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BACKGROUND

Although human immunodeficiency virus (HIV) is a potential consequence of sexual assault, few jurisdictions have guidelines on HIV post-exposure prophylaxis (PEP).

OBJECTIVES

- To determine the feasibility of a standardized program of HIV counseling for all sexual assault clients and the offering of PEP to those at risk.
- To determine HIV PEP acceptance and completion rates and to establish their predictors.

METHOD

- Consecutive sexual assault clients from 24 Treatment Centres across Ontario participated in the study from Sept. 10, 2003 to Jan. 31, 2005.
- HIV PEP offered to all those at risk (high- and unknown-risk (Table 1) and eligible (<72 hrs).
- PEP regimen: 28-day course of PEP consisting of Combivir[®] and Kaletra[®].
- Baseline bloodwork was drawn and data collected including client demographics, risk status, details of assault and anxiety levels.
- Follow-up was provided at day 2-4, week 1, 2, 3 and 4; side effects were assessed at each visit.
- Univariate analyses were carried out using PEP uptake and completion rates as the endpoints and risk category (high-risk versus unknown risk) as the primary predictor.

TABLE 1: HIV Post-Exposure Assessment

Risk Category	Description	PEP Recommendation
High Risk Exposure	Anal/Vaginal/Oral penetration, or unknown penetration by a high risk assailant (known HIV-positive or known IDU, MSM, or from an Endemic country).	HIV PEP strongly recommended and counseling and education provided.
Unknown Risk	Anal/Vaginal/Oral penetration, or unknown penetration by an unknown assailant or a known assailant of unknown HIV status.	HIV PEP recommended and counseling and education provided.
No Risk	NO Anal/Vaginal/Oral penetration by assailant of ANY risk level.	HIV PEP not offered or recommended and counseling and education provided about the zero risk of HIV.

RESULTS

- Of 1,103 clients, 88 (8.0%) were high-, 934 (84.7%) unknown-, and 81 (7.3%) no-risk.
- 900 were eligible to receive PEP.
 - Ineligible: 81 no-risk, 121 came >72hrs, 1 HIV+.

TABLE 2: Baseline Characteristics

Clients (N=798 offered PEP of 900 eligible):		
Median age (range 4-80)	21	
Female	775	97.1%
High Anxiety	140	17.5%
Moderate Anxiety	367	46.0%
Low Anxiety	261	32.7%
Assailants:		
HIV-positive	3	0.4%
MSM	12	1.5%
IVDU	15	1.9%
Endemic country	39	4.9%
Vaginal penetration*	519	65.0%
Knew client <24 hours	163	20.4%
Stranger to client	163	20.4%

* Includes complete, partial and suspected penetrations.

TABLE 3: Proportions

Risk Category	HIV PEP Offered	HIV PEP Accepted	28-day Course Completed
High-risk	97.2% (69/71)	66.7% (46/69)	23.9% (11/46)
Unknown-risk	87.9% (729/829)	41.3% (301/729)	33.2% (100/301)
Overall	88.7% (798/900)	43.5% (347/798)	32.0% (111/347)

RESULTS: Lessons Learned

- Most common reason for not offering PEP to unknown risk clients was perceived low risk of transmission (41/100).
- Most common reason for not accepting PEP was lack of client concern regarding HIV (15/23 high-risk; 269/428 unknown risk).
- Side effects from the drugs was the most frequent reason reported for stopping PEP between Days 1-13 (56/69) and Days 14-27 (11/27).
- 25.9% of healthcare providers reported that they encouraged/strongly encouraged HIV PEP to the client, 70.9% reported that they neither encouraged nor discouraged HIV PEP, and 3.1% reported that they discouraged/strongly discouraged the client from taking HIV PEP.
- Although not more likely to complete PEP, high-risk clients were 2.2 times more likely to accept PEP than those at unknown risk (p=0.01).
- Factors that increased both acceptance and completion included being attacked by a stranger and client anxiety.
- Side effects were common (77.1% experienced Grade 2-4 symptoms; only 3 experienced Grade 4 symptoms).
- The most common side effects were: fatigue (58.5%), nausea (49.5%) and diarrhea (22.5%).

TABLE 4: Predictors

	Ratio (95% CI)	P-value
HIV PEP Acceptance		
High-risk	2.2 (1.21, 3.95)	0.0097
Age 18-21 years (vs. <18)	0.5 (0.31, 0.74)	
Age 30-80 years (vs. <18)	0.6 (0.38, 0.99)	0.0066
Two or more sex acts	1.8 (1.19, 2.77)	0.0055
Moderate/high anxiety	3.1 (2.15, 4.44)	
Unknown anxiety	1.7 (0.71, 3.89)	<0.0001
PEP (strongly) encouraged	3.6 (2.51, 5.25)	
PEP (strongly) discouraged	0.3 (0.11, 1.09)	<0.0001
HIV PEP Completion		
Moderate/high anxiety	2.4 (1.23, 4.51)	0.0096
Knew assailant <24hours	2.3 (1.42, 3.87)	
Unknown	1.2 (0.47, 3.19)	0.0035
No Physical Assault	2.0 (1.18, 3.47)	0.0198

RECOMMENDATIONS

- Since the universal counselling and offering of PEP to sexual assault victims/survivors in our study appears feasible and warranted, all jurisdictions should consider developing guidelines for these practices.
- Although high-risk clients accepted PEP at a greater rate than those at unknown-risk, equal numbers completed the course; therefore a universal strategy for offering PEP should be considered.
- As our completion rate was three times that reported in earlier studies, more rigorous follow-up should be considered by all programs.

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 URL: <http://www.crwh.org/programs/HIVPEP.php#results>
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