Biosimilars of Infliximab and Rituximab: Does the Initial Strategy of Selection Help Their Prescriptions?

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Introduction

- The biological medicines development was a major progress in treatment of chronic diseases and cancers.
- Their high costs are a financial issue for hospital. The arrival of biosimilar drugs improved their accessibilities by reducing their prices. Nevertheless, in France, their consumptions are still low.
- PHARMAVIENNE is an order group for health products of 30 public healthcare institutions, located in the Auvergne – Rhône-Alpes region (France). In 2016, a first biosimilar infliximab was referenced in this order group, whereas the first biosimilar Rituximab was referenced in 2018.

Objectives

- The purpose of this study was to measure and analyse the penetration rate of biosimilar Infliximab and biosimilar Rituximab in the PHARMAVIENNE hospitals in 2018.

Material and methods

- Creation of a web survey by a pharmacist resident, under the direction of pharmacists to collect:
  - Consumptions of Infliximab and Rituximab (biological reference products and biosimilar drugs) in the first 6 months of 2018
  - Hospitals’ initiation and switching strategies of biosimilar drugs
  - Associated measures adopted by pharmacists to promote biosimilar drugs such as presentation in internal drug committee, education documents for patients and/or for healthcare professionals...
  - Opinions concerning a possible switch from a biosimilar drug to another for the next PHARMAVIENNE tender

- The survey was online the 28th August 2018 for 1 month.
- The survey link was sent to hospital pharmacists consuming Infliximab and/or Rituximab in PHARMAVIENNE
- The results were analysed with Excel®
- Determination of penetration rate: defined as the percentage of biosimilar drug of the total of biological medicine

Results

- From the 8 hospitals consumers of infliximab and/or Rituximab, 7 replied to the survey (from 300 to 700 beds):
  - All were consumers of Infliximab: 4 were consumers of Rituximab

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Numbers of vials consumed</th>
<th>Penetration rates</th>
<th>Associated measures adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>242</td>
<td>25%</td>
<td>EH</td>
</tr>
<tr>
<td>Hospital B</td>
<td>208</td>
<td>0</td>
<td>PC + EH</td>
</tr>
<tr>
<td>Hospital C</td>
<td>2056</td>
<td>58%</td>
<td>PC + EH + EP</td>
</tr>
<tr>
<td>Hospital D</td>
<td>512</td>
<td>33%</td>
<td>PC + EH + EP</td>
</tr>
<tr>
<td>Hospital E</td>
<td>24</td>
<td>0</td>
<td>PC + EP</td>
</tr>
<tr>
<td>Hospital F</td>
<td>54</td>
<td>45%</td>
<td>EH</td>
</tr>
<tr>
<td>Hospital G</td>
<td>1358</td>
<td>25%</td>
<td>PC</td>
</tr>
</tbody>
</table>

Discussion

- The registration strategy seemed to have an influence on biosimilar drug penetration rate: Rituximab’s penetration rate was higher than Infliximab’s penetration rate whereas Rituximab was registered more recently.
- None of the educational tools provided was linked to a greater biosimilar penetration rate in this study.
- The first biosimilar immunotherapy registered in PHARMAVIENNE was Infliximab: this could explain why doctors are reluctant to switch from this biological reference product to its biosimilar.

Conclusion

- Although these hospitals adopted the same strategy of biosimilar selection, the penetration rate were significantly different from one hospital to another.
- In France, to switch a biological reference product by a biosimilar drug, it is necessary to get doctor’s and patient’s agreements.
- Consensus of national societies and experts recommendations should help pharmacists to convince prescribers and patients of the biosimilar drugs safety.

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