Diabetic Patient Self-Monitoring

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INTRODUCTION
Self-monitoring of blood glucose (SMBG) is the process by which diabetic patients test their own blood glucose level at home using a blood glucose meter.

Continuous glucose monitoring (CGM) is increasing in use as an adjunct to SMBG or alone, and involves monitoring blood glucose concentrations continuously using a continuous glucose monitor.

AIMS
- To investigate the perception of patients with type 1 diabetes mellitus (T1DM) regarding self-monitoring of blood glucose (SMBG) and continuous glucose monitoring (CGM)
- To identify problems encountered when carrying out blood glucose monitoring.

METHOD
- A questionnaire on SMBG was developed in English and Maltese language and validated in a previous study by Cassar (2009). The questionnaire consists of 5 sections and was administered to patients via semi-structured interview at the Diabetes clinic at Mater Dei Hospital.¹
- The same questionnaire was used in this study, with the addition of a section on CGM.
- The setting chosen for this study is community pharmacy.

RESULTS
Table 1: Results obtained from the study showing differences between male and female gender (N=70)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male (N=32)</th>
<th>Female (N=38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Type 1 diabetes more than 5 years</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Answered ‘yes’ to problems encountered with painful pricking</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Answered ‘yes’ to problems encountered with cost of extra test strips</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>SMBG performed more than once daily</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Willing to utilise CGMS</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

Figure 1: Availability of time to perform daily SMBG (N=70)

CONCLUSION
Improving awareness and access to CGM is warranted to overcome self-monitoring problems identified, such as painful and frequent finger pricking. Patients are not adhering to the recommended daily schedule for SMBG for a number of reasons, including access to test strips and time limitations.

REFERENCES
1. Cassar J. Diabetic patient management (project). Msida (Malta): Department of Pharmacy, University of Malta; 2009.