

Protecting and improving the nation's health

HIV post-exposure prophylaxis in MSM: Implications for wider pre-exposure prophylaxis policy

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Background

- Over half (54%; n=3,250) of new HIV diagnoses in the UK are among men who have sex with men (MSM)
- Post-exposure prophylaxis following sexual exposure (PEPSE)
 >28 day course (Truvada + Kaletra)
 >Receptive UAI with partner of unknown status or HIV positive
- Pre-exposure prophylaxis (PrEP) in high-risk, healthy individuals
 Daily oral Truvada

➢ Reduces risk of HIV infection by 86% (PROUD)

Objectives

- To investigate & assess PEPSE use to inform PrEP policy in MSM
 - 1. Describe the characteristics of patients with reported PEPSE use
 - 2. Analyse demographic risk factors associated with reported PEPSE use in MSM
 - 3. Investigate HIV seroconversion among MSM receiving PEPSE

Methods

Data source & study population

- Genitourinary Medicine Clinic Activity Dataset (GUMCADv2)
- Data from 2011-2013
- Men who had ever reported sex with another man (MSM)

Data Analysis

1. Descriptive analysis

 SHHAPT code 'PEPS' - use by various demographic characteristics (age group, ethnicity, world region of birth) using first reported episode of PEPSE

 Using the most recent episode of PEPSE, subsequent HIV diagnosis was assessed over time

2. Risk factor analysis

Demographic characteristics associated with PEPSE use investigated using multivariable logistic regression

PEPSE	No PEPSE
≥1 PEPSE episode 2011-13	No PEPSE use reported since 2011
Demographic data from first PEPSE episode	Demographic data from first attendance
No prior HIV code	No HIV code for patient episode















Results

1. Descriptive analysis: Who gets PEPSE?

Between 2011-2013:

- 14,118 patients received PEPSE
- 8,993 (64%) were MSM
 - ➤ 45% were aged 25-34 years
 - ➢ 75% were of White ethnicity
 - ➢ 58% were born in the UK
- 10,729 courses of PEPSE reported in MSM
 ≻14% of MSM reported >1 course

1. Descriptive analysis: Subsequent HIV diagnosis

- 5% (428) of MSM were subsequently diagnosed with HIV
 - Period to HIV diagnosis from beginning of most recent PEPSE course

Period to HIV diagnosis	% MSM (n)
1 week	15% (66)
>1 week to 6 weeks	17% (73)
>6 weeks to 4 months	8% (36)
> 4 months	59% (253)

2. Risk factor analysis: What characteristics are associated with PEPSE use?



aOR (adjusted Odds Ratio) after adjusting for age group, ethnic group & region of birth

3. Cohort analysis - Is PEPSE use a risk factor for HIV seroconversion?

Unadjusted and adjusted Hazard ratios for HIV diagnosis by PEPSE use

PEPSE use	Number (%)	Estimated risk of HIV diagnosis within 1 year (%)*	Unadjusted Hazard ratio (95% CI)	Adjusted Hazard ratio (95% CI)*
No	141,451 (94.1%)	0.20%	1	1
Yes	8,801 (5.9%)	1.58%	1.09 (0.96-1.25)	1.19 (1.04-1.37)

*adjusted for age, ethnic group and region of birth

Limitations

- The probability of HIV diagnosis may be underestimated as we can only follow individuals within the same service
- PEPSE use only recorded by GUM services from 2011 onwards
 - Coding not routine during early stages of 2011

Conclusions

- Repeat attendance for PEPSE is common (14%)
- PEPSE use in MSM is significantly associated with non-White ethnicity & birth outside of the UK
- MSM reporting PEPSE use are at high risk of being diagnosed with HIV (19% increased risk)
- Total estimated cost of PEPSE in MSM >£2 million per year (£677.50 per course)
- PrEP may be beneficial for MSM receiving PEPSE

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