Comparison of 5 online free access expert databases (OFAED) to check DDI between ARV drugs and co-prescribed medications from a French cohort of HIV-infected outpatients

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Background

- Due to aging, risk factors exposure, HAART and HIV related factors, HIV–infected patients are more likely to develop co–morbidities, potentially requiring different and long–term healthcare management\textsuperscript{1–4}
- Co–administration of ARV and non ARV drugs leading to potential drug–drug interactions (DDI) is a major challenge in the treatment of HIV–infection, especially in elderly patients since adverse events might be more severe\textsuperscript{5}
- DDIs may lead to therapeutic failure and HIV resistance
- The present study\textsuperscript{6} (sponsored by Gilead Sciences) was based on longitudinal delivery data from a panel of 7,052 French retail pharmacies (IMS Lifelink™ Treatments Dynamics database)
- Objectives: To search Drug Drug Interactions (DDI) between 4 ARV triple therapies (based on the 3rd agent as DTG, RPV, EVG/c and DRV/r) and co–prescribed medications using 5 online free access expert databases (OFAED) and to determine their performances in 17,127 HIV–infected French outpatients

\begin{itemize}
\item (2) Islam FM et al, HIV Med 2012;13(8):453-68 O212
\item (3) Hasse B et al, Clin Infect Dis. 2011;53(11):1130-9
\item (4) Orlando G et al, HIV Med. 2006 Nov;7(8):549-57
\item (5) Bonnet F et al, HIV Glasgow 23-26 October 2016, Abs O212
\item (6) Michard C et al, EACs 2017, Abs 10/8
\end{itemize}
ARV delivery records were analyzed during one year with stable treatment, as 2 NRTIs (ABC/3TC or FTC/TDF) + third agent

According to the whole list of different co–medications (n=1,566), homeopathic and topical treatments were eliminated for their low potential of DDI

Among the remaining co–medications (n=927), the more prescribed drugs reported in >2% of patients were selected to check DDI using the 5 OFAED

Results were ranked as:
- “No DDI”
- “DDI with no impact”
- “Move the drug intake”
- “Modify dose”
- “Monitor/Use with precaution”
- “Not recommended”
- “Use alternative”
- “Contraindicated”
- “Not referenced”

(L) was set as the Reference for comparisons

(L) www.hiv-druginteractions.org
(M) www.medscape.com
(E) www.epocrates.com
(D) www.drugs.com
(T) www.theriaque.org
Results

Distribution of relative frequency of DDI situations detected in the different OFAED (compared with Liverpool as reference)

Referenced drugs of interest, prescribed in >2% of our patients

<table>
<thead>
<tr>
<th>Drug</th>
<th>No DDI</th>
<th>Move drug intake or modify dose</th>
<th>Monitor or Not Recommended or Use Alternative</th>
<th>Contra-indicated</th>
<th>Not referenced</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPV</td>
<td>n=81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTG</td>
<td>n=97</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EVG/c</td>
<td>n=86</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DRV/ri</td>
<td>n=79</td>
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</tbody>
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Proportion of “Not referenced” DDI in OFAED (25–30%)