HepHIV 2014 Conference
Abstract Nr PO5/11
jdkowalska@gmail.com

When effective post-exposure prophylaxis of HIV infection fails – data from clinical practice

Justyna D. Kowalska [1,2], Ewa Pietraszkiewicz [1], Ewa Firląg-Burkacka [1] and Andrzej Horban [1,2]

1. Hospital for Infectious Diseases, HIV Out-Patient Clinic, Warsaw, Poland 2. Medical University of Warsaw, Department for Adult's Infectious Diseases, Warsaw, Poland

Background

- HIV prophylaxis with ARVs after sexual exposure (sPEP) is effective and safe approach
- The effect of sPEP care on individuals' HIV status in future remains underinvestigated

Methods

- We have evaluated medical records of persons who received sPEP in years 2009-2013
- Cox proportional hazard models were used to identify predictors of having another sexual exposure after finalizing sPEP

Results

- In total 98 persons received sPEP in relation to:
  - **37 (38%)** unprotected MSM intercourse
  - **38 (39%)** sexual assault
  - **23 (23%)** unprotected vaginal intercourse
- In 31 (32 %) cases partner was known to be HIV positive
- Twelve persons (12%) repeated the same pattern of exposure; 5 vaginal and 7 MSM anal intercourse. Eight exposures were with occasional partner (2 with HIV-positive partner), 4 in serodiscordant couples
- Median time to next exposure was 1.55 (IQR 0.78-2.43) months
- Six persons (6%) received sPEP again.
- There were no HIV infections after completing sPEP, but 3 (3%) persons had an occasional sexual contact afterwards resulting in HIV infection.
- Median time from last negative exposure till HIV infection was 1.85 (IQR 1.79-2.43) months.
- In multivariate model older age was increasing and heterosexual orientation decreasing the risk of having another exposure (Table 2)
- There was no HIV infection among serodiscordant couples

Conclusions

- In one out of ten persons sPEP had no effect on behavioral patterns, mostly in those having occasional contacts
- The risk of having another sexual exposure was higher with age and for MSM patients
- For this group of persons pre-exposure prophylaxis may be more viable method of HIV infection prophylaxis

Acknowledgment: This work has been supported by the scientific grant from the Research Development Foundation, Hospital for Infectious Diseases in Warsaw, Poland

Table 1. Baseline characteristics

Characteristic	Repeated exposure N=12	No repeated exposure N=86	P value
Gender (male), n(%)	9 (75.0)	43 (50.0)	0.10
Age in years, median (IQR)	33.9 (28.6-39.3)	28.0 (23.2-35.4)	0.27
Sexual orientation MSM, n(%)	7 (58.3)	30 (34.9)	0.12
Source HIV positive, n(%)	3 (27.3)	28 (32.6)	0.72
NDL, n(%)	3 (25.0)	35 (40.7)	0.29
Type of exposure, n(%)			
MSM anal sex	7 (58.3)	25 (29.1)	0.06
MSM oral sex	0 (0.0)	5 (5.8)	
Vaginal sex	4 (33.3)	19 (22.1)	
Sexual assault	1 (8.3)	37 (43.0)	

Figure 1. Kaplan-Meier survival curve s of time to next exposure after sPEP care (first visits) by sexual orientation

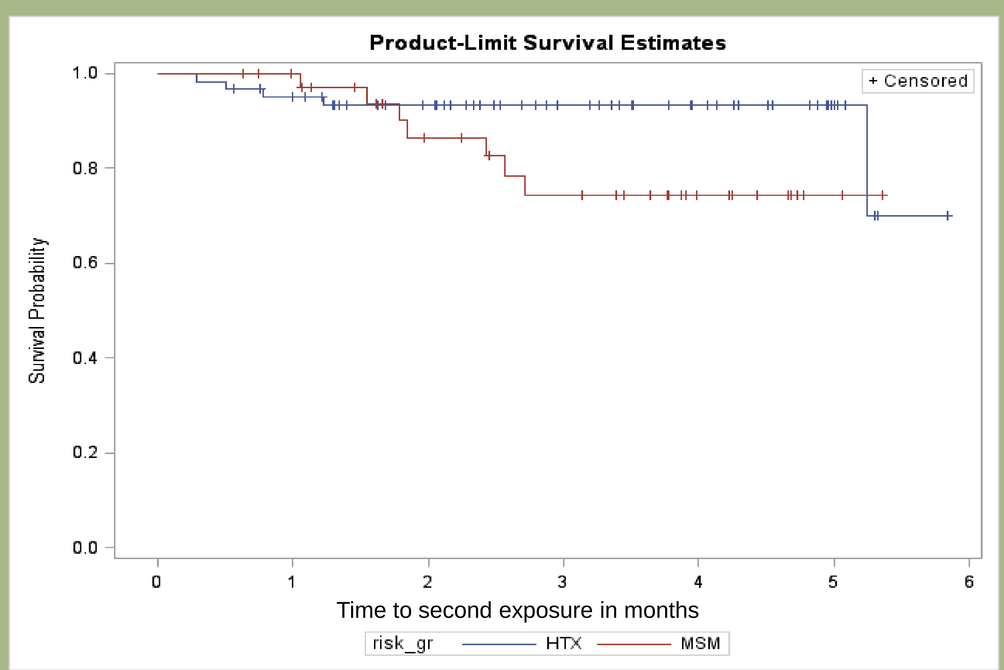

Figure 2. Cox proportional hazard models for the risk of having next sexual exposure

		Univariate			Multivariate		
		Hazard Ratio	95% CI	P value	Hazard Ratio	95% CI	P value
Gender	Female	1.00	-	-	1.00	-	-
	Male	2.18	0.59-8.14	0.244	0.74	0.11-4.88	0.755
Age	per 1 year older	1.04	0.99-1.09	0.116	1.06	1.00-1.12	0.033
	per 10 years older	1.46	0.91-2.35	0.116	**1.84**	**1.05-3.22**	**0.033**
Adverse reaction to PEP in past	No	1.00	-	-	1.00	-	-
	Yes	0.63	0.17-2.33	0.484	0.50	0.12-2.00	0.327
Sexual orientation	MSM	1.00	-	-	1.00	-	-
	Heterosexual	0.40	0.12-1.26	0.118	**0.14**	**0.02-1.06**	**0.057**
Source patient HIV status	Unknown	1.00	-	-	1.00	-	-
	HIV (+) or IDU	0.838	0.22-3.17	0.794	0.33	0.07-1.61	0.170

* Models adjusted for all above