

# Errors in Prescription & Steps to avoid Dispensing Errors



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## 1. Abbreviation

In most of the prescriptions abbreviated terms are used by the prescriber that leads to major errors during interpretation by the pharmacists.

E.g. ‘SSKI’ is the abbreviated term of ‘**Saturated Solution of Potassium Iodide**’. It is preferable to avoid these types of misleading abbreviations.

## 2. Name of the drugs

A name of some drugs (especially the brand names) either looks or sounds alike. So any error in the name of a drug will lead to major danger to the patient.

E.g. Althrocin – Eltroxin, Acidin – Apidin etc.

### 3. Strength of the preparation

Drugs are available in the market in various strengths. So a drug must not be dispensed if the strength is not written in the prescription.

E.g. Paracetamol tablet 500mg should not be dispensed when no strength is mentioned or not dispensed same drug in 650mg in the prescription.

## 4. Dosage form of the drug prescribed

Many drugs are available in more than one dosage forms like, liquids, tablets, injections or suppositories. The dosage form intended for the patient must be mentioned in the prescription to reduce hesitation.

(E.g.- If doctors prescribed tablet for adult not to dispense liquids)

## 5. Dose

- If unusually high or low dose is mentioned in the prescription then it must be consulted with the prescriber. Some time a sustained release (SR) dosage form is prescribed thrice or more times daily.
- Actually SR dosage forms should be given once or twice a day, because it was designed to deliver the drug more than 8hrs

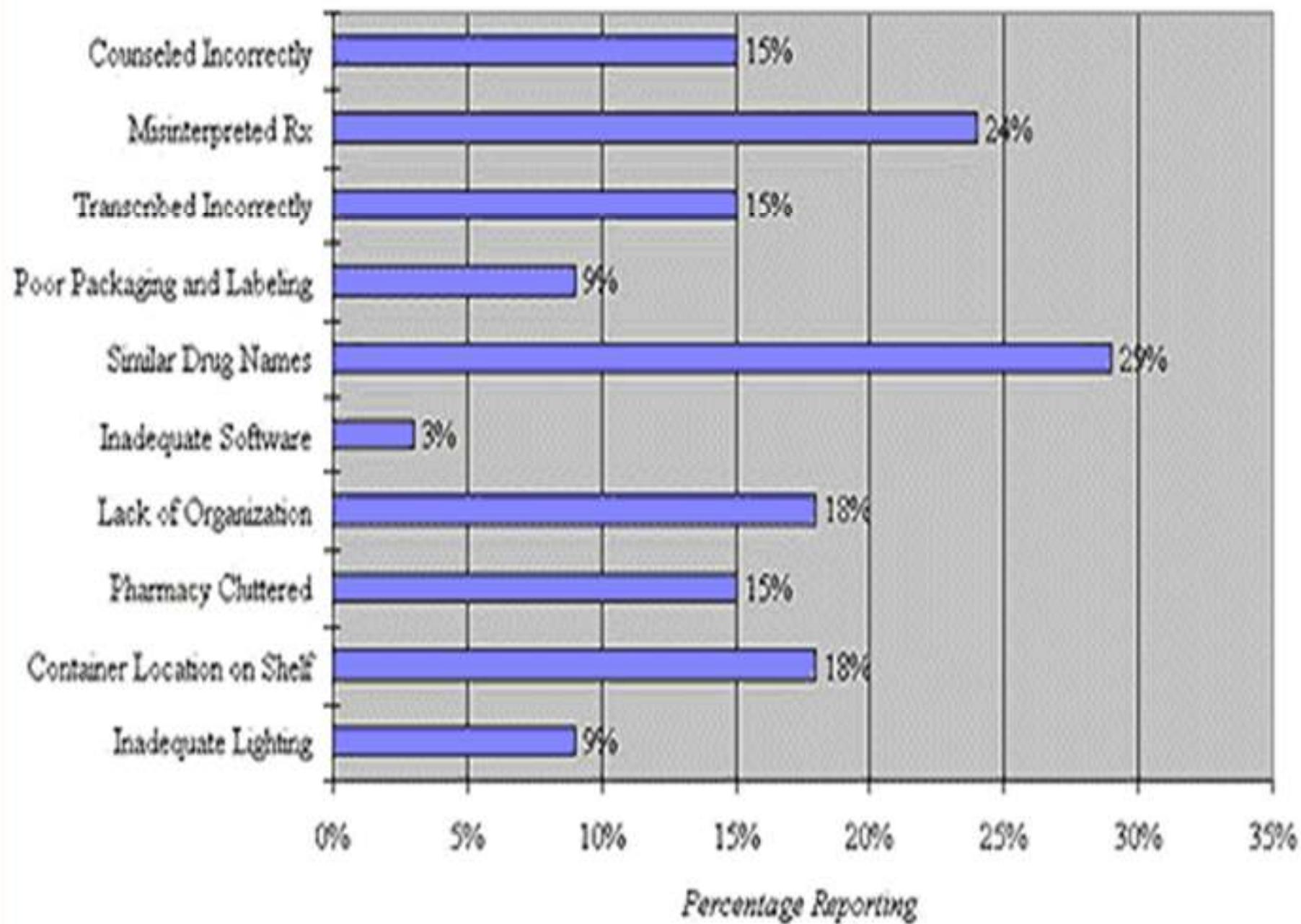
## 6. Instructions to the patient

- Sometimes the instruction for a certain preparation is either omitted or mentioned partially.
- The route of administration should be mentioned clearly.
- The manner of taking or applying medicine should be mentioned clearly.

## 7. Incompatibilities

- It is essential to check that there is no incompatibility in the prescription. If more than two medicines are prescribed then it is the duty of the pharmacist to see whether their interactions will produce any harm to the patient or not.
- Certain drug has interactions with food. The pharmacist has to advise the patient about it.

E.g., Tetracycline should not be taken with milk or antacid because milk suppress the activity of drug.



# Dispensing Errors:

Common Causes for Work environment

1. Workload
2. Distractions
3. Work area
4. Computerized Prescribing Errors
5. Dosage errors
6. Poor labelling
7. Poor patient counselling

## 1.Way of Improving Workload

1. Ensure adequate staffing levels
2. Eliminate dispensing time limits
  - Examples of limiting workload
    1. Dispense  $\leq 150$  prescriptions per pharmacist per day
    2. Require rest breaks every 2–3 hours
    3. Brief warm-up period before restarting work tasks
    4. Require 30-minute meal breaks

## **2. Combating Distractions**

1. Phones -Fax machines, auto refill, voice mail, priority processing, trained support personnel
2. Prohibit distractions during critical prescription-filling functions
3. Centralized filling operations
4. Train support personnel to answer the telephone

## **3. Dispensing Errors in the Work Area**

1. Clutter (return used containers immediately)
  - Ensure adequate space
  - Store products with label facing forward
  - Choose high-use items on the basis of safety as well as convenience, use original containers
  - Telephone placement
2. Poor designing of equipment's
3. Lighting
4. Heat, humidity
5. Noise (TV, radio)

### **3. Dispensing Errors in the Work Area**

- Labels on bins(box) and shelves
  - Failure mode: bin label may decrease chance that the actual product label will be checked when selected from bin; using bar codes will decrease chance of error
- Separated by route of administration (external/internal/injectable, etc.)
- Use auxiliary labels for externals
  - Amoxicillin oral suspension for ear infection thought by parents to be drops administered in child's ear
- Review published safety alerts for look-alike/ sound-alike drugs and frequent dispensing errors

### **4. Computerized Prescribing Errors**

- Computerized prescriber order entry (CPOE) improves communication and reduces some types of errors
- However, this technology may have its own pitfalls:
  - Lower case L may look like the numeral 1
  - Letter O may look like the numeral 0 (zero)
  - Letter Z and the numeral 2 may be misread
  - Wrong patient or wrong drug chosen from list

## **5. Dispensing errors in Dosage**

- Mathematical errors and decimal point misplacement are common causes of errors, especially in conversions between micrograms and milligrams
- Oral liquid medications can be dispensed improperly because of misunderstandings with reading and labeling of oral syringes or use of such devices by parents of pediatric patients

## **6. Dispensing Errors Caused by Poor Labeling**

- Pharmacy computer-generated labeling and production of medication administration records should be optimized
- Non essential information should be excluded from labels and reports
- Samples may be poorly labeled

## **7. Dispensing Errors Caused by Poor Patient Education**

- Failure to adequately educate patients
- Lack of pharmacist involvement in direct patient education
- Failure to provide patients with understandable written instructions
- Lack of involving patients in check systems
- Not listening to patients when therapy is questioned or concerns are expressed
- Counseling Patients

Up to 83% of dispensing errors can be discovered during patient counseling and corrected before the patient leaves the pharmacy

### **➤ Good Patient Education**

- Inform patients of drug names, purpose, dose, side effects, and management methods
- Suggest readings for patient
- Inform patient about right to ask questions and expect answers
- Listen to what patient is saying and provide follow-up

# Steps to Minimise Dispensing Errors

1. Lock up or separate drugs that could cause disastrous errors
2. Develop and implement meticulous procedures for drug storage (Like arrangement of drugs in Alphabetic orders)
3. Reduce distractions, design a safe dispensing environment, and maintain optimum workflow
4. Use reminders such as labels and computer notes to prevent mix-ups between look-alike and sound-alike drug names
5. Keep the original prescription order, label, and medication container together throughout the dispensing process
6. Compare the contents of the medication container with the information on the prescription
7. Enter the drug's identification code (e.g., National Drug Code [NDC] number) into the computer and on the prescription label
8. Perform a final check on the prescription, the prescription label, and manufacturer's container; when possible, use automation (e.g., bar coding)
9. Perform a final check on the contents of prescription containers
10. Provide patient counseling to improve patient counselling