ASSessing usual levels of excretion In the elderly: implications for cardiovascular disease

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Introduction

Daily urinary electrolyte excretion (a measure of intake) in elderly persons has not previously been reported. Such persons are at high risk of cardiovascular disease (CVD) which can be influenced by electrolyte intake. Consequently, it has been recommended that sodium intake be reduced to 100 mmol/d and potassium increased to 90 mmol/d. The study aim was to estimate usual electrolyte excretion in well elderly persons.

Methods

Male and female subjects aged 65-80 recruited from GP lists of persons known not to be taking prescribed medication were asked to collect 3-11 24-h urine samples. The mean excretion of sodium (Na) and potassium (K) was calculated for each subject and the group mean calculated.

Results

A total of 321 24h urine collections were analysed from 66 subjects (age 71±5 y). Mean ± SD, median and interquartile range of electrolytes are shown below.

<table>
<thead>
<tr>
<th>Electrolyte</th>
<th>Mean mmol/24h</th>
<th>Median mmol/24h</th>
<th>Q1 - Q3</th>
<th>Range mmol/24h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Na</td>
<td>149±45</td>
<td>136</td>
<td>122-168</td>
<td>75-302</td>
</tr>
<tr>
<td>K</td>
<td>67±18</td>
<td>65</td>
<td>54-76</td>
<td>38-133</td>
</tr>
</tbody>
</table>

Conclusions

Only 7 (11%) and 6 (9%) of persons had Na ≤ 150 and K ≥ 90 mmol/24h, respectively. There is great scope through public health measures to alter diet and hence electrolyte intake with the aim of reducing the risk of CVD.