MEDICATION-RELATED ADMISSION WAS MORE FREquent IN ELDERLY PATIENTS HOSPITALISED IN AN ORTHOPEDIC UNIT THAN IN AN EMERGENCY DEPARTMENT IN TWO FRENCH HOSPITALS

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Background and Importance

Medication-related admissions (MRAs) are common in elderly and are preventable in almost half of cases. Pharmaceutical care aims to promote medication safety and reduce potentially inappropriate prescriptions. In our hospitals, clinical pharmacists perform medication reviews in both emergency department (ED) and orthopedic units. As part of an ongoing process of quality improvement, we conduct a study to identify MRAs in patients over 75 years old hospitalized in these two clinical settings.

Aim and Objectives

The aim of this study was to compare MRAs prevalence in elderly patients hospitalized in ED and orthopedic units, in order to reassess the management of clinical pharmacists’ interventions during hospitalizations.

Material and Methods

This prospective observational multicenter study was conducted between May 2019 and March 2020, including patients over 75 admitted in the ED and orthopedic surgery departments of 2 French hospitals. We use the AT-HARM10 tool* to distinguish possibly vs unlikely MRAs in elderly patients.

Results

Emergency Department (ED) :

<table>
<thead>
<tr>
<th>Demographics</th>
<th>166 patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex ratio</td>
<td>66M/100F</td>
</tr>
<tr>
<td>Mean age</td>
<td>86.0 ± 5.7 y.o.</td>
</tr>
<tr>
<td>Mean number of prescribed drugs</td>
<td>7.7 ± 3.8</td>
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We included 266 patients

Orthopedic Units :

<table>
<thead>
<tr>
<th>Demographics</th>
<th>100 patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex ratio</td>
<td>30M/70F</td>
</tr>
<tr>
<td>Mean age</td>
<td>85.2 ± 6.1 y.o.</td>
</tr>
<tr>
<td>Mean number of prescribed drugs</td>
<td>6.4 ± 3.6</td>
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- The most represented question was P5 in both groups
- « Might side effects of the medications the patient was taking prior to hospitalization have caused the admission? »
- We identified 91 (55%) MRAs in ED and 76 (76%) MRAs in orthopedic units (p<0.05). Approximately half of all admissions in Kempen’s study were considered possibly medication-related, according to both the gold standard experts (50%) and the AT-HARM10 assessments (48–58%).

ATC code for drugs involved in MRAs in ED

Most involved drugs were acting on nervous system (ATC-N), followed by blood system (ATC-B) in ED like previous studies.

ATC code for drugs involved in MRAs in Orthopedic Units

We found MRAs rates comparable to results reported in previous studies about elderly patients in ED. MRAs were more frequent in elderly patients admitted in orthopedic surgery. These results lead us to prioritize more medication reviews by clinical pharmacists for older patients in surgery departments, to guarantee a continuity of patient's care and potentially avoid re-hospitalizations.