

Sleep disorders in People Living with HIV in integrase-inhibitors based regimen

R. A. Passerotto¹, D. Farinacci², F. Lamanna¹, R. J. Steiner¹, A. D'Angelillo¹, E. Visconti², S. Di Giambenedetto^{1,2}

Affiliation: 1. Università Cattolica del Sacro Cuore, Roma, Italy. 2. UOC Malattie Infettive e Tropicali, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy

Introduction

- Sleep disorders are a significant issue in general population and particularly among people living with HIV (PLWH).
- Long-term sleep disturbances can lead to a reduction in quality of life and even the development of depressive disorders.
- In PLWH, antiretroviral therapy (ART) can also contribute to sleep disorders, especially in patients taking some non-nucleoside reverse transcriptase inhibitors (NNRTIs) and some integrase inhibitors (INSTIs).

Methods

- In this study, we aimed to assess the incidence of sleep-related disorders in patients taking INSTIs, specifically dolutegravir (DTG) and bictegravir (BIC), using a **questionnaire** that included inquiries about:
 - ✓ socio-demographic characteristics
 - ✓ sleep quality

Results

Patients' characteristics

- We analyzed data from **74 patients** followed at a single center.
- The majority of patients were **male** (n=59, **79.7%**) with a median age of **53 years** [43-57].
- Fifty-seven patients were **employed (77%)**, 3 were students (4.1%), 4 were unemployed (5.4%), and 13 were retired (17.6%).

Results

- Of the total, **28.4%** of patients reported **difficulty falling asleep**, and **14.9%** required pharmacological therapy to aid sleep.
- Forty-four individuals (**59.5%**) reported **waking up 1-2 times per night during sleep**, 8 (10.8%) woke up 3-4 times per night, and 1 (1.4%) woke up more than four times per night.
- Twenty-two patients (**29.7%**) reported **restless and unrefreshing sleep**
- Twenty-one patients (**28.4%**) reported experiencing **vivid dreams**.
- Fifty-four patients (**73%**) indicated that **poor sleep quality** affected their daily activities, and 37 (**50%**) felt the **need to rest during the day**.
- Twenty-three patients (**31.1%**) expressed **dissatisfaction** with their **sleep quality**.
- Patients with **employment** had a **higher incidence of nighttime awakenings** compared to non-working individuals (p=0.049).

Safety

- Analyzing responses from patients on **DTG-containing** therapy versus **BIC-containing** therapy revealed **no significant differences** between the two groups.
- **No differences** emerged in responses between patients on **two-drug DTG** therapy versus **three-drug** therapy.

Conclusion

- In general, **sleep disorders** are prevalent in our cohort of PLWH, with limited correlation to social factors, particularly **related to employment**.
- **Different ART regimens based on INSTIs do not seem** to cause significant **differences in sleep** quality.

References

1. Vélez-Díaz-Pallarés M, Esteban-Cardelle B, Gramage-Caro T et al. Sleep disorders related to HIV treatment. Rev Esp Salud Publica. 2023 Jun 19;97:e202306052.
2. Bruno G, Giotta M, Perelli S, Spada V et al. Prevalence and Risk Factors for Poor Sleep Quality in People Living with HIV: Preliminary Observations from an HIV Outpatient Clinic. Viruses. 2023 Aug 10;15(8):1715. doi: 10.3390/v15081715
3. Yusuke Yoshino, Yoshitaka Wakabayashi, Takatoshi Kitazawa. Changes in health and sleep quality after anti-retroviral treatment modification in Japanese people living with HIV. J Infect Chemother. 2023 Oct;29(10):948-952. doi: 10.1016/j.jiac.2023.06.009. Epub 2023 Jun 14.