

Potential Drug Interactions Pertinent to iCare

Len V Hua PhD OD

Pacific University College of Optometry

Over 2 MILLION Serious ADRs Yearly

Cost \$136 BILLION yearly

2.8 BILLION outpatient Rx filled in 2000

Most drugs approved by FDA with average of 1500 patient exposures

<http://www.fda.gov/Safety/MedWatch/default.htm>

How to Prevent Drug Interactions?

A Good Medication History: AVOID Mistakes

Risk Rating

A and B monographs are of academic, but not clinical concern.

C, D, or X always require the user's attention.

Case # 1

A 55 yo woman presented with symptoms of a red, swollen and tender lid. Her medical history was remarkable for gout and also taking anticoagulant to prevent stroke. She had no known drug allergy.

How would you manage this patient? What ADRs should you be concerned?

- Amoxicillin & Allopurinol [C]
- Penicillins & Probenecid [C]
- Amoxicillin & Warfarin [C]

Case # 2

A 40yo male present with internal hordeolum with history of diabetes for which he takes metformin. He has no known drug allergy and no insurance. Would cephalexin (Keflex) be a good choice?

- Cephalexin & Metformin [C]

Macrolides: Azithromycin/Erythromycin

Do you know that macrolides can cause cardiac arrhythmia, also known as QTc-Prolonging agents?

What if your patients are taking digitalis for their heart condition? Are they safe with macrolides (erythromycin/azithromycin)? What about Statins and Macrolides?

- Macrolides & Digoxin [D]
- Macrolides & Warfarin [C]
- Macrolides & Statins [D]

Case # 3

A 20yo male presented for an eye exam because he can't see the blackboard and has watery and irritating eyes. He was taking meds for acne and epilepsy, but not sure about the name. He said he may have allergy to penicillins. He has simple myopia and severe MGD. Glass prescription was given and oral doxycycline was prescribed for MGD. What ADRs should you be concerned?

- Doxycycline and Anticonvulsants [D]
- Tetracyclines & Retinoic Acids [X]

What do you want to know before prescribing oral prednisone?

- Corticosteroids & Thiazide Diuretics [C]

- Corticosteroids & Warfarin [C]

Acyclovir and Valacyclovir

- Acyclovir & Zoster Vaccine [X]

Acetaminophen (Tylenol)

What is the maximum dosage of Tylenol recommended per day?

- Acetaminophen & Probenecid [D]
- Acetaminophen & Warfarin [C]

Salicylates (Aspirin, ibuprofen)

Should you recommend ibuprofen for pain in patients with hypertension; with diabetes?

- Salicylates & Warfarin [D]
- Salicylates & Sulfonylureas [C]

Tramadol (Ultram)

Tramadol has mu-opioid agonist activity and can be abused.

- Tramadol & SSRI [D]

References

<http://www.fda.gov/Safety/MedWatch/default.htm>

www.arizonacert.org (drug interactions)

www.drug-interactions.com (P450-mediated drug interactions)

www.torsades.org (drug-induced arrhythmia)

www.penncert.org (antibiotics)

www.dcri.duke.edu/research/fields/certs.html (cardiovascular therapeutics)

www.sph.unc.edu/healthoutcomes/certs/index.htm (therapeutics in pediatrics)