A SAFE HANDLING HAZARDOUS DRUGS STRATEGY TO IMPROVE HEALTH WORKERS SAFETY: REDUCING EXPOSURE BY MEDICAL PRESCRIPTION REVIEW IN NURSING HOMES.

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Background and importance
The occupational risk due to the exposure to hazardous drugs (HDs) has been a mounting concern to healthcare professionals, including in nursing homes.

Objectives and aims
To study the impact of a strategy to improve HDs safe handling by procedures and pharmacist medication review.

Materials and methods: Prospective, multicenter, pre-post intervention study.

Pharmacist interventions:
- Collaborating in HDs work procedures development
- Training and educational programme
- HD identification and medication review in order to withdraw, replace or reduce HD’s handling
- Calculate HD interventions acceptance

Results
58,656 lines of treatment; Pre-intervention HDs: 2,732 (4.7%) in 2,394 users

<table>
<thead>
<tr>
<th>HD classification:</th>
<th>NIOSH list 1: 7.6%</th>
<th>NIOSH list 2: 43.1%</th>
<th>NIOSH list 3: 49.3%</th>
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</thead>
<tbody>
<tr>
<td>HD preparation-administration handling:</td>
<td>NIOSH list 1: 8.5%</td>
<td>NIOSH list 2: 36.7%</td>
<td>NIOSH list 3: 41.1%</td>
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</tbody>
</table>

584 interventions; 42.0% intervention acceptance

Post-intervention HDs: 1,924 (3.3%)

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<thead>
<tr>
<th>HDs</th>
<th>Post-intervention</th>
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<tr>
<td>Risperidone</td>
<td>NIOSH list 1: 9.0%</td>
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<tr>
<td>Atenolol</td>
<td>NIOSH list 2: 25.5%</td>
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<td>Paliperidone</td>
<td>NIOSH list 3: 65.5%</td>
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Conclusion and relevance
The exclusion of risperidone and paliperidone has meant a very significant reduction of HDs in nursing homes. This particular medication review, supported by a standardized procedure, individual interventions and training, also contributed to the adequacy of HDs prescription.

The pharmacist is a key advisor in HDs safe handling strategies, also in nursing homes.

KEYWORDS: nursing home, hazardous drugs, medication review.

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