

Preferences for weight gain compared with other antiretroviral therapy side effects among people living with HIV: a discrete choice experiment

Tieosapjaroen W,^{1,2}, Fairley C^{1,2}, Chow E¹⁻³, Aguirre I¹, Hoy J⁴, and Ong J^{1,2,5}

¹Melbourne Sexual Health Centre, Alfred Health, Melbourne, Australia, ²Central Clinical School, Monash University, Melbourne, Australia, ³Centre for Epidemiology and Biostatistics, The University of Melbourne, Melbourne, Australia, ⁴Department of Infectious Diseases, Alfred Hospital and Monash University, Melbourne, Australia, ⁵Faculty of Infectious Diseases, London School of Hygiene and Tropical Medicine, London, United Kingdom

Background: Antiretroviral (ARV) side effects are a critical determinant of adherence among people living with HIV (PLWH). Integrase Strand Transfer Inhibitors (INSTIs) are the most commonly used ARV but have recently been reported to cause weight gain. We aimed to determine the relative importance of weight gain compared to other ARV side effects for PLWH.

Methods: We conducted a discrete choice experiment (DCE) survey to explore PLWH's preferences for eight short-term side effects (e.g. weight gain, diarrhoea, depression) and for four long-term side effects (e.g. long-term weight gain and risks of heart attack). We sent a link to an anonymous survey through short message service (SMS) and postcards to PLWH attending Melbourne Sexual Health Centre (MSHC) and the Alfred Hospital in Victoria, Australia, between July and August 2021. The choice data were analysed using random parameter logit (RPL) and latent class (LCM) models.

Results: A total of 335 respondents were included: most were male (88.1%), and the mean age was 49.7 years. In the RPL analyses, PLWH ranked the relative importance of short-term ARV side effects as follows (from most important to least important): depression, weight gain, headache, diarrhoea, sleep, nausea, fatigue; and for long-term side effects as follows: risk of heart attack, kidney problem, weight gain and risk of bone fracture. In the LCM analyses, 23.9% were most sensitive to short-term weight gain, while 16.0% were most sensitive to long-term weight gain.

Conclusions: Overall, weight gain was the second most important among eight short-term side effects and the third most important among four long-term side effects in a cohort of Australian PLWH. However, there was a significant minority who were most sensitive to weight gain as a side effect of ARVs. We recommend that clinicians should actively discuss the possibility of weight gain for all PLWH taking ARVs.

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