AN ONLINE APPROACH TO ENHANCE AWARENESS ON PHARMACOGENETICS AMONG PHARMACISTS AND PHYSICIANS

Althea Marie Xuereb1, Luana Mifsud-Buhagiar2, Francesca Wirth1, Anthony Serracino-Inglott1,2

1Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida, Malta
2Malta Medicines Authority, Malta Life Sciences Park, San Gwann, Malta
email: althea.m.xuereb.11@um.edu.mt

INTRODUCTION

Clinical implementation of pharmacogenomics (PGx) may be encouraged through increased awareness among healthcare professionals.1 Online-based learning methods provide improved access to information for healthcare professionals.2

AIMS

To develop, disseminate and evaluate PGx-related information to promote awareness among pharmacists and physicians.

METHOD

Development of tutorial and evaluation form

A tutorial ‘Pharmacogenetics: A tool for precision medicine’ was developed and recorded as a 15-minute video. Topics included: Nomenclature, Benefits of PGx, PGx-related information resources, Clinical application of PGx using three case studies (Oncology, Cardiology, Infectious disease) and Future directions. A questionnaire to evaluate the video was developed.

Validation of tutorial and evaluation questionnaire

The tutorial and evaluation questionnaire were validated for content and presentation by 5 pharmacists and 2 physicians.

Dissemination of tutorial and evaluation form:

i) Online to pharmacists (n=835) and physicians (n=984) via social media groups;
ii) Live presentation to pharmacists and physicians attending a workshop.

Statistical analysis of evaluation questionnaire results

Descriptive statistics were calculated as mean rating scores (1-lowest to 5-highest) for Likert-type questions.

RESULTS

- The evaluation questionnaire was completed by 66 participants (57 online, 9 live presentation). Thirty-three participants were pharmacists (25 female, 8 male, mean age 30 years) and 33 were physicians (15 female, 18 male, mean age 33 years).
- Fifty-six participants were willing to follow future online-based learning related to PGx. Participants’ agreement towards relevance of the discussion topics and information presented in the PGx video are shown in Table 1 and 2.

Table 1. Relevance of discussion topics (N=66)  
Table 2. Evaluation of information presented (N=66)

<table>
<thead>
<tr>
<th>Relevance of discussion topics:</th>
<th>Pharmacists (n=33)</th>
<th>Physicians (n=33)</th>
<th>Agreement of participants that information presented in the PGx video:</th>
<th>Pharmacists (n=33)</th>
<th>Physicians (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nomenclature related to PGx</td>
<td>4.1</td>
<td>3.5</td>
<td>Was up-to-date</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Benefits of PGx</td>
<td>4.5</td>
<td>3.9</td>
<td>May help to improve application of theory to practice</td>
<td>4.3</td>
<td>4.0</td>
</tr>
<tr>
<td>PGx information resources</td>
<td>4.4</td>
<td>3.9</td>
<td>Inspired them on the topic</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>PGx clinical case 1 (Oncology)</td>
<td>4.5</td>
<td>4.0</td>
<td>Helped them identify their strengths and weaknesses in PGx</td>
<td>4.2</td>
<td>3.8</td>
</tr>
<tr>
<td>PGx clinical case 2 (Cardiology)</td>
<td>4.5</td>
<td>3.9</td>
<td></td>
<td>4.3</td>
<td>3.7</td>
</tr>
<tr>
<td>PGx clinical case 3 (Infectious disease)</td>
<td>4.3</td>
<td>3.9</td>
<td></td>
<td>4.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

CONCLUSION

Participants in this study recognised the relevance of the discussed topics and considered the PGx-related information disseminated to be applicable in their practice. Both healthcare professionals were receptive towards following future online-based learning on PGx.

REFERENCES