HIV

Post-exposure HIV prophylaxis following sexual exposure: a retrospective audit against recent draft BASHH guidance

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Objectives: To retrospectively audit the management of post-exposure HIV prophylaxis following sexual exposure (PEPSE) against the British Association for Sexual Health and HIV 2004 draft guidance.
Methods: A retrospective review of case notes from January 2000 to November 2004. The draft guidelines were not adopted into clinical practice during the study period.
Results: 76 patients received PEPSE. 79% (95% CI 68.08 to 87.46) of PEPSE prescriptions were given for exposures that were in accordance with the guidelines' recommended indications (target 90%). 87% (95% CI 77.13 to 93.51) of PEPSE was prescribed within 72 hours of risk exposure (target 90%). 91% (95% CI 81.94 to 96.22) of recipients received a recommended antiretroviral combination. 53% (95% CI 40.84 to 64.21) of recipients completed the PEPSE course (target 75%). 45% of patients attended for the 3 month follow up HIV test but only 12% (95% CI 5.56 to 21.29) attended for both the 3 month and 6 month HIV test (target 75%).
Conclusion: PEPSE is predominantly being prescribed for recommended indications and is dispensed within 72 hours of risk exposure. PEPSE completion rates and attendance for 3 months and 6 months post-exposure HIV testing need improving, perhaps by introducing a PEPSE clinic.

The first draft British guidelines for post-exposure HIV prophylaxis following sexual exposure (PEPSE) were produced in 2004 by British Association for Sexual Health and HIV (BASHH).[1] They provide clear indications for when PEPSE is recommended, should be considered, and is not recommended. They recommend PEPSE is given within 72 hours following unprotected vaginal or anal intercourse with an HIV positive source or receptive anal intercourse with a source of unknown HIV status but from a group of >10% HIV prevalence. They suggest patients complete 4 weeks of therapy and re-attend for HIV testing at 3 months and 6 months post-exposure. BASHH have specified auditable targets for these recommendations (table 1). This is an audit of PEPSE management retrospectively against the draft guidance.

METHODS

Case notes were reviewed of patients given a diagnostic code for receiving PEPSE, who attended Guy's and St Thomas's Hospitals genitourinary medicine departments, between January 2000 and November 2004. Pharmacy PEPSE records provided no additional cases than diagnostic coding. Patients who refused PEPSE could not be identified for inclusion in this study. The BASHH guidelines were not adopted as clinic protocol during the study period.

RESULTS

In all, 76 patients received PEPSE. These were 87% male, 71% homo/bisexual, of median age 32 years and from the following ethnic groups: 76% white, 9% black African, 5.5% black Caribbean, and 9.5% other. The sexual exposures comprised 74% (56/76) anal intercourse (38 receptive, 18 insertive), 24% (18/76) vaginal intercourse (10 receptive, 8 insertive), and 2% (2/76) oral sex. PEPSE prescriptions increased twofold between 2003 (n = 17) and 2004 (n = 34).

A total of 79% (60/76) of PEPSE prescriptions were given for exposures in accordance with the guidelines recommended indications (below 90% target) and 17% (13/76) in accordance with the considered indications (table 1).

A total of 87% (66/76) of PEPSE courses were prescribed within 72 hours from risk exposure (median time 21 hours, range 1–96 hours). Excluding eight patients for whom the time from risk exposure to receiving PEPSE was not documented, 97% of PEPSE courses were prescribed within 72 hours (90% target met). Fifty three per cent (40/76) of patients completed therapy and 12% (9/76) attended for the 3 month and 6 month follow up HIV test (below 75% target).

In all, 91% of patients received a recommended antiretroviral combination. Antiretrovirals prescribed outside BASHH guidance are detailed in table 1. Ninety four per cent of patients had either a baseline HIV test or serum saved. Where follow up data were available no patient seroconverted. Five patients cited side effects as the reason for discontinuing PEPSE. One patient developed an alanine transferase of 379 IU/l, which resolved on PEPSE discontinuation and was not part of a HIV seroconversion illness or viral hepatitis.

Thirty four (45%) source contacts were initially of unknown HIV status. Two of these subsequently tested HIV negative, enabling two recipients to discontinue PEPSE. Among the consensual exposures, 68% (47/69) of source contacts were potentially traceable.

DISCUSSION

Most PEPSE is prescribed in accordance with BASHH recommended indications, uses approved antiretroviral agents, and is dispensed within 72 hours. PEPSE completion and follow up HIV testing rates are, however, lower than recommended. To our knowledge, this is the first study to audit the indications for PEPSE against recent draft BASHH guidance and is timely in view of the twofold increase in PEPSE prescriptions recently observed.

Our low completion rate may reflect recipients independently clarifying their source's HIV status, poor documentation of adherence, and/or a high default rate from follow up. Patient perceived low risk, inadequate recall of non-attendees, and a mobile population may have contributed to the poor follow up rate. Reasons for inappropriate prescribing include pacifying very anxious low risk individuals by prescribing a starter pack with a view to discontinuing it at next review and difficulty in declining moderate risk patient requests for PEPSE in view of a paucity of official guidance (until recently).

Abbreviations: BASHH, British Association for Sexual Health and HIV; PEP, post-exposure prophylaxis; PEPSE, post-exposure HIV prophylaxis following sexual exposure

Table 1 Auditable targets for PEPSE

	Patients			
	No	%	(95% CI)	BASHH recommendations
Indication				
Recommended	60	79	(68.08 to 87.46)	90% target
Considered*	13	17	(9.43 to 27.47)	
Not recommended†	3	4		
Source was IVDA‡	1			
Source was CSW§	1			
Fellatio after dental work with HIV+ source. No ejaculation	1			
Total	76	100		
Exposure to PEP time				
<24 hours	43	57		
>24–48 hours	15	20		
>48–72 hours	8	10		
Total <72 hours	66	87	(77.13 to 93.51)	90% target
>72 hours	2	3		
Not documented	8	10		
Total	76	100		
Completed days of therapy				
1–21 days	10	13		
25–28 days	40	53	(40.84 to 64.21)	75% target
Unknown	26	34		
Total	76	100		
Had side effects	44	58		
HIV testing				
Baseline HIV test	59	78	(66.62 to 86.40)	
Baseline serum save only¶	12	16		
3 months	34	45		
6 months	11	14		
3 and 6 months	9	12	(5.56 to 21.29)	75% target
3 or 6 months	35	47		
Attended 4 week visit	49	64		
STI screen	44	58		
Antiretroviral course				
Recommended	69	91	(81.94–96.22)	AZT/3TC + LPV/r or NFV TDF/3TC + LPV/r or NFV D4T/3TC + LPV/r or NFV
Not recommended§	7	9		
*Indinavir***	4			
Took partner's efavirenz	1			
Tailored to source with known resistance	1			
Didanosine	1			

AZT, zidovudine; 3TC, lamivudine; LPV/r, lopinavir and ritonavir; NFV, nelfinavir; TDF, tenofovir; D4T, stavudine.
*Females sexually assaulted by a source of unknown HIV status and of unknown prevalence risk were classified as a considered indication.
†The reasons for providing PEPSE which do not accord with the recommended or considered indications specified in BASHH guidance are provided in italics.
‡Male recipient—following insertive vaginal sex with an injecting drug user of unknown HIV status.
§Male recipient—following insertive vaginal sex with a commercial sex worker of unknown HIV status.
¶Serum save was an option recommended by departmental guidelines at the time.
§The antiretroviral agents prescribed against BASHH guidance are stated in italics.
**An agent recommended for occupational post-exposure prophylaxis at the time.

Richens *et al* and Fisher have recently debated the appropriateness of PEPSE, highlighting its unproved efficacy by robust trials, the potential to encourage high risk sexual behaviour, the cost and variable nature of its provision.[2 3] While this debate continues, the new guidance should help physicians counsel against low risk patient PEPSE requests, limit prescribing to cost effective exposures, and provide equitable access to PEPSE.[2 3] Using these guidelines, this audit has provided us with useful information to improve our existing practice. In response, we have introduced the following changes: modified our departmental protocol in accordance with BASHH guidance; use a comprehensive proforma to discourage inappropriate prescription, improve documentation, and encourage source contact testing; provide rapid HIV testing for the source/recipient; established a PEPSE follow up clinic that involves adherence support and recall of non-attendees. We plan to re-audit our results.

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CONTRIBUTORS

KB, AM, and SD collected the data; SD wrote the manuscript with assistance and advice from RK.

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