

# CIRCUIT TO PREPARE AND CONDITION ORAL HAZARDOUS MEDICINES

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## BACKGROUND AND IMPORTANCE

Due to current recommendations of National Institute for Occupational Safety and Health (NIOSH) it has been necessary to ensure the safety of hospital workers when handling hazardous drugs (HD).

## AIM AND OBJECTIVES

Design a circuit to **prepare and condition oral** HD in a Pharmacy Service (PS).

## MATERIAL AND METHODS

- The HD included in the hospital documented by the NIOSH were **selected**, as well as those that due to their structure, mechanism of action and toxicity were similar to some HD or that some danger characteristic were reflected in their data sheet.
- In Farmatools (electronic PS prescription) and electronic medical records programs, the HD were **identified** by adding HD or HD-RR (HD if reproductive risk) to their description and recommendations for their preparation and administration were incorporated in the file of each HD (this information was integrated into nursing pharmacological activity sheet, where they register the medication administered to patients).
- Labels were designed to identify HD boxes in the PS.
- The following “**Observations on the dispensation**” were defined and included in Farmatools:
  - **SOLID DRUGS: repackaged in blister, fractionated and repackaged in blister, dosed in capsule and repackaged in blister.**
  - **SOLID DRUGS ADMINISTERED BY TUBE OR FOR PATIENTS WITH SWALLOWING PROBLEMS: tablet packaged in syringe, crushed tablet and repackaged in syringe, powder repackaged in syringe, dosed and powder repackaged in syringe.**
  - **LIQUID DRUGS: solution/suspension repackaged in syringe.**
- A guide was prepared for the administration by tube or for patients with swallowing problems (possibility of disintegrating or diluting in water, volume and time required, need to crush, etc).

## RESULTS

- Identification and recommendations in the computer programs has allowed to locate HD treatments in the PS to dispense them prepared and nurses can differentiate them to request them when necessary.
- With the pharmaceutical validation of the prescription, the most appropriate pharmaceutical forms are adapted and the corresponding observation is selected for each prescribed HD.
- Generating “**Treatment Location List according to Observations**”, which facilitates Farmatools, it has been achieved that PS personnel obtain the relationship, pharmaceutical form and conditioning of the prescribed HD that have to be prepared.

## CONCLUSIONS AND RELEVANCE

Changes in computer programs have allowed design a circuit to prepare and condition oral HD and improve the safety of hospital workers.

