

Methods: Positive Partners is a prospective study of HIV superinfection in San Francisco. Baseline evaluation uses egocentric data collection and respondent driven sampling to characterize sexual networks. A questionnaire includes descriptions of each partner (in the last 3 months) including serostatus and types of sexual exposure. Seroconcordant primary partners were excluded from this analysis.

Results: Data from 43 HIV-1 infected participants were used for this analysis. While most had enrolled with a primary partner, 65.1% reported at least 1 additional sexual partner. The mean number of additional partners was 6.3. UI with at least 1 partner was reported by 85.7% of participants and 53.6% had at least 1 partner who was seronegative or had unknown serostatus. For an analysis of sexual networks, we characterized 176 unique partnerships involving at least 1 HIV-1 infected participant. 15.3% of the partnerships involved partners known to be HIV-negative, 36.4% involved partners known to be seropositive, and 48.3% involved partners of unknown serostatus. Receptive UI by a partner of a seropositive participant was reported in 7.4% of the serodiscordant partnerships and 90.6% of the seroconcordant partnerships, indicating substantial levels of serosorting. Among partners of unknown serostatus, 34.1% involved receptive UI.

Conclusion: Serosorting by HIV-infected individuals can be investigated using network methodology, which elucidates patterns of contact that underlie the epidemic spread of infectious diseases. High levels of serosorting may limit the impact of risky sex on the spread of the epidemic, although serodisclosure was only reported in 1/2 of partnerships. Further research is needed to identify determinants of serodisclosure and

serosorting, and to assess the impact of recent reports of HIV-1 superinfection on these epidemiologically important network characteristics.
