Long-acting injectable antiretroviral therapy for HIV-1 infection in adults

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1 HIV-1 can be successfully treated with long-acting injectable antiretroviral therapy

A dual regimen combining the integrase strand transfer inhibitor cabotegravir with the nonnucleoside reverse transcriptase inhibitor rilpivirine[1] is the first complete long-acting, injectable, antiretroviral regimen for adults living with HIV-1.[2,3] Randomized trials have shown noninferiority of injectable cabotegravir–rilpivirine compared with conventional therapy for maintaining an HIV-1 viral load of less than 50 copies/mL, with durable responses up to 152 weeks.[1–3]

2 Candidates for cabotegravir–rilpivirine should be carefully selected

Cabotegravir–rilpivirine is currently approved for treatment of HIV-1 infection in patients who have an undetectable viral load (HIV-1 RNA < 50 copies/mL).[1] Contraindications include hepatitis B co-infection, known resistance to cabotegravir or rilpivirine, pregnancy or planned pregnancy, and use of some concomitant medications (Appendix 1, available at www.cmaj.ca/lookup/doi/10.1503/cmaj.231498/tab-related-content).[2,3]

3 Rarely, virologic failure occurs despite on-time injections

In a pooled analysis of randomized trials, virologic failure occurred in 1.25% (13/1039) of patients despite receiving injections on schedule.[4] Factors associated with virologic failure include body mass index of 30 or greater, HIV-1 subtype A6/A1, and proviral rilpivirine resistance–associated mutations.[4] However, some cases of virologic failure remain unexplained, and other risk factors are under investigation.[4]

4 The most common adverse events of treatment are injection site reactions

Long-acting cabotegravir–rilpivirine is administered via 2 gluteal intramuscular injections every 1 or 2 months.[2,3] Most patients experience injection site reactions such as pain, nodules, induration, swelling, erythema or bruising.[1] Most reactions are mild to moderate, and severity decreases over time; discontinuation owing to injection site reactions in clinical trials was uncommon (2%–3% over ~3 yr).[3]

5 Patient experience with cabotegravir–rilpivirine has varied, and implementation challenges exist

Users have expressed satisfaction with not having to take pills,[5] which can reduce stigma, reduce inadvertent disclosure of HIV status, overcome swallowing issues and facilitate short-term travel, among other benefits.[5] However, some users are inconvenienced by the frequency of visits for injection.[5] Further, the requirement for intramuscular injections requires health care providers to adapt clinic workflows to incorporate frequent visits, procure and store the drug, and ensure appropriate training of staff.[5]

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