INTRODUCTION

Pharmacogenomics is the study of how genes affect a person’s response to medications. Pharmacogenomic tests are currently available to identify genetic polymorphisms in drug-metabolizing enzymes but their use is still limited in clinical practice.

OBJECTIVES

Primary objective: Describe and compare the perceptions and expectations of hospital pharmacists and pharmacy residents from Quebec towards pharmacogenomics

Secondary objective: Describe and compare the exposure and knowledge about available pharmacogenomics resources of hospital pharmacists and pharmacy residents from Quebec.

METHODOLOGY

Between January and March 2016, hospital pharmacists and pharmacy residents from Quebec were invited to respond anonymously to an online survey of twenty-three questions (Surveymonkey®, Palo Alto, CA, USA). The survey focuses on demographics, pharmacists’ expectations, fears, concerns and experience on pharmacogenomics. Only descriptive statistics were performed.

RESULTS

Table 1 - Demographics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Hospital Pharmacists (n=138)</th>
<th>Pharmacy Residents (n=135)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male 117 (84.5%)</td>
<td>115 (85.6%)</td>
</tr>
<tr>
<td>Age Group</td>
<td>25-34 69 (49.7%)</td>
<td>70 (51.9%)</td>
</tr>
<tr>
<td>35-44</td>
<td>35 (25.6%)</td>
<td>21 (15.6%)</td>
</tr>
<tr>
<td>45-54</td>
<td>19 (13.8%)</td>
<td>4 (3.0%)</td>
</tr>
<tr>
<td>&gt;55</td>
<td>5 (3.6%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Contain with pharmacy</td>
<td>Yes 106 (77.0%)</td>
<td>117 (86.4%)</td>
</tr>
<tr>
<td></td>
<td>No 32 (23.0%)</td>
<td>18 (13.6%)</td>
</tr>
</tbody>
</table>

Figure 2 - Training on pharmacogenomics

Did you received pharmacogenomics training in last 5 year - academic or other

Figure 3

Pharmacogenomic tests in clinical guidelines should be available for free?

Figure 4

Do you agree to receive your patient’s pharmacogenomics testing results, interpret them and advise your patient on treatment choice?

Figure 5

Are you worried that a health-insurance company could get information about the genetic predispositions of your patient when he is prescribed a target drug or dose?

Figure 6

Would you recommend testing if it could predict a specific drug’s efficacy?

DISCUSSION

These results are similar to those published in a previous Quebec survey conducted in 2011.

Limitation : the response rate is limited and the study population is heterogeneous with both pharmacists and pharmacy residents from Quebec and France.

CONCLUSION

Hospital pharmacists and pharmacy residents are open minded, positive and want to integrate pharmacogenomic in their practice. More training is required.