Rate and predictors of Integrase Inhibitor-uptake at Melbourne Sexual Health Centre

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Background

Integrase strand transfer inhibitors (INSTIs) are well tolerated and highly efficacious antiretroviral agents. They are endorsed in international guidelines as initial antiretroviral therapy (ART), and are often utilised for regimen simplification in treatment-experienced patients.

A sharp increase in INSTI use was observed by pharmacists at Melbourne Sexual Health Centre (MSHC), along with drug-related problems (DRPs) unique to INSTIs, such as interactions with complementary medicines.

Aim

This study examines and describes the:

• rate and predictors of INSTI-uptake at MSHC
• reasons for switching therapy, from other ART and between INSTIs
• incidence and nature of pharmacist-identified DRPs at time of switch

Methods

MSHC patients prescribed ART between 1st January 2013 and 31st December 2015 were identified from clinic and pharmacy records, and demographic and medical data was collected. The rate of INSTI-uptake was described using a Kaplan-Meier curve, and logistical regression was used to identify predictors associated with INSTI-uptake using STATA®. For patients who transitioned to INSTIs from another ART regimen, reasons for switching, prior regimen, and changes in pill burden were collected.

Incidence of pharmacist-identified DRPs at INSTI initiation was obtained from the pharmacy’s interventions database.

Results

A total of 1403 patients taking ART were identified from 1591 clinic attendees. Patients were more likely to be male, Australian or New Zealand-born, and the average age was 41 years (Table 1).

Table 1: Demographics of patients on antiretroviral therapy at MSHC

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Odds ratio (95% CI)</th>
<th>p value</th>
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<tbody>
<tr>
<td>Age</td>
<td>1.017 (1.007 - 1.007)</td>
<td>0.001</td>
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<tr>
<td>No. of clinic consultations during study period</td>
<td>1.053 (1.034 - 1.073)</td>
<td>&lt;0.0001</td>
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Reasons for switching to INSTIs from other ART included adverse effects, regimen simplification, co-morbidities and toxicity, while reasons for switching between INSTIs included simplification and adherence (Fig 3).

Conclusions

INSTI-uptake increased with drug availability in both treatment-naïve and experienced patients. Reasons for switching included side effects, co-morbidities and toxicity, as well as regimen simplification or to improve adherence. Pharmacists are well placed to identify and assist with drug-related issues and decision making when switching ART regimens.

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