

Impact of Direct Acting Antiviral for Hepatitis C in Antiretroviral Therapy in co-infected patients



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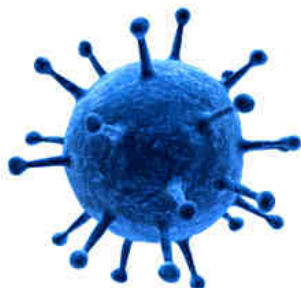
Background and purpose

When both HIV and HCV treatments are indicated, the antiretroviral therapy (ART) may need to be modified before HCV treatment is initiated to reduce the potential for drug-drug interactions and overlapping toxicities that may develop during the period of concurrent treatment. In this study we describe the modifications on ART when HIV/HCVcoinfected patients start HCV therapy with new direct-acting-antivirals (DAA) in our HealthCare Area and evaluate its economic impact on ART regimen costs.

Materials and Methods

Observational, retrospective study. Gender, ART regimen and its cost-per-month (previous/after starting HCV therapy) and HCV-regimen chosen were recorded of every HIV/HCVcoinfected patient who started therapy with new DAA agents (simeprevir, sofosbuvir, ledipasvir, daclatasvir, ombitasvir/paritaprevir/ ritonavir, dasabuvir).

Patient data, regimens prescribed and treatment cost were collected from External-Patients & Management Pharmacy's Database and analysed using SPSS statistical package.



Results

A total of 47 patients (15% female) started therapy with DAA agents during the time of the study. ART was modified in 26(55.3%) of them.

27 antiretroviral drugs were changed (in one patient 2 modifications were needed), 12 (44.4%) due to the substitution of one non-nucleoside reverse transcriptase inhibitor (NNRTI) and the other 15 (55.6%) corresponded to a change of a protease inhibitor (PI) of the original regimen. The modifications from a NNRTI to avoid interactions with DAAs resulted in the prescription of another not-contraindicated NNRTI (rilpivirine) in 8 (66.7%) cases, an integrase strand transfer inhibitor (INSTI) in 3 (25%), and a PI (darunavir/r) in 1 case (8.3%). The modifications from an original PI resulted in the replacement by another not-contraindicated PI in 5 patients, to an INSTI in 5 and to a NNRTI in another 5 (33.3% each).

The average ART cost-per-patient was 632.68€ monthly before starting HCV therapy, and 667.40€ later (variations from -169.73€ to +388.67€), which means an increase of 5.5% in the monthly cost-per-patient.

Conclusions

Original ART had to be modified in a high proportion of patients (more than half in our series) when started HCV therapy. All modifications were due to NNRTI and PI interactions with current DAA agents. These changes have led to a slight increase in the ART cost-per-patient, which can be considered acceptable for public spending.

