ANALYSIS OF THE RISK OF QT INTERVAL PROLONGATION IN INSTITUTIONALISED ELDERLY PATIENTS IN A NURSING HOME


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BACKGROUND: The QT-interval prolongation in the electrocardiogram can trigger an arrhythmia (Torsades de Pointes) that usually resolves spontaneously, although sometimes it can cause ventricular-fibrillation and sudden-death. Drugs are a frequent cause of QT-interval prolongation, therefore, it is recommended to analyze the risk of QT-interval prolongation especially in elderly polymedicated patients.

PURPOSE: To know the prevalence of patients belonging to a Nursing Home (NH) with prescription of drugs with defined and potential risk for producing prolongation of QT-interval. Assess the concomitance of these drugs and history and/or cardiac pathologies.

MATERIALS AND METHODS: Descriptive cross-sectional study.

Selected patients: Patients belonging to a NH who had active electronic-prescription.

Main variable: Percentage of patients treated with drugs with defined and potential risk of QT-interval prolongation (DR-QT and PR-QT, respectively), according to the levels of evidence in the AZCERT-list. Concomitant prescription of these drugs in a single patient is also assessed.

Secondary variables:
- Main therapeutic groups prescribed with DR and PR-QT.
- Concomitance of their prescription along with history and/or cardiac pathologies.

Demographic, clinical and analytical data were obtained from the electronic-clinical-history and treatment data from the electronic-prescription-program.

RESULTS:

- 87 PATIENTS:
  - average age: 66 years (52-101).
  - 55.2% (48/87) men.
  - 70% assisted (70/87).

Percentage of patients treated with DR-QT drugs

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<thead>
<tr>
<th>Percentage of patients treated with DR-QT drugs</th>
<th>History and/or cardiac pathologies.</th>
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<tbody>
<tr>
<td>DR-QT drugs</td>
<td>11/87 (13%)</td>
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<tr>
<td>PR-QT drugs</td>
<td>11/87 (13%)</td>
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<tr>
<td>DR-QT + PR-QT drugs</td>
<td>2/87</td>
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<tr>
<td>PR-QT + PR-QT drugs</td>
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Percentage of patients treated with PR-QT drugs

- Antipsychotics: 8.
- Antidepressants: 8.
- Genitourinary: 15.
- Others: 38.

CONCLUSIONS: A quarter of institutionalized elderly patients in a NH are being treated with an DR and/or PR-QT drugs, in almost half of the cases with a history and/or cardiac pathology. The main therapeutic groups involved were antidepressants and antipsychotics.