

Case studies on DRUG -DRUG INTERACTION:

Case #1

A 65 yo F comes in for f/u

- She has a long hx of hypothyroidism and has been recently dx with osteopenia.
- Current Med list: – Centrum Silver 1 day – Levothyroxine 88mcg 1 day – Ca+D 600/400 1 bid – Alendronate 35mg 1 week

Recent labs

- 6/20/14: TSH 2 mIU/L FT4 1.4 ng/dL
- Today labs: TSH 9.5mIU/L and FT4 0.4 ng/dL
- She reports to be compliant with taking her medications and takes all of them in the morning 30 min before breakfast.
- What is the drug interaction?

Levothyroxine Drug interactions

Levothyroxine should be taken on an empty stomach: 1 hour before or 2 hrs after a meal for best absorption

- Calcium and iron will reduce the absorption of levothyroxine
- Pt has 2 different sources of Calcium

Pt should continue taking all of her medications, but Calcium should be administered 4hrs apart from Synthroid.

Case #2

You are seeing your 70 yr pt for follow up

- Hx of HTN, DM type 2 and hyperlipidemia.
- His BP over the past several visits has been above goal at 150-160/90s
- Currently taking: – Metformin 1000mg bid – Glipizide 10mg bid – Losartan 100mg day – Simvastatin 40mg day
- As you are entering Amlodipine 5mg in the EMR, a pop up for a severe drug interaction appears.
- What should you do next?

Simvastatin/Amlodipine Interaction

Simvastatin is metabolized by CYP 450 3A4 pathway. Amlodipine inhibits 3A4 which could lead to myopathy

- Dose related: 10 mg of amlodipine with 80 mg simvastatin resulted in a 77% increase in exposure to simvastatin compared to simvastatin alone.
- Close monitoring vs. going with a different class of anti-hypertensive

Case # 3

70yo F is here for follow up

- Hx of HTN, Anxiety, Insomnia and Chronic back pain
- Today her main complaint is insomnia. She has tried implementing some sleep hygiene tips w/o success

Her current med list: – Lisinopril 20mg day – HCTZ 12.5mg qday – Citalopram 10mg day – Tramadol 50mg tid PRN pain – Ibuprofen 400mg tid

- You want to prescribe Trazodone 50mg qhs
- A drug interaction alert pops up

5HT Syndrome

A syndrome of clinical findings ranging from benign to lethal. Observed in all age groups

- Anxiety, agitation restlessness, diaphoresis, tachycardia, HTN, hyperthermia, tremor, muscle rigidity

Symptoms present w/in 6-24hrs or change in dose or initiation of a new drug

- This pt is taking Celexa and Tramadol already
- Trazodone is added