

# Risks and inefficiencies in hospitals caused by inadequate packaging of oral medications

**BACKGROUND.** Lack of adequate packaging of oral solid medications is an important source of inefficiency in hospitals. This inadequate labeling requires the pharmacy to repackaging them. This process generates new potential medication errors because repackaged pills look-similar, making easy to confuse them with one another.

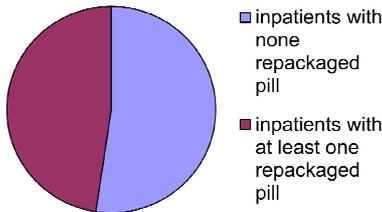
**PURPOSE.** To evaluate the extent to which drugs prescribed to inpatients were manipulated in hospitals because of their inadequate marketed presentation (because data appear printed for a group of pills rather than each one). Wasted in the process of adequation of medication trade-dress were evaluated, as was the proportion of look-alike repackaged drugs.

## MATERIAL AND METHODS

A prospective longitudinal study was carried out (14 days) in a tertiary hospital. Pharmacotherapy prescribed to adult admitted patients was daily evaluated (410 beds). Using a CPOE program (FarmaTools®) pharmacists checked the number of repackaged look-alike drugs dispensed to these patients on a daily basis. Moreover, we checked the number and time consumed in repackaging pills.

## RESULTS

Pharmacotherapy of 4,199 inpatients was analyzed. Of them, 2,000 received at least one repackaged pill.



Admitted patients received a total of 3,336 repackaged look-alike drugs.

Specialties most frequently involved were Internal Medicine(73.3% of their inpatients) and Hematology(70.7%). 13,758 units were repackaged in the pharmacy service, which meant that 983 media of look-alike medications were generated every day (80 minutes approximately were daily wasted ).

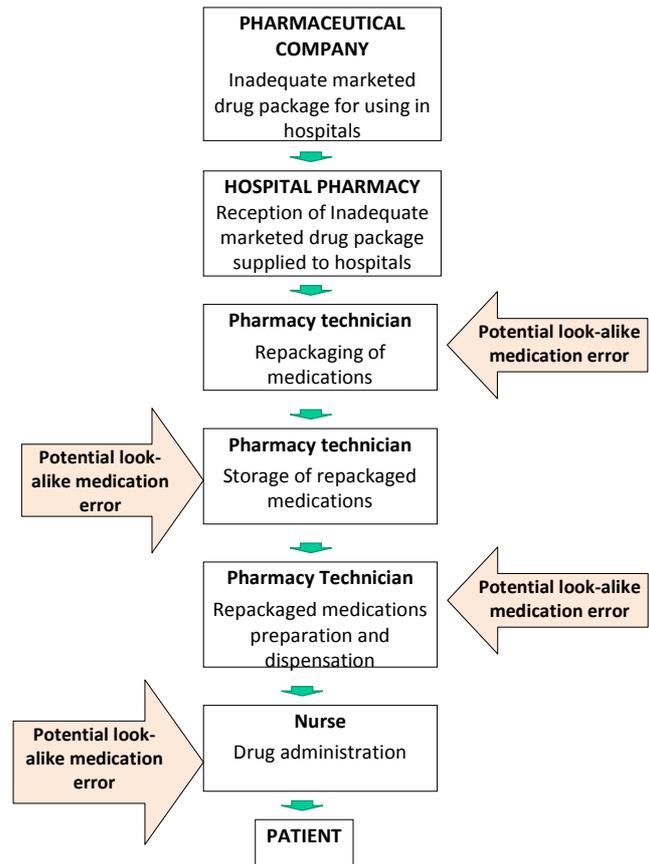


Over the study period, a dispensing error related to look-alike repackaged pills occurred because of confusion in their storage.

## CONCLUSIONS

There is a high rate of inadequately marketed oral medications being dispensed to inpatients. Medications marketed in blister packs require individual pills to be repackaged by pharmacy services, leading to a waste of time. This process may constitute a hazard to patient safety, increasing medical errors because repackaged pills look similar.

Drugs regulatory agencies should promote standards for packaging and labeling of drugs individually identified to improve safety and efficiency in the medication use process in hospitals



Flowchart: Weak points for look-alike medication errors involving repackaged drugs used in a hospital.