INTRODUCTION

Several characteristics of ageing make selection of appropriate drug therapy a challenging task. Optimisation of drug therapy in older persons may be facilitated by application of medication assessment tools.

METHODS

- Development of MAT-CVA involved selection of key criteria from clinical practice guidelines for secondary prevention of stroke, which were presented as a ‘qualifying statement’ followed by a ‘standard’. An application guide was compiled where justifications for non-adherence were specified.
- Content validity was tested using a two-round Delphi process among an expert group consisting of nine reviewers. The application guide was reviewed based on recommendations by the expert group in both rounds. Inter- and intra-observer reliability testing was conducted with agreement expressed by Cohen’s kappa (κ) and application time measured to assess feasibility.
- The designed MAT-CVA was applied to 150 patients with a history of stroke/transient ischaemic attack admitted to Rehabilitation Hospital Karin Grech, a geriatric and rehabilitation hospital.

RESULTS

- The developed MAT-CVA consists of 17 criteria (Figure 1).
- Content validity was demonstrated for all criteria (consensus threshold 75%).
- Reliability was confirmed with κ-values of 0.80 for both inter- and intra-observer agreements. Mean application times were 5.55 (SD 1.96) and 6.56 minutes (SD 1.74) with significant correlation for both inter-observer ($r=0.6$, $p=0.001$) and intra-observer tests ($r=0.8$, $p<0.001$ and $r=0.4$, $p=0.032$).
- 60.7% of the study population were female and mean age was 79.5 years (SD 8.2). 1363 criteria (53.5%) out of a total of 2550 were applicable. Adherence to applicable criteria was 55% and justified non-adherence was 22.3%. Non-adherence was predominantly evident for prescription of anticoagulation in atrial fibrillation (36.4%), thiazide diuretics +/- ACE inhibitors for hypertension (26.8%) and dipyridamole at recommended dose (24.0%). Monitoring of HbA1c was deficient in 57.1% of patients.

CONCLUSION

Content validity, reliability and feasibility of MAT-CVA have been demonstrated. Application of MAT-CVA criteria indicated good overall adherence and highlighted specific gaps in clinical performance which may be targeted to enhance optimisation of drug therapy.

Acknowledgements

The authors would like to thank Professor Liberato Camilleri, Head of the Department of Statistics and Operations Research in the Faculty of Science at the University of Malta, for his assistance with the statistical analysis. The authors would also like to thank the consultant geriatricians, consultant neurologists and clinical pharmacists who participated in the validity, reliability and feasibility testing.

OBJECTIVES

To design, psychometrically evaluate and implement a medication assessment tool for secondary prevention of stroke (MAT-CVA) with particular relevance to older persons to assess adherence to clinical practice guidelines.

Figure 1: The developed MAT-CVA

<table>
<thead>
<tr>
<th>MAT-CVA</th>
<th>Medication assessment tool for secondary prevention of ischaemic CVA in patients ≥70 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifying statement (q)</td>
<td>Standard (s)</td>
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<tr>
<td>Patient with ischaemic CVA/TIA...</td>
<td>Patient name, Date</td>
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<tr>
<td>Antithrombotic therapy</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>a no antiplatelet therapy is prescribed</td>
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<tr>
<td>2</td>
<td>a no anticoagulant therapy is prescribed</td>
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<td>3</td>
<td>a no antiplatelet therapy or anticoagulant due to contraindication/preference</td>
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<td>4</td>
<td>a no antiplatelet therapy due to bleeding risk, non-compliance or other contraindications</td>
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<tr>
<td>17</td>
<td>a no antiplatelet therapy due to bleeding risk, non-compliance or other contraindications</td>
</tr>
</tbody>
</table>

Lipid lowering therapy

- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
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- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no statin therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |

Antihypertensive therapy

- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
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- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |
- a no antihypertensive therapy is prescribed in a patient with cardiovascular disease or diabetes | Q | S | Y |

Diabetes therapy

- a no insulin therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |
- a no oral glucose therapy is prescribed in a patient with diabetes | Q | S | Y |

CVA cerebrovascular accident, TIA transient ischaemic attack, IDq insufficient data for qualifying statement, IDr insufficient data for standardised statement, N/A not applicable, Q yes, N no, CNA no, Y yes, N no, Nj justified no, IDq insufficient data for qualifying statement, IDr insufficient data for standardised statement, N/A not applicable, Q yes, N no, CNA no, Y yes, N no, Nj justified no, IDq insufficient data for qualifying statement, IDr insufficient data for standardised statement, N/A not applicable.