Fighting Medication Error Related to Confirmation Bias

At the Saudi Vigilance system, we often receive reports of medication errors that occur when the physician order levothyroxine but the pharmacist dispense levofloxacin! Another similar story of a pharmacist dispensing prednisone 5 mg instead of perindopril 5 mg!

Stories like these are common in hospital settings and all is a perfect example of what is called a **Confirmation Bias.**

Confirmation bias occurs when individuals select out what is familiar to them or what they expect to see, rather than what is there.

How can confirmation bias lead to a medication error?

Usually, the similarity of labels and packages, as well as a look-alike or sound-alike drug names, lead and increase the potential for selection and verification errors related to confirmation bias. Many errors often occur with healthcare providers due to familiarity with drug names rather than ones they have never come across or have seen only rarely.

How to reduce confirmation bias in your hospital? *SFDA recommends seven ways to prevent confirmation bias*

1. Separate medications with look-alike labels and packaging from each other on the shelves to avoid errors.
2. Add auxiliary labels with different colors on the outer packages of the look-alike products to minimize medication errors.
3. Use signal words that attract attention. The American National Standards Institute (ANSI) recommends using:

➔ **Caution** for hazards that *might* cause minor injury

➔ **Warning** for hazards that *might* cause serious injury

➔ **Danger** for hazards that *will* cause serious injury

Remember: Use only one signal word per warning to avoid confusion

4. Advise prescribers to include the indication of each medication on the prescriptions.
5. Use tall man letters in the parts of the names that are different (e.g., **aMILoride, amLODIPine**). Click here for ISMP List of Look-Alike Drug Names with Recommended Tall Man Letters.
6. Encourage healthcare professionals to be aware of drug names that look and sound alike. Click here for ISMP's List of Confused Drug Names.
7. Independent double-checking to reduce the risk of confirmation bias that may occur if the same person prepares and checks the medication.

Recommendations Reference: ISMP and FDA.