Title:
Should Pre-Exposure Prophylaxis (PrEP) Services be Blamed for the Increased Rate of Sexual Transmitted Infections?
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PrEP Protocol for Urgent Care, STI, and Telemedicine and Peer Support in Mental Health

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Abstract Summary:
Pre-exposure prophylaxis (PrEP) is a lifesaving HIV prevention medication. Critics have shared their concerns for oral PrEP as it may be promoting unprotected sex among PrEP users, and indirectly may cause a new surge of sexual transmitted infections (STIs). This study suggests that information is inconclusive at this time.
PrEP is a once-a-day pill regimen and was approved by the US Food and Drug Administration as a biomedical in HIV prevention in 2012.

Rising cases of STIs among PrEP users has been reported by multiple clinics.

The purpose of the study is to evaluate the current clinical literatures that report on the incidence of STI rates among PrEP users.

Pubmed, CINAHL, and Embase databases were searched for peer-reviewed studies concerning the incidence of STI rates among the PrEP population from January 2014 to November 2018 according to the preferred reporting items for systemic reviews and meta-analyses (PRISMA) statement.

Of the 223 manuscripts reviewed, 30 met the inclusion criteria and were synthesized.

Three common limitations were noted in these reports.
1. STI cases are based on cross sectional data,
2. limited participants in the analysis for STIs among PrEP users,
3. there is a lack of longitudinal data to support that PrEP promotes risky behaviors such as unprotected sex among current PrEP users.

A majority of the PrEP clinics are still in the beginning stages of providing PrEP services.

Spiking STI cases among PrEP users should serve as a warning to providers that further preventative education may be needed for all patients.

The findings from this study provide further evidence of the complexity of the relationships between oral PrEP associated with the high-rise in STIs.

Further longitudinal research is required to explore and identify risky behavior among PrEP users within the context of STIs.

The National HIV Surveillance System and pharmacy data show that pre-exposure prophylaxis (PrEP) use can be associated with serious declines in new HIV diagnoses (Sullivan, 2018). PrEP is a once-a-day pill regimen and was approved by the US Food and Drug Administration as a biomedical in HIV prevention in 2012 (Holmes, 2012; US Food and Drug Administration, 2012). Guidelines for initiating PrEP in primary care settings are widely available from multiple government agency websites, with an emphasis for the PrEP provider to conduct multiple points of sexual transmitted infection (STI) screenings for PrEP candidates (Centers for Disease Control and Prevention, 2014, 2016, 2017; World Health Organization, 2015). Rising cases of STIs among PrEP
users has been reported by multiple clinics. The purpose of the study is to evaluate the current clinical literatures that report on the incidence of STI rates among PrEP users. **Methods:** Pubmed, CINAHL, and Embase databases were searched for peer-reviewed studies concerning the incidence of STI rates among the PrEP population from January 2014 to November 2018 according to the preferred reporting items for systemic reviews and meta-analyses (PRISMA) statement. Of the 223 manuscripts reviewed, 30 met the inclusion criteria and were synthesized. **Results:** Three common limitations were noted in these reports. 1) STI cases are based on cross sectional data, 2) limited participants in the analysis for STIs among PrEP users, and 3) there is a lack of longitudinal data to support that PrEP promotes risky behaviors such as unprotected sex among current PrEP users. PrEP services were first approved by the US Food and Drug Administration as a medication option in 2012 to reduce HIV infection rates. The acceptance of PrEP services did not receive much consumer attention until late 2014. Since that time, PrEP guidelines for primary care providers have been disseminated widely and the initiation of PrEP services has surged as evidenced by the lower rates of new HIV cases. A majority of the PrEP clinics are still in the beginning stages of providing PrEP services. Spiking STI cases among PrEP users should serve as a warning to providers that further preventative education may be needed for all patients. This study also emphasize the importance of following screening and treatment guidelines in PrEP. PrEP providers should continue to monitor the trending of the STI cases and disseminate this information to other clinic providers. And, ultimately, all PrEP users should continue to practice safe sex practices. **Conclusion:** The incidence of STIs among PrEP users has increased tremendously, but current reportable data that suggests PrEP is the sole instigator for the rise of STIs is still inconclusive. PrEP is a lifesaving HIV prevention medication and providers should continue to offer the service to patients who could benefit from the treatment. This must be paralleled with safe sex education as part of the protocol. The findings from this study provide further evidence of the complexity of the relationships between oral PrEP associated with the high-rise in STIs. Providers must be aware that multiple factors may influence a patient’s decision to practice unprotected sex. Further longitudinal research is required to explore and identify risky behavior among PrEP users within the context of STIs.