



La PrEP en Bretagne (2021)

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Efficacité de la PrEP en France

Real-world effectiveness of pre-exposure prophylaxis in men at high risk of HIV infection in France: a nested case-control study

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Summary
Background Pre-exposure prophylaxis (PrEP) has shown high efficacy in clinical trials, but few observational studies have confirmed its effectiveness when prescribed in real life to users with diverse profiles. This study aimed to assess real-world PrEP effectiveness.

Methods We did a matched, nested case-control study among adult men at high risk of HIV infection between Jan 1, 2016, and June 30, 2020, using data from the French national health data system. Men who were newly diagnosed with HIV infection up to Dec 31, 2020, were individually matched with up to five controls for age, socioeconomic status, place of residence, calendar year, and follow-up duration. PrEP use was characterised on the basis of tenofovir disoproxil fumarate plus emtricitabine dispensing over time. Conditional logistic regression was used to calculate the adjusted odds ratio (ORs) of PrEP use associated with HIV infection. PrEP effectiveness (computed as I-adjusted OR), was estimated overall, by mode of PrEP use, and by individuals' sociodemographic characteristics.

Findings Among a total of 46706 individuals, 256 patients with HIV infection were identified and matched with 1213 controls. PrEP users accounted for 29% of cases and 49% of controls. PrEP effectiveness was 60% (95% CI 46 to 74) in those who were PrEP compliant and 86% (78 to 93) if excluding periods after PrEP discontinuation. PrEP effectiveness was significantly reduced in people younger than 30 years (26% [-21 to 54]) and in those who were socioeconomically deprived (64% [-392 to 45]), both of which groups showed low amounts of PrEP consumption and high rates of PrEP discontinuation.

Interpretation PrEP effectiveness appears to be lower in real-world conditions than is reported in clinical trials. Strengthening efforts to improve the monitoring of PrEP compliance will be essential to ensure PrEP effectiveness, especially among young and socioeconomically deprived recipients.

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Introduction
Pre-exposure prophylaxis (PrEP) with tenofovir disoproxil fumarate plus emtricitabine has proved to be a highly effective means of preventing the rate of new clinical trials (RCTs) have reported reduced rates of new HIV infections ("up to 93% among patients with a detectable drug concentration") in PrEP; 86% in PROUD,¹ and 86% in iPERGAY.¹³ On the basis of these figures, PrEP use has been increasingly encouraged for populations at high risk in many countries worldwide.

Although RCTs are important to test the efficacy of a drug, the depth of efficacy that they report can differ from that obtained once the drug is widely prescribed in real life to users with diverse profiles, in accordance with various schemes of care and monitoring, and for certain subgroups of users. To date, only two ecological studies have assessed PrEP effectiveness in a real-world setting: most of those that have been ecological studies that reported population-level HIV incidence in settings

in which PrEP was implemented, but without any comparison group, which hindered the evaluation of effectiveness.^{14,15} The only comparative studies available were done in specific populations or health-care settings (eg, men who have sex with men [MSM] clinics¹⁶), and did not provide measures of PrEP effectiveness, and did not account for the diversity that exists in the real world, both among individuals' profiles and in the care management of PrEP users.

In France, since 2016, oral PrEP with tenofovir disoproxil fumarate plus emtricitabine has been authorised and reimbursed specifically for use in adults at high risk of HIV infection. As of June 30, 2020, a total of 32 042 people had initiated PrEP, who were mostly men who have sex with men (MSM) and who lived in urban areas. These individuals were mostly taking PrEP daily or on-demand PrEP. Among more than 3000 MSM at high-risk in the ANRS-Prevenir study¹⁷ done in the Paris area, approximately half opted for an on-demand

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- **Efficacité de la PrEP en vie réelle en France**
 - Etude cas-témoin
 - 42.159 hommes à haut risque, 2016 – 2020
 - 256 infections incidentes
 - Efficacité de la PrEP
 - 93% si conso ¾ à 1 boite/mois
 - 86 % dans les périodes sans interruptions
 - Facteurs de moindre efficacité
 - Age < 30 ans
 - CMUc
 - Faible consommation
 - Interruptions fréquentes

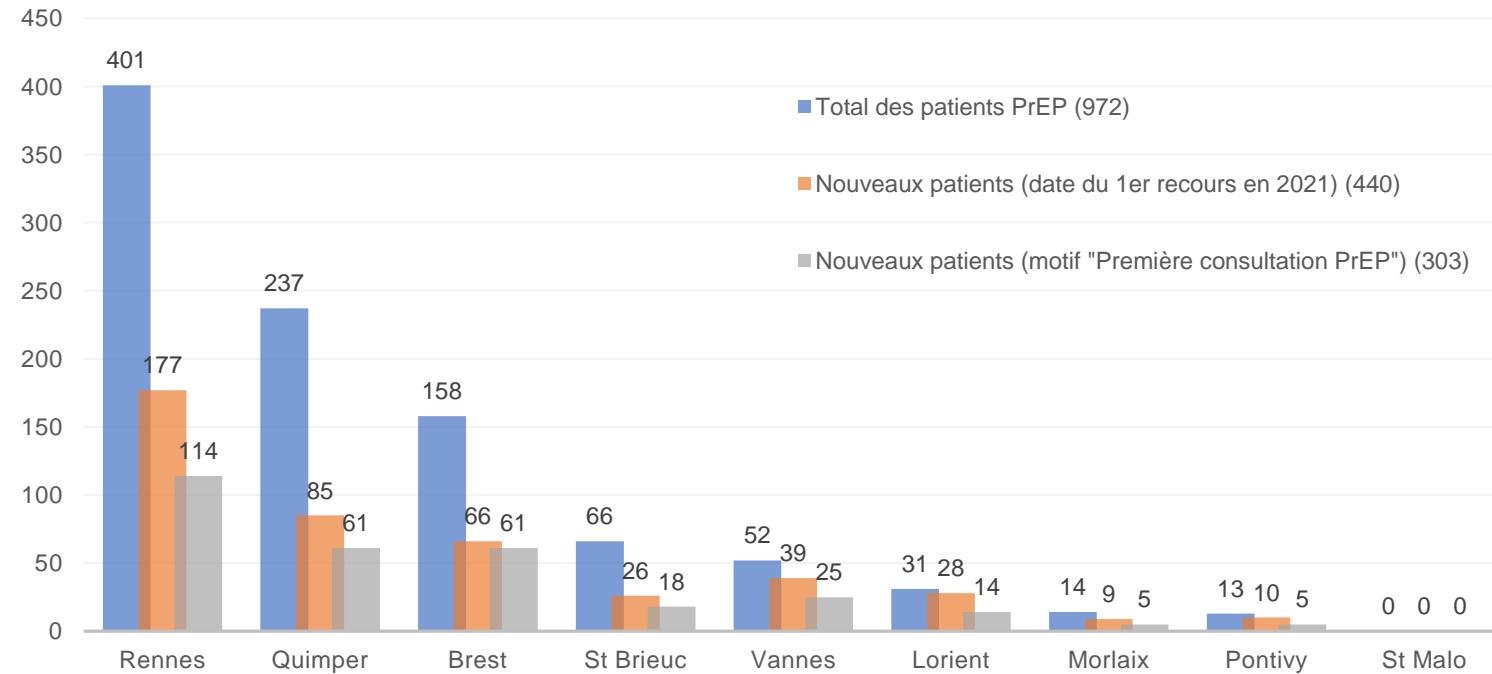
DONNÉES EN BRETAGNE

Recueil de données

- Données extraites de Nadis
- Motif recours :
 - Prescription d'une PrEP
 - Suivi d'une PrEP
 - Première consultation PrEP
- Limites :
 - Ne prend pas en compte Siloxane
 - Tous les recours ne sont pas informés dans Nadis
 - Tous les médecins n'utilisent pas Nadis pour la PrEP
 - Les biologies extérieures
 - Suivis de la PrEP en ville

Général

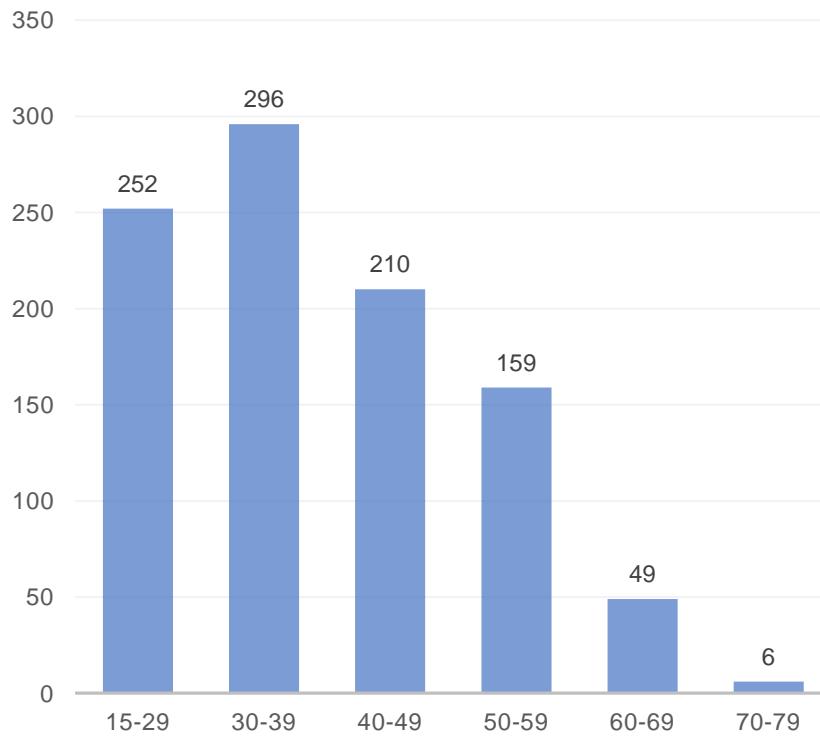
PrEP en Bretagne (2021)



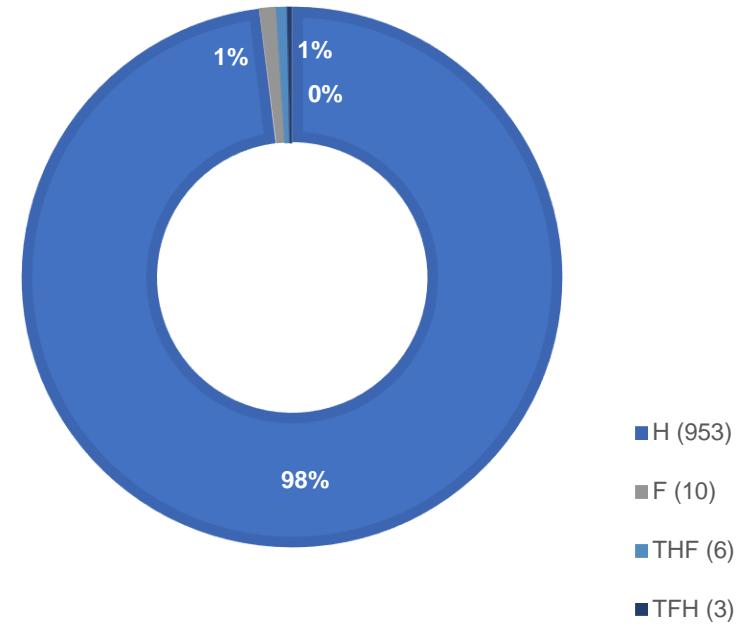
Moyenne de 58% de patients PrEP ont eu leur 1^{ère} consultation en 2021.

Profil des patients

Age des patients PrEP en Bretagne
(2021)

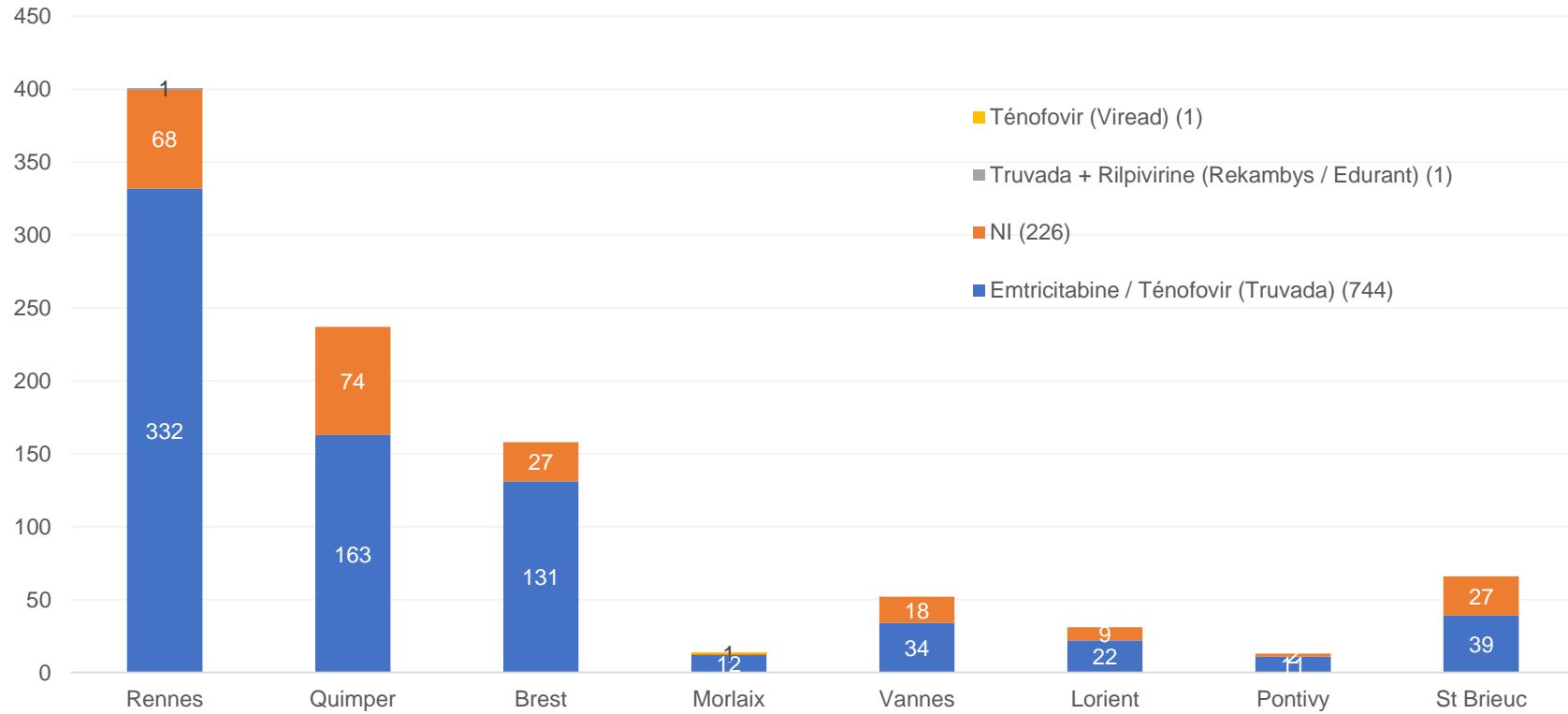


Répartition des sexes



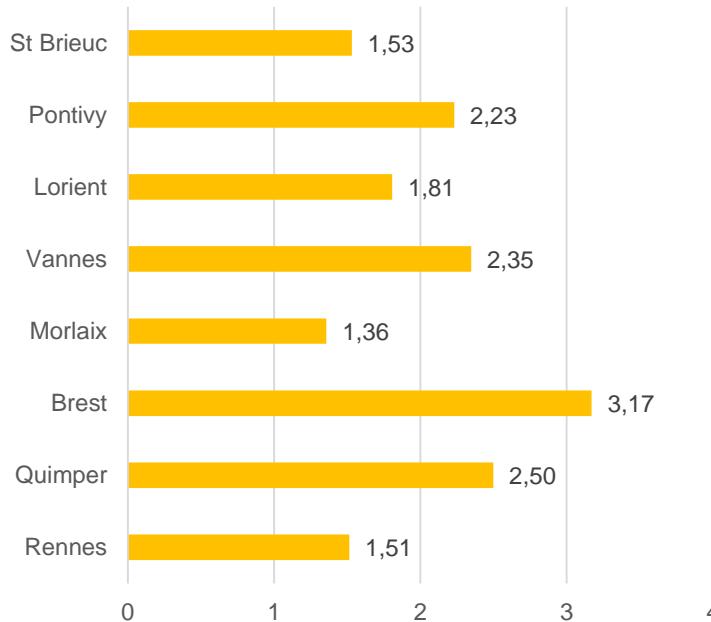
Traitements

Derniers traitements PrEP dans les différents centres bretons

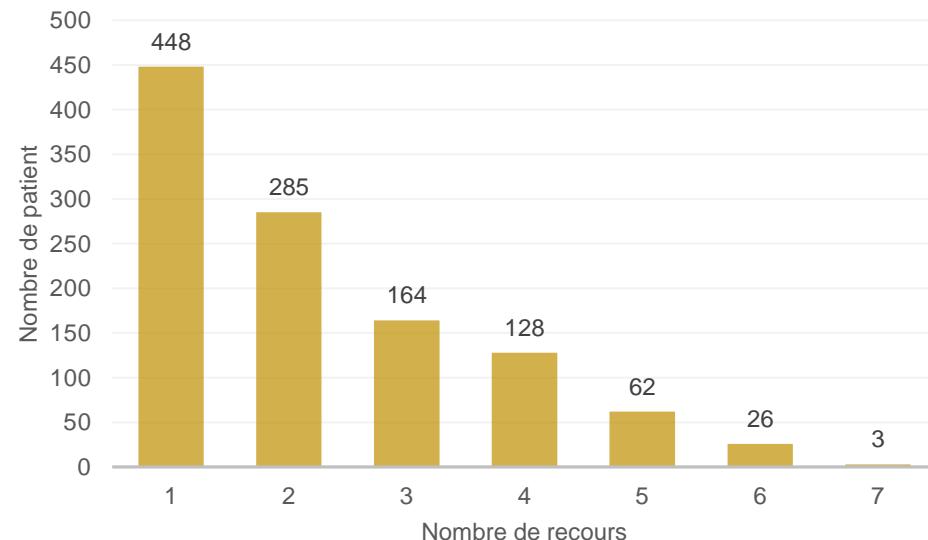


Consultations (1/2)

Nombre de recours PrEP moyen en 2021



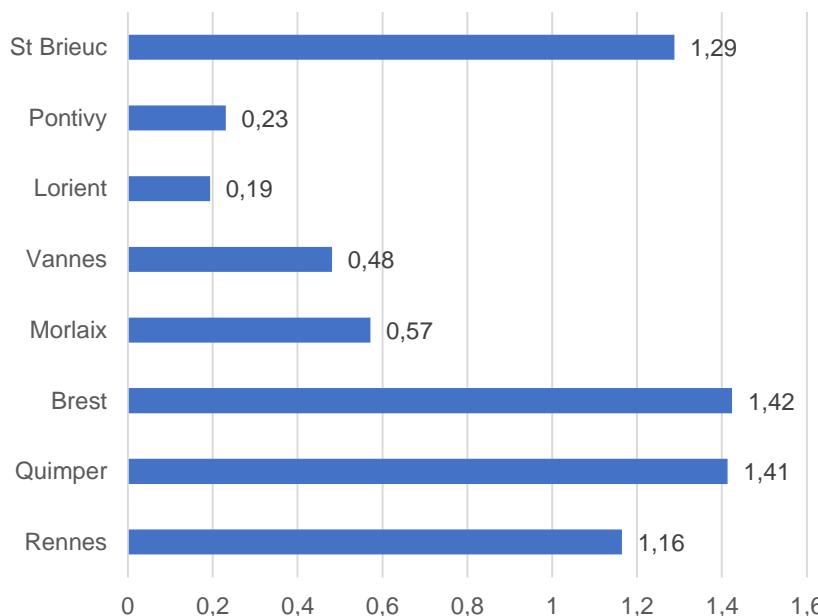
Nombre de recours PrEP en 2021 par patient



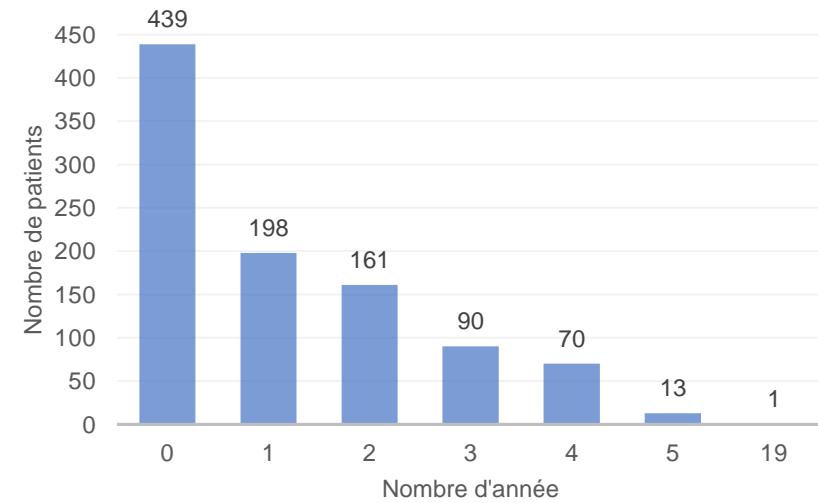
40% des patients PrEP ont eu une seule consultation en 2021 en Bretagne.

Consultations (2/2)

Nombre d'année de suivi depuis la première consultation



Nombre d'année de suivi depuis la première consultation par patient



Merci de votre attention