



By
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Each year, medication errors account for more than 80,000 deaths, 770,000 injuries, at a cost of \$2 billion, and malpractice awards in excess of \$660,000 for each serious outcome. It is a national health crisis that has gripped the attention of the physicians, the public, and the politicians.

Cases in point

A patient was prescribed 20 U of insulin. Instead the patient receives 200 units, as 20U was read as 200, resulting in patient's death.

A patient develops severe bleeding from a commonly prescribed blood thinner warfarin that was given four times a day instead of once daily, as the abbreviation *q.d* (which stands for once daily) was misinterpreted as *qid* (which stands for four times daily). Here the error lies with the doctor, the pharmacists, and the nurse who administered the medicine. This error could have been detected at any level, if one person had utilized the knowledge that warfarin is given once daily and not four times a day.

A child is connected to a pain medicine pump after surgery for broken bones. In a rush, the

nurse dials the adult dose for the morphine. In a few hours the child becomes very lethargic, gasping for air. If the mother had not woken up in the middle of the night, the child could have suffered serious damage from severe respiratory depression and hypotension.

Medication Error Causes

Medication errors can result from:

- Illegible Prescriptions
- Transcription of orders
- Dispensing wrong dose, frequency, or medicine
- Administering wrong medicine by the nurse
- Selection of wrong patient
- Failure to check for allergies
- Interaction with other medicines
- Stress
- Overwork
- Lack of communication
- Wrong route of administration (IV instead of oral)
- Failure to monitor side effects
- Distractive interruptions.

Patients on water pills need close monitoring of electrolytes. Certain drugs are harmful to the kidneys (contrast agent, anti-inflammatory agents like motrin and others) and patients receiving such drugs need close observation of their renal function. Patients with kidney failure also have trouble eliminating certain drugs and hence the dosages of such drugs may have to be adjusted according to the kidney function.

The same thing holds good for patients with liver or heart failure.

Drugs with very similar names

Serzone (nefazodone) for depression and Seroquel (quetiapine) for schizophrenia

Lamictal (lamotrigine) for epilepsy, Lamisil (terbinafine) for nail infections,

Ludiomil (maprotiline) for depression, and Lomotil (diphenoxylate) for diarrhea

Taxotere (docetaxel) and Taxol (paclitaxel), both for chemotherapy

Zantac (ranitidine) for heartburn, Zyrtec (cetirizine) for allergies, and Zyprexa (olanzapine) for mental conditions

Celebrex (celecoxib) for arthritis and Celexa (citalopram) for depression.

Prevention better than cure

Hospital's Role

Most hospital are taking aggressive proactive steps to eliminate certain abbreviation such as *q.d*, *qid*, *od*, *hs*, and others. They are requiring doctors to spells out dosages and frequencies to avoid confusion. For example, the thyroid hormones may be prescribed 100 mcg (microgram) or as 0.01 mg (milligram). Hospitals are incorporating very sophisticated software to detect any drug interactions and incompatibilities based on patient's allergies.

Pharmacist's Role

Pharmacists do intercept a majority of medication errors. One study reported that 66% of the errors were detected by the pharmacists. Yet, they cannot prevent all the medication errors, since the errors can occur long after the medicines leave the pharmacy department.

Physician's Role

Physicians are generally not very receptive to any behavior modifications in terms of writing legible prescriptions, unless they have been victim of malpractice suit resulting from such errors. If you are getting an unusual number of calls from the pharmacy for clarification of your prescriptions, then it is time to have your prescriptions on computer so that you can print them instead of handwriting. By doing so, you have a copy, the patient gets a copy, and the pharmacy calls reduce in number.

Your Role in Medication Errors Prevention

Make a list of all the diagnosis that pertains to you.

Record in a notebook every medicine you are receiving in the hospital or from a number of doctors that you visit.

Include all the supplements and over the counter medicines that you take regularly and also on occasions.

Chart the reasons for which your medicines are prescribed including the correct name, the dosage, the frequency, and the generic equivalents.

Make sure that the drugs you are get matches with your underlying medical condition(s). If it does not, do not accept that medicine until your physician explains why you need that medicine. Make a note of that reason.

Check with the nurse every time you receive a new medicine or unusual medicine.

Keep track of all your allergies as any new medicine you receive may interact with existing medicines and result in an adverse reaction.

Be aware of similar sounding names and pills that may look alike that may be mistakenly dispensed because of doctor's illegible handwriting.

Each time you visit your doctor, take all you medicines with you or have a complete list of all your medicines.

If you are on numerous medicines, put your daily medicines in a weekly prescription planner box (available at your drug stores) so there is less chance of overdose or missed doses.

Disclosure: The information provided here is for educational purpose only. Please consult with your physician for any medical advice.

Visit www.sugarlandheartcenter.com for a more comprehensive information on heart diseases.”

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