Knowledge and therapeutic management of Alzheimer’s disease among community pharmacists in the Maltese Islands

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Background information

1 in 20 individuals aged over 65 years are living with AD (Alzheimer Europe, 2011)

Expensive condition

- In the world: €450b/year
- In Malta: €63-96m/year
- In EU: €22,000/patient/year
- Most of the cost: Informal care (60%)
Dementia in Malta

Birth rate: 1.4

80 years and over: 3.2% (2013) → 11.8% (2060)

A progressive increase in the elderly population

"Living well in a dementia-friendly society"

23rd Alzheimer Europe Conference, St. Julian’s, Malta, 10-12 October 2013.
Malta Dementia Strategy Group

Launch: May 2009

Objective: Develop a series of recommendations on a strategic plan to enhance dementia care in Malta

Tasks: Current situation, consultation process, final recommendations

Recommendations presented in January 2010

“Living well in a dementia-friendly society”
23rd Alzheimer Europe Conference, St. Julian’s, Malta, 10-12 October 2013.
Current Situation Analysis - Awareness

Lack of awareness

General Public

Healthcare professionals

Awareness will improve early and timely diagnosis

A 5 year delay in AD onset will ↓ AD prevalence by 50%

Recommendation 1: Improve awareness of dementia in the community and in relevant professional and non-professional fields
AIM

“to investigate community pharmacists’ knowledge and therapeutic management of AD in the Maltese Islands”
Why community pharmacists?

- Are first-contact points of reference
- Can assist in early intervention
- Can offer support and education
- Can assist in locating services that are available
- Expectations about the disease and its treatment

Potential barrier

- Lack of knowledge
METHODOLOGY

• Anonymous questionnaire distributed by post to all community pharmacists working in the Maltese Islands. Questionnaire covered demographics, knowledge on AD (ADKS: 30 T/F), pharmacotherapy (pharmacotherapy measurement: 20 T/F), attitudes and perceptions.

• Ethics approval obtained from the Faculty of Medicine and Surgery Ethics Committee and the University of Malta Research Ethics Committee.

• One-way ANOVA used to determine any group effects.
RESULTS – Key findings

Distribution of gender

- Male: 72.7%
- Female: 27.3%

(N=121, 56.8%)

Mean age: 36 years
Range: 23-78 years

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ADKS

Most familiar with symptoms, treatment and management

Poor knowledge about the disease’s risk factors and caregiving

Average score: 21.45/30

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ADKS vs. age

$r(121) = -0.426, p < 0.001$

ADKS vs. graduation year

$r(119) = 0.364, p < 0.001$
## Pharmacotherapy score

<table>
<thead>
<tr>
<th>Statement</th>
<th>Correct item answer</th>
<th>Frequency of scores</th>
<th>% Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-pharmacological interventions such as aroma therapy, music and animal assisted therapy are helpful in the management of the behavioural symptoms in AD</td>
<td>T</td>
<td>106</td>
<td>87.6</td>
</tr>
<tr>
<td>Pharmacological treatment of AD aims at improving cognitive function</td>
<td>T</td>
<td>105</td>
<td>86.8</td>
</tr>
<tr>
<td>AD patients will continue to decline in cognitive function when initiated on AD treatment</td>
<td>T</td>
<td>62</td>
<td>51.2</td>
</tr>
<tr>
<td>Memantine (Axura®) can be co-administered with AChEIs</td>
<td>T</td>
<td>61</td>
<td>50.4</td>
</tr>
<tr>
<td>Benzodiazepines are recommended to control anxiety in AD</td>
<td>F</td>
<td>48</td>
<td>39.7</td>
</tr>
<tr>
<td>It is safe to treat the behavioural symptoms in AD with antipsychotics</td>
<td>F</td>
<td>42</td>
<td>34.7</td>
</tr>
<tr>
<td>AD pharmacotherapy stops the decline in activities of daily living in patients with AD</td>
<td>F</td>
<td>35</td>
<td>28.9</td>
</tr>
</tbody>
</table>
Pharmacotherapy score (PS)

PS vs. age

\[ r(121) = -0.234, \ p < 0.01 \]

Average score: 13.08/20

PS vs. graduation year

\[ r(119) = 0.238, \ p < 0.01 \]
Pharmacists’ attitude to their role in AD

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree/Agree</th>
<th>Neither</th>
<th>Strongly Disagree/Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacists have the necessary training and skills in AD management</td>
<td>6 (5%)</td>
<td>31 (25.6%)</td>
<td>84 (69.4%)</td>
</tr>
<tr>
<td>There are adequate community services for individuals with AD in Malta</td>
<td>8 (6.6%)</td>
<td>37 (30.6%)</td>
<td>76 (62.8%)</td>
</tr>
<tr>
<td>It is advisable that individuals suspecting symptoms of AD should be referred to the Memory Clinic by their doctor</td>
<td>112 (92.6%)</td>
<td>5 (4.1%)</td>
<td>4 (3.3%)</td>
</tr>
<tr>
<td>AD diagnosis should be disclosed to the patient</td>
<td>53 (43.8%)</td>
<td>41 (33.9%)</td>
<td>27 (22.3%)</td>
</tr>
<tr>
<td>Community pharmacists are in a position to advice patients and relatives on AD management</td>
<td>71 (58.7%)</td>
<td>21 (17.4%)</td>
<td>29 (23.9%)</td>
</tr>
<tr>
<td>Regular seminars should be held for pharmacists to increase their knowledge on AD management and services that are available</td>
<td>117 (96.7%)</td>
<td>4 (3.3%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>There is adequate communication between community pharmacists and other healthcare professionals in AD management</td>
<td>7 (5.8%)</td>
<td>15 (12.4%)</td>
<td>99 (81.8%)</td>
</tr>
<tr>
<td>Information leaflets on AD should be available in community pharmacies</td>
<td>120 (99.2%)</td>
<td>1 (0.8%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>There is enough awareness on AD</td>
<td>8 (6.6%)</td>
<td>16 (13.2%)</td>
<td>97 (80.1%)</td>
</tr>
</tbody>
</table>
MAIN CONCLUSIONS

• Community pharmacists are unfamiliar with risk factors and dementia caregiving
• Community pharmacists have over-expectations of AD pharmacotherapy. Advocacy of this over-expectation may lead to disappointing response amongst individuals with AD and caregivers.
• The relatively low recognition of the dangerous use of antipsychotics in dementia is worrisome
• Training at tertiary education level improved our graduate pharmacists’ knowledge on AD
• Lack of familiarity to local community services could be an obstacle to longitudinal dementia care
• AD is increasingly challenging to community pharmacists who have graduated prior to the year 2002

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