Tolerability and adherence to post-exposure prophylaxis of HIV infection in different exposure groups

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Aim:

The study was conducted to evaluate tolerability and adherence to ARV post-exposure prophylaxis (PEP) in HIV-negative patients from different exposure groups.

Material and Methods:

Medical records of 177 patients (pts) who were consulted in out-patient clinic and received ARV as PEP in 2001 and 2002 were retrospectively analyzed. Information about occupation, exposure details, time from exposure to PEP initiation, ARV regimen, treatment tolerability and follow-up visits was obtained from medical documentation. Statistical analysis was preformed with Chi-squared and Kruskal-Wallis tests for non-parametric variables. The confidential interval of 95% was accepted.

Results:

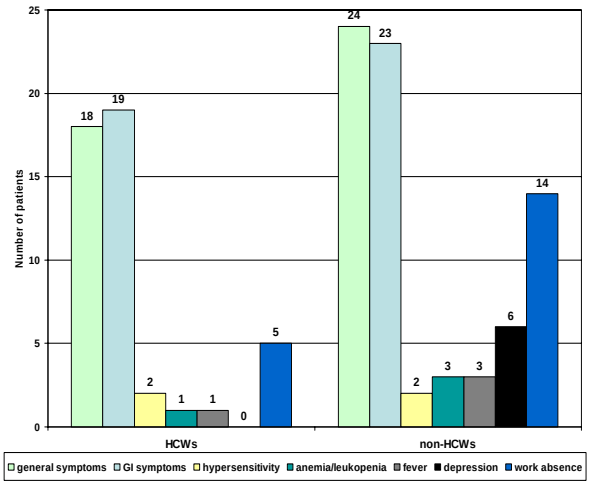
Of all 177 exposures 79 were occupational in health care workers (HCWs) of whom 39 were nurses, 15 physicians, 2 surgeons, 13 hospital cleaning staff, 7 medical students and 3 laboratory personnel. Mean age was 36,9 (range 20 to 63). Among 98 non-HCWs there were 23 policemen, 25 persons from cleaning personnel, 11 pupils and students, other 39 were of unknown occupational status. Mean age was 31,6 (range 4 to 61). There were also four cases of sexual assault which were excluded from further analysis.

Two drug regimen was administered in 156 cases. Except 2 cases of d4T+ddI in HCWs group all others were AZT+3TC (63 HCWs and 91 non-HCWs). Three drug regimen with PI as third drug was used in 14 cases HCWs (1 case d4T+ddI+IDV,12 cases AZT+3TC+IDV and 1 AZT+3TC+NFV) vs 7 cases in non-HCWs (5 cases AZT+3TC+IDV, 2 cases AZT+3TC+NFV). No post-exposure HIV infection was identified. The mean time from exposure to PEP initiation was 6 hours 48 min in HCWs (median 3h 30 min) vs 7 hours 16 min in non-HCWs group (median 3 hours), with no statistical difference.

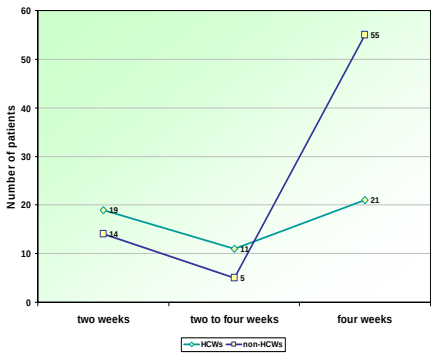
PEP was continued for four weeks in 21of HCWs (26,6%) vs 55 non-HCWs (56%) ($p<0,0001$, Fi=0,3), for two to four weeks in 11 vs 5 and less than two weeks in 19 vs 14 respectively.

Side effects (SE) were observed in 25 HCWs (31,6%) vs 37 non-HCWs (37,8%) ($p=0,467$), leading to PEP discontinuation in 11 vs 4 respectively ($p= 0,0028$, Fi= 0,38). PEP was continued despite SE in 14 HCWs vs 33 non-HCWs ($p=0,007$, Fi=0,4). Pts discontinued PEP prematurely for reasons of negative result of PIM source testing in 20 of HCWs and 4 non-HCWs. There was higher rate of work absence (14 vs 5, $p=0,089$) and depression (6 vs 0, $p=0,027$, Fi= 0,17) in non-HCWs. Detailed data about SE are shown below.

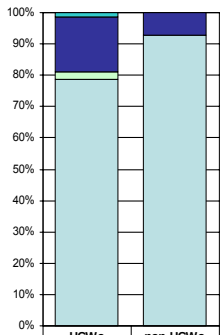
Side effects of PEP, work absence and depression



PEP continuation in different exposure groups



ARV regimens used as PEP



	HCWs	non-HCWs
ddI+d4T+IDV	1	0
AZT+3TC + IDV or NFV	14	7
ddI+d4T	2	0
AZT+3TC	63	91

Conclusions:

We have found better adherence to PEP in non-HCWs group. Although tolerability in terms of side effects frequency was slightly better in HCWs group, non-HCWs were more willing to take ARV for four weeks even in presence of adverse events. The prevalence of depression and work absence in non-HCWs shows that this group is more prone to sociological reaction which might be associated with fear of HIV infection. In practice those patients may need different approach and psychological consultations.