ANALYSIS OF HANDLING OF HAZARDOUS DRUGS IN A NURSING HOME

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BACKGROUND
Hazardous drugs (HD) are drugs that exhibit one or more of the following six characteristics in humans or animals: carcinogenicity, teratogenicity or other developmental toxicity, reproductive toxicity, organ toxicity at low doses, genotoxicity, and structure and toxicity profiles of new drugs that mimic existing drugs determined hazardous by the above criteria.

Exposure to HD in workplaces could lead to serious health risks, which increase with exposure frequency; therefore, it is crucial to limit it with appropriate equipment.

OBJECTIVES
To identify the HD used in a nursing home and analyse the use of appropriate self-protection measures by nursing staff.

MATERIAL AND METHODS
Data collected:
• Age
• Sex
• Staff at reproductive risk
• Use personal protective equipment (PPE) during HD handling
• Use or not of hazardous drug waste containment

RESULTS
• 152 drugs → 11HD
• 24 Nurses (14♀, 10♂); median age 41 years
• Personal at reproductive risk: 10 (7♀, 3♂)

HD categorized according the reference documentation (NIOSH and INSST)

SELF-PROTECTION MEASURES:
Insufficiently
- Double gloves
- Goggles with side shields

WASTE DISPOSAL:
Inadequate

• HD identified:
  ✓ Acenocoumarol (Group 3)
  ✓ Bicalutamide (Group 1)
  ✓ Carbamazepine (Group 2)
  ✓ Clonazepam (Group 3)
  ✓ Lamivudine (Group 2)
  ✓ Paroxetine (Group 3)
  ✓ Risperidone (Group 2)
  ✓ Spironolactone (Group 2)
  ✓ Tacrolimus (Group 2)
  ✓ Topiramate (Group 3)
  ✓ Valproic acid (Group 3)

Group 1: 18%
Group 2: 36%
Group 3: 46%

CONCLUSIONS
• Mishandling of HD was widespread: nursing staff didn’t used PPE as recommended by administration guidelines for hazardous drugs. There is no awareness of suitable waste disposal.

• Pharmaceutical interventions could decrease the potential risk of occupational exposure.