



# Reduced bone mineral density in human immunodeficiency virus-infected individuals: a meta-analysis of its prevalence and risk factors: supplementary presentation

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## Abstract

A meta-analysis was conducted to evaluate the prevalence of osteopenia/osteoporosis in human immunodeficiency virus (HIV)-infected individuals. The prevalence of osteopenia/osteoporosis in HIV-infected and antiretroviral therapy (ART)-treated individuals was significantly higher than respective controls. Evidence regarding bone loss within first year of HIV infection or ART initiation was preliminary.

**Keywords** Antiretroviral therapy · Bone density · HIV · Osteopenia · Osteoporosis

## Key scientific question

The scientific question addressed in the present paper was to systematically review published literature on the prevalence of osteopenia/osteoporosis and its associated risk factors in HIV-infected individuals [1].

## Key findings

The prevalence of osteopenia/osteoporosis in HIV-infected and ART-treated individuals was significantly higher than respective controls. However, evidence regarding bone loss within first year of HIV infection or ART initiation was preliminary.

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**Electronic supplementary material** The online version of this article (<https://doi.org/10.1007/s00198-018-4379-y>) contains supplementary material, which is available to authorized users.

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## Importance, timeliness, and interest

Bone loss in HIV-infected individuals may be more acute and accelerated, while in older people, bone loss occurs gradually over time. We recommend that HIV-infected and ART-treated individuals should be screened for osteopenia/osteoporosis during the first year of HIV infection or ART initiation, regardless of age or gender.

## Significance of findings

The prevalence of osteopenia/osteoporosis in HIV-infected and ART-treated individuals was two times more compared to controls. However, evidence concerning bone loss within the first year of HIV infection and ART initiation was preliminary. Findings from this study may assist clinicians to decide on when to screen HIV-infected individuals for osteopenia/osteoporosis as it is important to prevent unwanted fractures and to treat them accordingly.

## Compliance with ethical standards

**Conflict of interest** None.

## Reference

1. Goh SSL et al (2017) Reduced bone mineral density in human immunodeficiency virus-infected individuals: a meta-analysis of its prevalence and risk factors. *Osteoporos Int*