Costs Attributable to People Living With HIV in France

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Conclusions

This study provides recent attributable costs to HIV based on a robust and representative case-control study. HIV management in France generates significant costs, with greater costs observed during the first year post-diagnosis and among those with AIDS. Despite recurring decreases in antiretroviral therapy (ART) costs, care for people with HIV (PWH) remains a substantial long-term economic burden for the National Health System

Introduction

This study aims to update and to refine the estimation of the average annual healthcare cost per patient (PP) for PWH in France (2019-2023), reflecting the evolving treatments and the introduction of generics. To isolate HIV-attributable costs, we employed a case-control matching method

Methods

Database

 The study is based on the 2% sample (ESND) of the French National Healthcare Data System (SNDS) claims database

Study Design (Figure 1)

 PWH were identified through long-term coverage (LTD) for HIV, or ARTs during at least one year, excluding those receiving only pre-exposure prophylaxis The AIDS stage was defined by the presence of the ICD-10 code "B24.1" as a primary, related, or associated diagnosis during hospital admission at baseline

Cohorts

- Prevalent cohort: PWH identified between 2014 and 2022. This cohort was designed to assess the long-term economic burden of HIV (2019-2023)
- Incident cohort: PWH initiating LTD or ART between 2019 and 2022. This cohort was designed to evaluate the economic burden during the first year following HIV seropositivity discovery

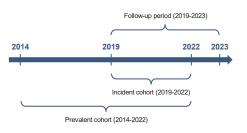
Outcomes

Costs included treatments, hospitalizations, outpatient/inpatient care, examinations, and daily/invalidity allowances (2019-2023). Annual costs PP were calculated from a societal perspective, with subgroup analyses for individuals with AIDS and by LTD duration

Matching

 PWH were matched to controls on 1:3 ratio and based on age, sex, and comorbidities to assess HIV-attributable costs

Figure 1. Design of the Study

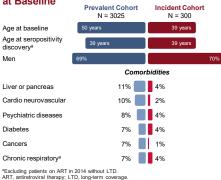


Results

Description of the Populations (Figure 2)

- The Prevalent cohort included 3 025 PWH with LTD (N = 2 459) or with ART initiation after 2014 (N = 563) or on ART in 2014 (N = 3). Of these, 10% (n = 300) were incident, 2019-2022 with no prior HIV history (2014-2018), forming the Incident cohort
- Both the Prevalent and Incident cohorts had similar proportions of men (69%) and mean age at the time of HIV seropositivity discovery (39 years). AIDS stage was observed for 25% of prevalent PWH (at baseline in 2019), while 15% of incident PWH were identified as being at AIDS stage during the period 2019-2023

Figure 2. Demographics and Comorbidities at Baseline



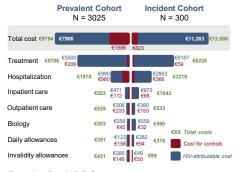
Results for the Prevalent Cohort (Figure 3)

• In the Prevalent cohort, the average annual cost per patient was €9 794, of which €7 906 directly attributable to HIV compared to the control cohort, the remaining €1 888 being non-directly HIV-attributable healthcare costs. Treatment represented the main part of the total costs (58%), dedicated for 96% (€5 500) to HIV treatment. Hospitalization is the second main cost category (20% of the total cost), of which half was attributable to HIV (€980)

Results for the Incident Cohort (Figure 3)

In the Incident cohort (first year post-diagnosis), the average annual cost PP was significantly higher (€12 086, +23%) compared to the Prevalent cohort (€9 794), of which €11 263 was attributable to HIV. Similarly to the Prevalent cohort, treatment and hospitalization remained the two dominant cost categories. Notably, HIV-attributable costs were higher in the Incident cohort across all cost categories except invalidity allowances, reflecting the intensive resource utilization during the initial year post-diagnosis

Figure 3. Annual HIV-Attributable Costs for Prevalent and Incident HIV Cohorts (Euros,€)



Results for AIDS Stage

- At the AIDS stage, costs increased significantly:
 €15 841 in the Prevalent cohort (n = 752) and
 €23 670 in the Incident cohort (n = 45).

 Hospitalization became the dominant cost category at the AIDS stage, representing 42% and 54% of the total annual cost in the Prevalent and Incident cohorts, respectively
- In the Prevalent cohort, analysis by LDT duration demonstrated that, excluding the first year postdiagnosis (Incident cohort with LTD results), average annual cost remained stable for up to 20 years of disease duration. Beyond 20 years, costs started to rise above €13 000, likely reflecting the aging effects

References: 1. Léotoing L, et al. AIDS. 2018; 32(14):2059-66. 2. Prodel M, et al. J Public Health Res. 2021; 11(2):2601

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