

Computerizing the prescription dispensing process

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- Dispensing refers to the process of preparing and giving medicine to a named person on the basis of a prescription.
- It involves the correct interpretation and labeling of medicine for use by the patient.

Proper dispensing helps in avoiding:

- Patient mistakes
- Avoiding drug related problems
- Avoiding miscommunication

The Dispensing Process

- Many different regulatory agencies have described the process with different steps.
- The six-step process published by the World Health Organization is one of the most accepted processes.
- Each step involves several tasks.

Step One: Receive and Validate

- As soon as a prescription is received, pharmacist needs to validate the information.
- Confirm the patient's name and personal information to be matched with the prescription
- Many families often use the same pharmacy and could easily have two or more patients with the exact same name.
- Pharmacist should also make sure that the prescription is not outdated.
- Wherever applicable, pharmacist should prohibit prescriptions after a certain number of days from issue based on the drug to be dispensed. Ex: Antibiotics, Sedatives, Antipsychotics

Step Two: Understanding the Prescription

- Once prescription is validated, pharmacist needs to ensure the contents of the prescription and understand exactly what it says.
- Sometimes be difficult if the prescriber has poor handwriting or if there are several abbreviations.
- Pharmacist also need to check that the prescribed dosage is fairly typical for the type of medication and for the patient's age and sex.
- If any difficulties are faced when reading the prescription or if the dosage is unusual, pharmacist should call the prescriber and ask them to clarify.
- Even if the prescription arrives electronically, you should still check the dosage and look at the patient's other medications to identify drug interaction issues.
- Verbal orders should only be taken in emergencies.

Step Three: Label and Prepare the Medication

- A great way to avoid errors is to create the label for the medication as soon as the information is validated and clarified.
- Next, medication needs to be selected from the stock on the shelves.
- Pharmacist has to take the bottle with the label and should recheck whether proper label is created for the medication and dosage.
- Pharmacist has to compare the prescription and the medication label twice to be absolutely sure whether the right drug is taken or not.

- Also, pharmacist needs to check whether the stock supply is not expired.
- If the medicine is a liquid, it needs to be poured into a clean container.
- If the medication is a capsule or tablet, pharmacist has to count the number properly with the help of a counting device or by hand, wearing gloves.
- Pharmacist should never touch a medication with bare skin.

Step Four: Make a final check

- At this point, the dispensed preparation should be checked against the prescription and against the stock containers used.
- Even though, this step can be done as a self-check, it is better to get a final check done by another staff member/ Pharmacist.
 - Final check should include reading, interpreting the prescription.
 - Pharmacist should check for the appropriateness of doses, checking for drug interactions, checking the labels and finally countersigning the prescription.

Step Five: Record action taken

- Records of issues to patients are essential in an efficiently run dispensary. Such records can be used to verify stocks used in dispensing and they will be required if a need arises to trace any problems with medicines issued to patients.
- Few methods used to keep a record of medicines dispensed are:
 - Retention of prescription with dispensers signature
 - Documenting a copy of prescription in a file
 - Documenting the dispensed information in a record book

Step Six: Issue medicine to the patient with clear instructions and advice

- Medicine should be given to the patient or representative with clear instructions and advise.
- Verbal explanation as well as explanation along with the label is very important
- The following information should be given clearly:
 - Dose
 - Frequency
 - Route of administration
 - When the medicine has to be taken (with food / without food/
Can it be taken with alcohol)
 - How to take the medicine (Chewed, swallowed whole,
applied, etc)
 - How to store the medicine (Room tempterature, Refrigerator)

Step Six....

- Wherever possible, efforts must be made by the pharmacist to confirm that the patient understood the instructions and advice.
- If possible, ask the recipient to repeat the instructions.
- Every patient must be treated with respect.
- Confidentiality and privacy of the patient should be given the prime importance.

Computerizing the dispensing process

Automation of the dispensing process in community pharmacy is not new.

Computer systems for pharmacy management have been in the market for many years, and almost all community pharmacies now use computers to manage the prescription procession.

Usage of computers in the Community Pharmacy:

- Providing a receipt for the patient
- Record of transaction of money
- Ordering low quantity of products via electronic transitions
- Generation of multiple analysis for day, week, month for number of prescription handles and amount of cash
- Estimation of profits and financial rational analysis
- Printing of billing and payment details
- Inventory control purpose

Benefits of Computerization in prescription dispensing process...

- **Step-1:**

- Computerization can help in validating the prescriptions.
- People with same or similar names can be avoided by receiving the drugs
- Computerization can help in avoiding the dispensing the outdated prescriptions

- **Step-2:**

- Computerization helps in understanding the prescription properly
- Computerized prescriptions will avoid all ambiguity arising during the dispensing process

Benefits of Computerization in prescription dispensing process...

- **Step-3:**

- Computerization can help in preparing the label effectively
- Time taken to prepare the label will save lot of time for Pharmacist
- Computerization can help in electronic counting of medicines and electronic dispensing of liquids from large containers through suitable software.

- **Step-4:**

- Final checking can be done electronically through computerization of dispensing process
- Computerization will help in documenting who prepared and who validated the prescription

Benefits of Computerization in prescription dispensing process...

- **Step-5:**

- Computerization can help in storage of prescription information within the database of the pharmacy
- Computerization can help in storing patient's vital information required for documentation and audit by regulatory authorities.

- **Step-6:**

- Computerization can help in spending more time with the patient for giving clear instructions
- Computer generated leaflets can help in maintaining confidentiality/ privacy of the patient.

Important points to remember during Prescription dispensing procedure (WHO):

- Ensure that the prescription has the name and signature of the prescriber and the stamp of the health centre.
- Ensure that the prescription is dated and has the name of the patient.
- If the prescription has not been written in a known (local) health centre, the prescriber of the centre should endorse it.
- Avoid dispensing without a prescription or from an unauthorized prescriber.

- Check the name of the prescribed drug against that of the container.
- Check the expiration date on the container.
- Calculate the total cost of the drug to be dispensed on the basis of the prescription where applicable.
- Inform the patient about the cost of the drug.
- Issue a receipt for all payments.
- Hand over the dispensed drug

THANK YOU