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## Computerized labeling of open multidose medicines: an example of good practice for patient safety

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### What was done?

Medication safety practices are a cornerstone for reducing medication errors and patient harm.

Hospital pharmacist has been recognized as one of main healthcare providers that can support the physicians and the nurses in this item.

The computerized labeling of multidose medicines when they were opened is a good practice for safe medication use which is performed from the Fondazione Toscana G. Monsaterio (Italy) since 2022.



### Why was it done?

The routine control activity of the department's drug stocks includes the verification of drugs expiration date and the timely removal of drugs before they have expired their validity.

In the case of opened multi-dose medicines, this operation is more complex as their validity is often reduced.

Our aim was to provide to all healthcare professionals a quick and safe computerized labeling tool, which is constantly updated by the pharmacist based on availability of drugs in the hospital wards

### How was it done?

A multidisciplinary team (pharmacist, nurse and computer scientist) developed a multi-dose drug labeling system linked to the patient's medical record which allows the generation of a label every time a prescription for a multi-dose drug is presented, before patient administration. The team discussed the content of the label and selected the categories of drugs that needs to be included.



### What has been achieved?

The categories of drugs included in our program are syrups, oral suspensions, ophthalmological and otological preparations and oral drops. We used a computerized program to fill the information about the validity after opening such as days and storage temperature and indicating the source of the information.

The new system allows to easily check the validity after opening for all multi-dose drugs, before administration to the patient. This implementation not only guarantees patient safety, but also offers support to all nurses or physicians for any subsequent administration of the same drug and simplifies deadline checking operations of the department's drug stocks.

### What next?

We will continue to keep the labeling program updated by including new drugs available in our hospital. We would like that the information on post-opening shelf life was always included in drug SmPCs and that the good practice of computerized labeling was diffused also in other hospital settings.



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