Anticoagulants in ≥80 Year-Old Patients Assessed in an Emergency Department Setting – Too Much Medicine?

Jelte M. Bleskensgård, MD, Thomas J. Schönfeld, MS, DMSc, Emergency Department, Holbaek University Hospital, Denmark

WHAT?
A chart review of 303 patients of ≥80 years of age, seen in a Danish secondary ED over a one month period. Patient record were used to investigate anticoagulant (AC) use, hospital outcome, all-cause mortality, length of stay and cause of ED visit.

WHY?
To assess:
- How many very elderly patients were on ACs, and which kinds of ACs were in use.
- Whether patients on ACs were more likely to present with clinically relevant haemorrhages, such as ICH or C2 bleeding, than patients without ACs.
- Whether patients on ACs were inadequately protected against severe thromboembolic events, such as MI and LAVH.
- Whether there were differences between patients in the traditional Vitamin K antagonist (VKA) treatment compared with novel Oral Anticoagulants (NOACs).

WHO WERE INCLUDED?
A chart review of 303 patients of ≥80 years of age, seen in a Danish secondary ED over a one month period. Patient record were used to investigate anticoagulant (AC) use, hospital outcome, all-cause mortality, length of stay and cause of ED visit.

WHICH DRUGS WERE USED?

<table>
<thead>
<tr>
<th>Type of Medication</th>
<th>Number of Patients</th>
<th>% of Total Study Population</th>
<th>% of Patients in Anticoagulant Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin K Antagonists</td>
<td>65</td>
<td>14.8%</td>
<td>26.5%</td>
</tr>
<tr>
<td>NOACs</td>
<td>50</td>
<td>8.6%</td>
<td>15.9%</td>
</tr>
<tr>
<td>ADP Receptor Inhibitors</td>
<td>36</td>
<td>11.7%</td>
<td>18.7%</td>
</tr>
<tr>
<td>Acetylsalicylic Acid</td>
<td>65</td>
<td>21.3%</td>
<td>32.1%</td>
</tr>
<tr>
<td>In Treatment with Multiple Drugs</td>
<td>17</td>
<td>5.5%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Total</td>
<td>356</td>
<td>62.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2: Drug use in patients ≥80 years of age

WHO WERE WELL MANAGED?

- Patients in VKA therapy trended towards longer LOS than other groups
- There was no difference in LoS or All Cause Mortality
- Patients in VKA therapy were significantly more likely to experience falls than patients without anticoagulant therapy, OR 4.5 (95% CI 1.78-11.0), p=0.009.

WHAT WERE THE MAJOR OUTCOMES?

- Thrombotic Events
- Haemorrhages
- Dizziness
- Confusion with general deterioration
- Dyspnea
- Bleeding
- Observed thrombosis
- General deterioration
- Other medical complications
- Other major events
- Deaths

Table 3: Thrombotic events

Diagram 1: Thrombotic events

Diagram 2: Haemorrhages

Diagram 3: Other complications

Diagram 4: Mortality

Diagram 5: Treatment

Further analysis

- Mortality was lower in patients on NOACs, but this difference was not statistically significant.
- The treatment of anticoagulants was similar between the groups.
- There was no difference in the incidence of hemorrhagic complications between the groups.
- There was a trend towards a lower incidence of thrombotic events in patients on NOACs.

DISCUSSION

- This study is one of the first to compare the outcomes of very elderly patients on VKA and NOACs.
- The results suggest that NOACs may be a safer option for this population, but further research is needed to confirm these findings.

TAKE AWAY:

- The use of NOACs may be a safer option for very elderly patients, but further research is needed to confirm these findings.
- Anticoagulant therapy should be individualized based on patient characteristics and the risk-benefit ratio.
- Clinicians should be aware of the potential for bleeding and thrombotic events when managing anticoagulant therapy in very elderly patients.

Limitations and Future studies

- This study is retrospective and cross-sectional, and therefore cannot establish causality.
- The sample size is small and further studies with larger sample sizes are needed to confirm these findings.
- Future studies should include a head-to-head comparison of VKA and NOAC therapy in very elderly patients.

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JELTE M. BLESKENSGÅRD, MD, THOMAS J. SCHÖNFELD, MS, DMSc, EMERGENCY DEPARTMENT, HOLBÆK UNIVERSITY HOSPITAL, DENMARK

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