

PEP Study newsletter



NATIONAL CENTRE IN HIV
EPIDEMIOLOGY AND
CLINICAL RESEARCH

April 2002

Non-occupational HIV Post Exposure Prophylaxis Study: Issue 3

An overview of the study and recent changes

The study is an observational study initiated to monitor implementation of guidelines recommending non-occupational post-exposure prophylaxis (NOPEP) for HIV. Recently, with the national introduction of NOPEP guidelines, the study has been extended to ACT, Queensland and Victoria. The study is now enrolling rapidly, but the interview arm of the study was ceased during 2001.

Data collection

The study collects data at three time points.

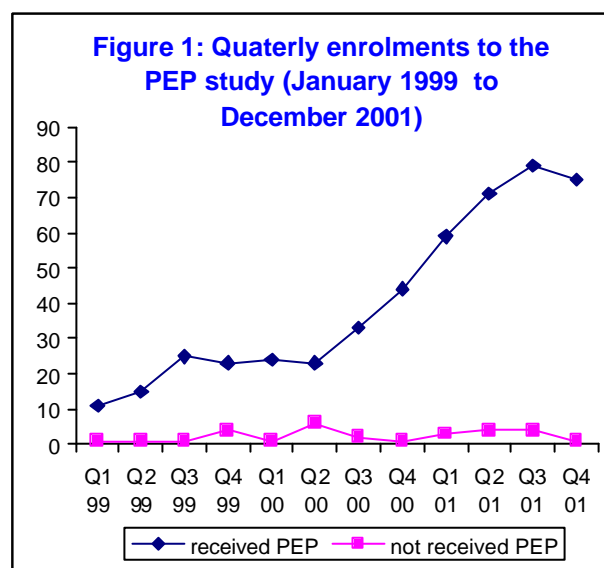
- Presentation for PEP: The patient's verbal consent to participation is sought, and data collected on HIV status, the risk event, and the source.
- At four weeks (or end of therapy) data are collected on compliance, side effects and HIV status.
- At six months (or end of follow up) data are collected on HIV status.

We encourage you to enroll individuals who fulfill the criteria to receive PEP but who, after being informed of the risks and potential benefits of treatment, elect not to take it.

Since the interview arm was finalized, the information sheets and consent form have been updated. If you require more enrolment forms, please let us know.

Enrolments

By the end of 2001, there were 515 people enrolled of whom 80 had been interviewed. Overall the three-monthly number of people enrolled in the study for non-occupational PEP continues to rise (figure 1).



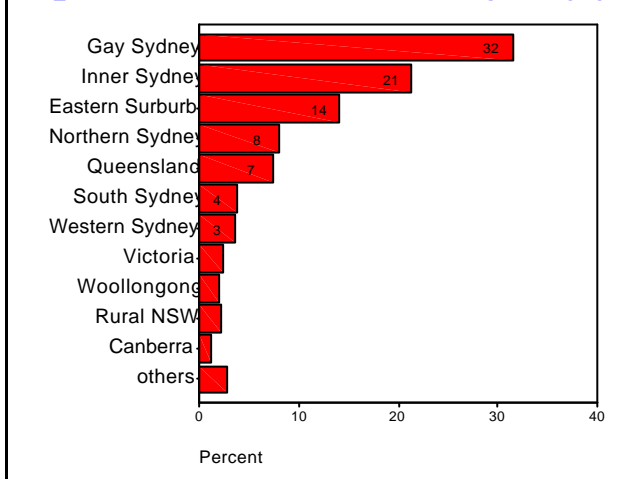
Should you have any questions regarding the study please call or e-mail:

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Alternatively you may contact Dr Andrew
Grulich at NCHECR.

Characteristics of people enrolled in the PEP study

Nearly two-third of participants reside in “Gay Sydney” (postcodes: 2000, 2010, 2011 and 2012; 32%, 163), inner Sydney (21%, 110), and the Eastern suburbs of Sydney (14%, 73). Another one-third of participants come from other parts of Sydney, rural NSW and other states (figure 2). Overall, 8.8% (45) of participants had received PEP before.

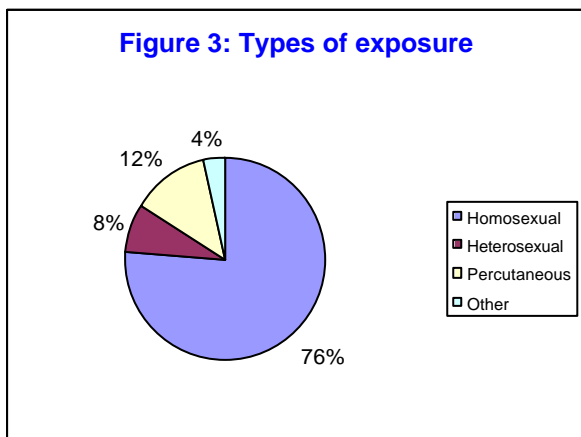
Figure 2: Area of residence of Participants (%)



Exposure

PEP was prescribed predominantly following sexual exposure. Male homosexual contact was the most common type of exposure (76.1%) (figure 3) consistent with the epidemiology of HIV in Australia. Among sexual exposures, 89% involved unprotected anal intercourse, with a small proportion (11%) being unprotected vaginal intercourse and receptive oral sex.

Figure 3: Types of exposure



Characteristics of the source

The HIV status of the source was only known in 194 (37.7%) of the exposed persons. This proportion was lower among persons who had percutaneous exposure (24%).

Timing of prescription

ANCAHRD Guidelines recommend that PEP should be commenced as soon as possible following exposure, preferably within 72 hours. So far, the median time between exposure and consultation has been 23 hours, and the median time between exposure and receiving PEP has been 26.6 hours.

PEP regimens

The majority of PEP prescriptions (69.8%) have been for three or more drugs (figure 4). The two-drug combination most commonly prescribed was lamivudine and zidovudine. Three drug combinations most commonly prescribed were lamivudine and zidovudine with either nelfinavir or nevirapine as shown in figure 5. The obvious decline in combinations containing nevirapine is attributable to the warning regarding serious adverse events associated with nevirapine regimens in Jan 2001 (*MMWR 2001; 49:1153-1156*) (figure 4).

Figure 4: The proportion of prescriptions containing 3 or more drugs and proportion of prescriptions containing nevirapine

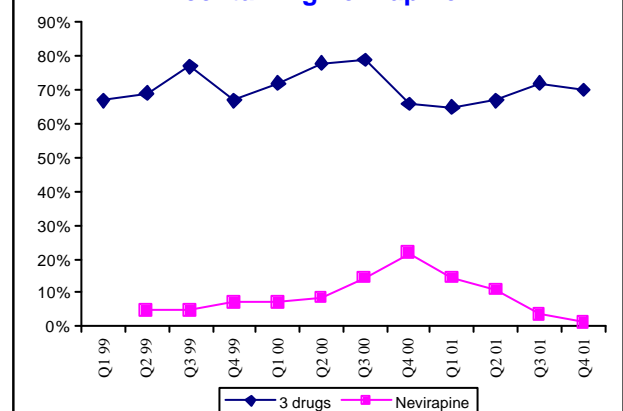


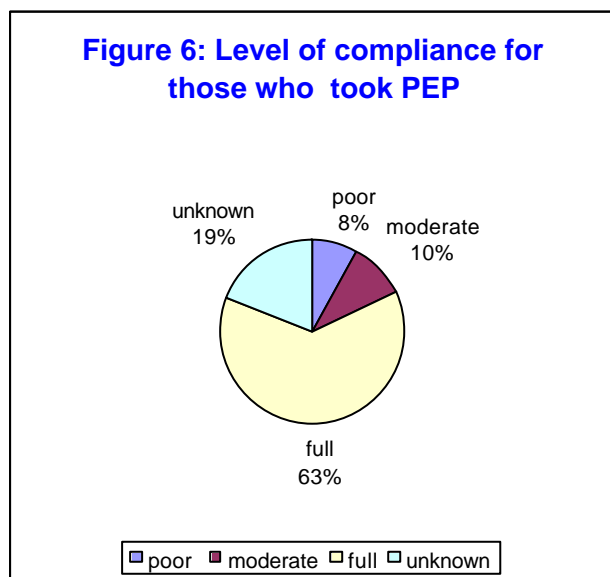
Figure 5: Drug combinations used

lamivudine and zidovudine	27%
lamivudine, zidovudine and nelfinavir	39%
lamivudine & zidovudine & navirapine	10%
lamivudine & zidovudine & indinavir	5%
lamivudine & stavudine & nevirapine	5%
lamivudine & stavudine & nelfinavir	4%
others	10%

Compliance

The overall proportion of people who took PEP and were fully compliant was 62.7%. This may improve, however, as for 19.4% of people, compliance remains unknown and follow-up data might be still on the way.

Figure 6: Level of compliance for those who took PEP



Side Effects

Most people (73%) prescribed PEP reported adverse effects. Among them, two thirds reported them as mild or moderate (figure 7) Apart from those side effects included in the data collection form (figure 8), other side effects reported were lethargy, fatigue, skin rash and insomnia. Severe side effects have been reported by 24.5% of those who presented for PEP, including common side effects such as gastrointestinal symptoms, and headache and rare side effects such as Steven-

Johnson syndrome (two cases), and kidney pain probably related to nephrolithiasis (two cases).

Figure 7: Side effect by maximum severity level

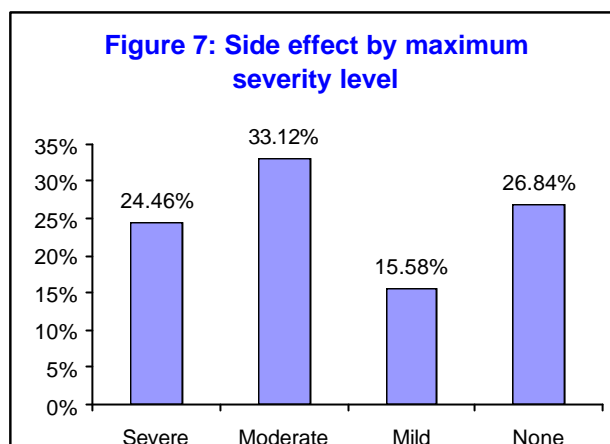
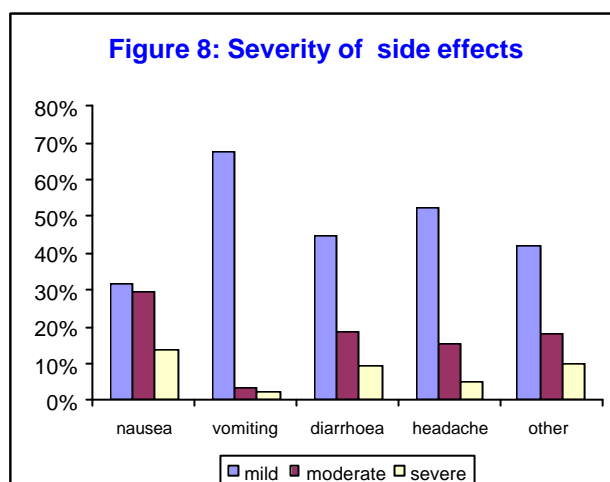


Figure 8: Severity of side effects



Severe side effects seen in overseas studies of non-occupational PEP for HIV

In France, among 1835 PEP prescriptions reported in 1999, serious side effects occurred only among patients using combination therapies including PI or NNRTI. Nephrolithiasis was the most common severe event reported (six cases). Other severe events reported were three cases of severe rashes, two of toxic hepatitis, one of cholecystitis and one of haemolysis. These severe side effects occurred within a median of 10 days of initiating therapy (range: 1-26 days). All side effects were reversible after withdrawal of the drugs.

(AIDS 2001, 16:397-405)

Severe side effects seen in overseas studies of non-occupational PEP

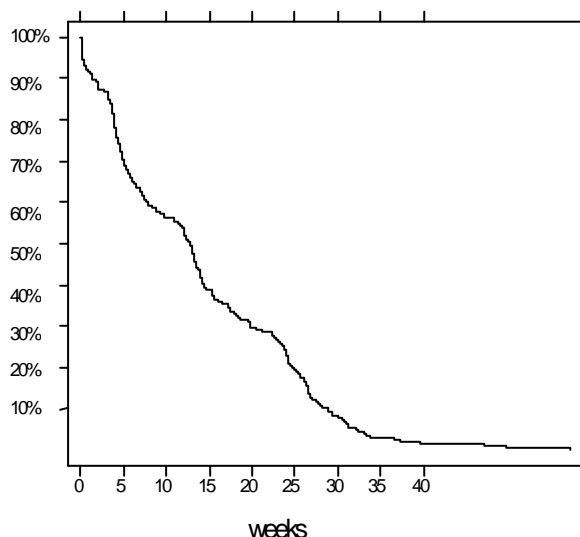
In Switzerland, 176 persons received antiretroviral prophylaxis for community exposure to HIV between Dec 1997 and March 2000. 71% of patients experienced at least one side effect. Two patients presented with severe side effects. One who received AZT/3TC/IDV developed pyonephritis as a result of ureteral obstruction, requiring hospitalisation and surgery. Another who received AZT/3TC/NFV developed toxic hepatitis.

(*SWISS MED WKLY 2001; 131:433-437*)

Follow up

72% of people have been followed up for more than 1 month (figure 9), and median follow-up is 84 days. Those who were prescribed 3 or more drugs had longer follow up (91 days).

Figure 9: Percent remaining in follow up by time since PEP prescription



HIV seroconversion

No HIV seroconversions related to treatment failure have been observed in the PEP study. Three participants were found to be HIV positive, but two tested HIV positive at baseline, emphasising the importance of baseline as well as follow up HIV testing. Another participant seroconverted three

months after being prescribed PEP, but he was poorly compliant, took PEP for only 7 days, and also engaged in ongoing risk behaviour.

The new ANCARHD Guidelines: A summary

(*The ANCAHRD Bulletin, No. 28 July 2001*)

- PEP must be commenced as soon as possible after exposure
- All PEP regimens should be prescribed for 28 days
- Only 2 drugs are recommended in most circumstances
- 3 drugs are recommended if
 - The source is known to be positive, **and**
 - There has been high risk exposure, **and**
 - The source has advanced HIV disease, or is known to have an HIV plasma viral load greater than 10,000 copies/ml b DNA (>20,000 copies/ml RT-PCR), **or**
 - Source has evidence of antiretroviral drug resistance

Important Notice: New quarterly payment system

- As you know, NCHECR reimburses doctors \$55 (inc GST) for each patient for whom the 3 follow up forms are completed.
- The current per patient reimbursement has brought about excessive processing.
- From **May 1 2002**, we would like to reimburse you on a quarterly basis.
- We will keep records of patients enrolled by you and request a tax invoice from your clinic quarterly.
- Should you have any questions regarding the change or the study, please feel free to contact us. Your suggestions and cooperation are greatly appreciated. Our contact details are on the front page.