

Adherence to Post-Exposure Prophylaxis for Non-Forcible Sexual Exposure to HIV: A Meta-Analysis

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Abstract no. 22



Conflicts of Interest

- None to declare

Post-Exposure Prophylaxis

- Initiated within 72 hours of exposure
- 2- or 3-drug regimen for 28 days
- What proportion of individuals who access PEP for non-forcible sexual exposure successfully complete the 28-day regimen?

Smith et al, Antiretroviral postexposure prophylaxis after sexual, injection-drug use, or other nonoccupational exposure to HIV in the United States. MMWR Recomm Rep. 2005.

Post-exposure prophylaxis to prevent HIV infection: joint WHO/ILO guidelines on post-exposure prophylaxis (PEP) to prevent HIV infection



Search Strategy

- 3 electronic databases searched: MEDLINE, EMBASE, and PsycINFO
- Searched permutations of: post-exposure prophylaxis, adherence, HIV, non-occupational



Eligibility Criteria

Inclusion Criteria:

- Includes primary data
- Includes data on adherence to PEP

Exclusion Criteria:

- Occupational exposure, sexual assault, or injection drug use as primary source of exposure (>25% of mixed cohort due to exposure other than non-forcible sexual exposure)

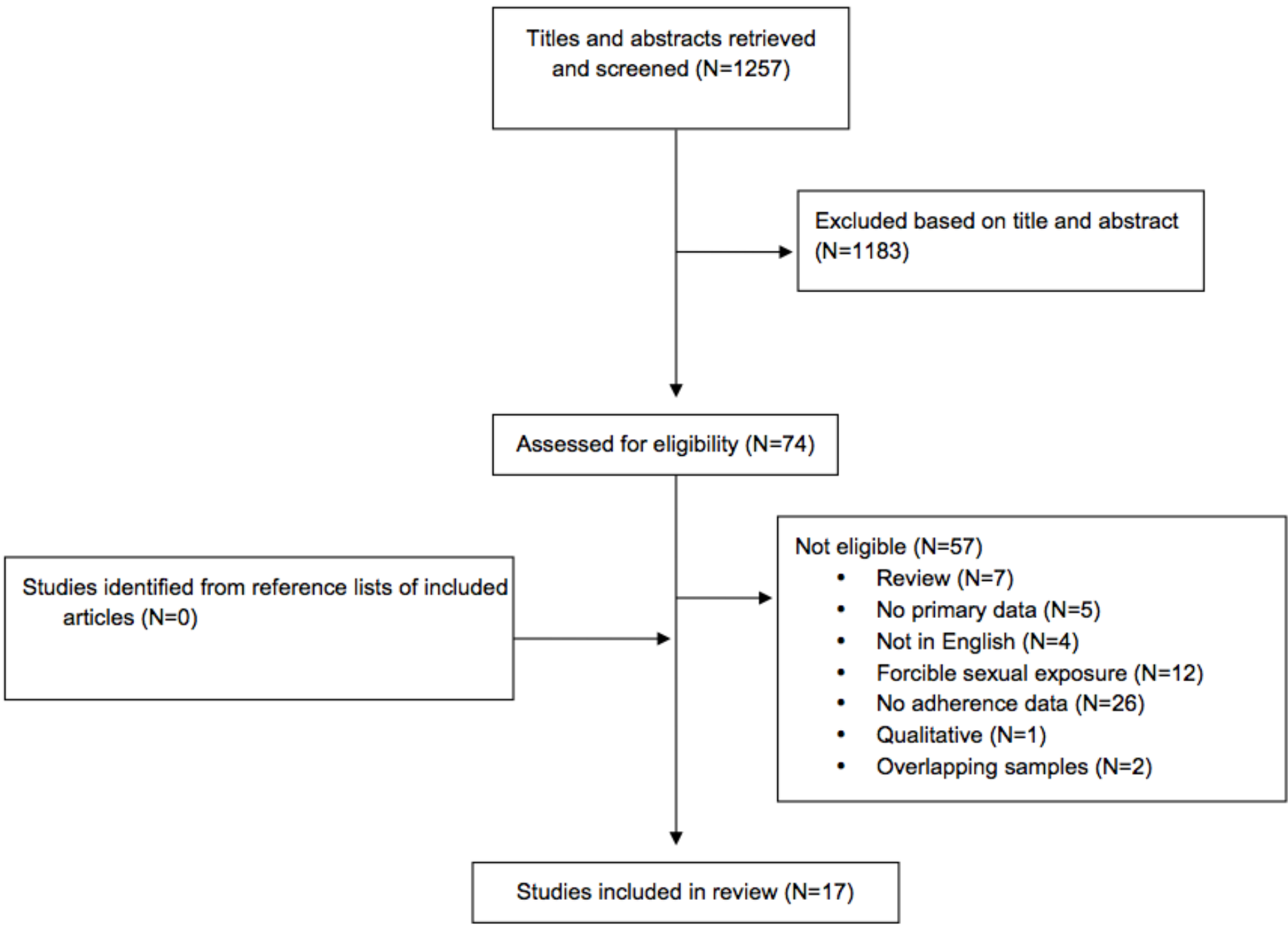


Outcomes

Primary outcome: proportion adherent to 28-day PEP regimen

Secondary outcomes: refusals, loss to follow-up





Titles and abstracts retrieved and screened (N=1257)

Excluded based on title and abstract (N=1183)

Assessed for eligibility (N=74)

Studies identified from reference lists of included articles (N=0)

Not eligible (N=57)

- Review (N=7)
- No primary data (N=5)
- Not in English (N=4)
- Forcible sexual exposure (N=12)
- No adherence data (N=26)
- Qualitative (N=1)
- Overlapping samples (N=2)

Studies included in review (N=17)

Study Characteristics (1)

- Region of origin:
 - Europe: N=8
 - United States: N=6
 - Australia, Brazil, Kenya: N=1 each
- Exposure:
 - MSM: N=7
 - Mixed: N=9



Study Characteristics (2)

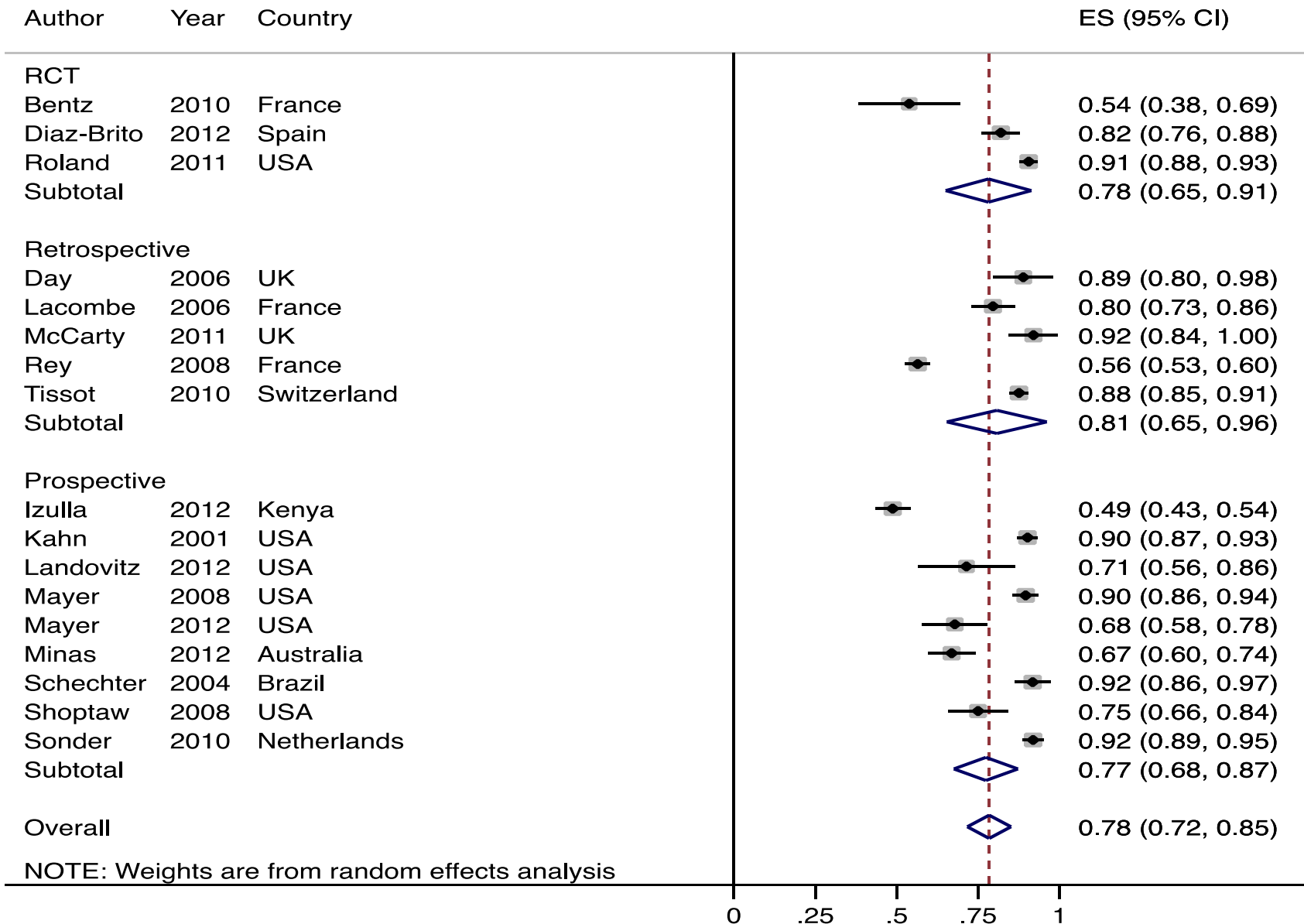
- Adherence measure
 - Self-report: N=5
 - Pill count: N=2
 - Self report and pill count: N=3
 - Retention in treatment: N=1
- Treatment regimen
 - Zidovudine-based: N=10
 - Zidovudine/lamivudine: N=6
 - + neflinavir, atazanavir, or ritonavir: N=4
 - Tenofovir-based: N=5
 - Tenofovir/emtricitabine: N=3
 - +raltegravir: N=1
 - Tenofovir + lamivudine: N=1



Adherence

- Overall pooled adherence: 78% (95% CI 72 to 85%)
 - Ranging from 49 to 92% in individual studies
- Randomized-controlled trials: 78% (65 to 91%)
- Prospective observational studies: 77% (68 to 87%)
- Retrospective studies: 81% (65 to 96%)





NOTE: Weights are from random effects analysis

Meta-Regressions

No significant difference in adherence by:

- RCT (vs. observational)
- Risk reduction intervention (vs. no risk reduction intervention)
- 3-drug regimen (vs. 2-drug)
- MSM (vs mixed cohort)
- Pill count (vs. self-report)



Conclusions

- Adherence to PEP after non-forcible sexual exposure to HIV is moderately high
- Studies were highly heterogeneous
- No studies used biomarkers to validate self-report or pill count measures
- More accurate measures of PEP adherence will improve estimates



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