

## The 10-year Risk of Major Osteoporotic and Hip Fractures Among Indonesian People Living with HIV

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**Abstract :** Introduction: People living with HIV had a higher risk of osteoporotic fracture than the general population. The purpose of this study was to predict the 10-year risk of fracture among people living with HIV (PLWH) using FRAX™ and to identify characteristics related to the fracture risk. Methodology: This study consisted of 75 subjects. The ten-year probability of major osteoporotic fractures (MOF) and hip fractures was assessed using the FRAX™ algorithm. A cross-tabulation was used to identify the participant's characteristics related to fracture risk. Results: The overall mean 10-year probability of fracture was 2.4% (1.7) for MOF and 0.4% (0.3) for hip fractures. For MOF score, participants with parents' hip fracture history, smoking behavior and glucocorticoid use showed a higher MOF score than those who were not (3.1 vs. 2.5; 4.6 vs 2.5; and 3.4 vs 2.5, respectively). For HF score, participants with parents' hip fracture history, smoking behavior and glucocorticoid use also showed a higher HF score than those who were not (0.5 vs. 0.3; 0.8 vs. 0.3; and 0.5 vs. 0.3, respectively). Conclusions: The 10-year risk of fracture was higher among PLWH with several factors, including the parent's hip. Fracture history, smoking behavior and glucocorticoid used. Further analysis on determining factors using multivariate regression analysis with a larger sample size is required to confirm the factors associated with the high fracture risk.

**Keywords :** HIV, PLWH, osteoporotic fractures, hip fractures, 10-year risk of fracture, FRAX

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