



2017 SNPhA/Kroger Clinical Skills National Competition: Las Vegas, NV: DIVISION I

Name: Nour Barryer

Date: 7/28/17

CC: “My Mother has diarrhea and it is becoming too difficult to manage her medications”

HPI: NB is a 67 year old frail African American female patient who presents to your Kroger pharmacy on 7/28/2017, with her daughter Latoya, wanting suggestions for diarrhea she has experienced over the past 2 days. You have a strong relationship with NB as she only fills prescriptions at your pharmacy. The patient has a history of depleting her medications; however to ensure the patient continues her medication therapy, you contacted the insurance for overrides. She is very thankful for your service. In her hand she holds Gas-X and dramamine. Latoya explains she will need a refill on her Aricept and Fosamax and wants to know if there are any interactions with the current medications or OTC medications. She also remembers her aunt took ginkgo biloba for memory and wants your recommendation on this. Her daughter expresses her concern of taking care of her 2 month old daughter and her 67 year old mother at the same time, especially since her mother is scheduled for a trabeculectomy in one week. You are happy she has come to the pharmacy today because she is due for her comprehensive medication review (CMR). You ask them if they have 30 minutes to an hour to review the medications and they gladly accept. During the interview you jot down a few things: she has been nauseous for the last week, she claims to take Aricept every morning with her breakfast, Latoya doesn't seem to notice the alzheimers getting better or worse, she seems more depressed than usual, she stores the lantus and timolol in a ziplock bag in the refrigerator. Diarrhea x 2 days has occurred with cramping but no blood. Lately, her throat has been bothering her.

PMH:

Alzheimers (4 years)

Osteoporosis (6 years)

Diabetes (8 years)

Depression (5 years)

Glaucoma (2 years)

Vaccines: childhood series complete, Td (19 years ago), PCV13 (age 64), **shingles**

MEDICATIONS:

Metformin 850mg	1T PO QDay	#30 tablets
Lantus	16 units SQ QHS	#10ml vial
Sertraline 50mg	1T PO QDay	#30 tablets
Donepezil 5mg	1T PO QHS (last filled 7/14/17)	#30 tablets
Alendronate 70mg	1T QW (last filled 6/30/17)	#4 tablets
Multivitamin	1T QDay	#30 tablets
Timolol 0.5% solution	1gtt BID	#5ml
Hydrochlorthiazide 12.5mg	1C PO QDay (profiled)	#90 capsules
Latanoprost 0.005% solution	1gtt OU QPM (d/c'd)	#2.5ml
BD Insulin needles 3/10ml 1'' 28G	UAD to inject lantus	#100 ct

SH:

Tobacco: non smoker

Alcohol: none

Physical Activity: wheelchair bound (minimal)

Widow

FH:

Mother: Diabetes (died at age 82)

Father: Depression (died at 73)

Allergies: eggs, thimerosal

Labs can be found [HERE](#)

	7/22		
Temp (C)	37		
Weight (lbs)	118		
Height	5'2"		
BP	97/86, 93/82		
SCr	1.1		
HR	88		
Ca	8.7		
HDL	47		
TG	120		
LDL	101		
		7/1	3/31/17
A1C	8.1	8.2	
Blood Glucose Log			
	7/22	7/21	
Time			
Fasting	176	175	
Postprandial (lunch)	145	143	
Postprandial (dinner)	149	158	
Mini Mental Examination Status			
	6/1/17	Score: 18	
	4/20/17	Score: 22	

DIVISION II ANSWER KEY

1. Acute Diarrhea (less than 14 days) uncontrolled
 - a. Rehydration
 - i. Diluted fruit juices and flavored soft drinks along with saltine crackers and broths or soups
 - ii. Low calorie gatorade or pedialyte
 - b. Loperamide Initial: 4 mg, followed by 2 mg after each loose stool (maximum: 16 mg/day) for no more than 10 days
 - i. Discontinue promptly if constipation, abdominal pain, abdominal distension, blood in stool, or ileus develop
 - ii. Could cause QT prolongation, assess patient for palpitations, syncope, seizures
2. Alzheimer's; uncontrolled
 - a. Donepezil is contributory to nausea: take at bedtime to decrease adverse effect
 - i. Higher doses cause this side effect. Evidence that patient is taken more than prescribed
 - b. Assist patient in getting a medication adherence box so she can stop mistakenly taking too much medication
 - c. Consider adding memantine if the disease is advancing to moderate/severe
 - i. Mini mental examination status (MMES) most recent score is 18 meaning mild disease. The score has worsened, but not enough clinically or diagnostically to add dual medication
 - d. Ginkgo biloba is used for memory but little known efficacy to help with alzheimers. There is an interaction with sertraline (antiplatelet properties) and ginkgo. Suggest against use; risk outweighs benefit
 - e. Donepezil is acetylcholinesterase inhibitor that can diminish the therapeutic effect of anticholinergic dramamine, advise against buying dramamine
3. Osteoporosis; controlled
 - a. Multivitamins/Minerals (with AE, No Iron) may decrease the serum concentration of Bisphosphonate Derivatives. Specifically, polyvalent cation-containing multivitamins may decrease the absorption of orally-administered bisphosphonate derivatives. Avoid administration of polyvalent cation-containing multivitamins within 30 minutes of fosamax
 - b. Assess any falling and give suggestions to prevent
 - c. Take alendronate on empty stomach with full glass of water, 30 minutes before first food, drink, or drugs of the day. Do not lie down for at least 30 minutes after taking, this could be the reason for her throat hurting
 - d. Swallow tablet whole, do not chew, break, or crush
4. Depression; uncontrolled

- a. Sertraline may need to be increased (max 200mg daily) once diarrheal condition has ceased
 - b. Increase slowly, dose increments of 25mg to 50mg once weekly
 - c. Once increased to 75mg of sertraline daily, counsel that increase of dose will take about a week to show any effect
5. Vaccinations; uncontrolled
- a. Yearly influenza vaccination recommended
 - b. Tdap is highly suggested due to close proximity to 2 month old granddaughter
 - c. Zostavax is recommended after age 60
 - d. PPSV23 is recommended after age 65 and at least 1 year after the PCV13
 - e. Patient's allergies are not contraindicated with these vaccines
6. Glaucoma; uncontrolled
- a. Timolol should not be stored in the refrigerator unlike the discontinued eye drop, latanoprost
 - b. Refill a new bottle of timolol and ask for patient to discard refrigerated bottle
 - c. *Patient interview; patient asks about if they should continue using eyedrops before the surgery; yes, unless otherwise stated by the physician*
 - d. Post surgery expect to go home with an antibiotic drop and anti inflammatory steroid
7. Hypertension; controlled
- a. Recommend discontinuation of HCTZ; consider deactivating from patients profile and contact physician for another option in case there is an increase in blood pressure
 - i. Recommend amlodipine
 - b. HCTZ interacts with diabetes medications; may diminish the therapeutic effect of antidiabetic agents. HCTZ can have benefits in osteoporosis due to retained calcium.
 - c. Interactions with multivitamins
 - i. Multivitamins/Fluoride (with ADE) may enhance the hypercalcemic effect of Thiazide and Thiazide-Like Diuretics
8. Diabetes; uncontrolled
- a. A1C is above goal; 7 - 7.5
 - b. FBG > 180 mg/dL: add 20% of TDD; 3 units. Titrate every 3 days until goal FBG <130 mg/dL is reached (hypoglycemia history)
 - c. To decrease complications and to help daughter manage medications, consider switching lantus vials to lantus solostar. *During the interview; latoya will admit that her brother is a IVDA and steals needles, so sometimes they run out.*
 - d. Metformin should be taken with food, patient has been taking for years so she is probably not experiencing these side effects
 - i. Consider maximizing the dose of metformin
 - e. *Patient has tried glipizide before, but had hypoglycemic events frequently*

- f. Patient is 40-75 years old, no clinical ASCVD, but diabetes warrants a moderate intensity statin: atorvastatin 10-20mg, rosuvastatin 5-10mg, simvastatin 20-40mg, pravastatin 40-80mg, lovastatin 40mg
 - g. No grapefruit
9. OTC products
- a. Dramamine; interactions can be found with hydrochlorothiazide, sertraline, and aricept
 - i. Nausea should be rectified once donepezil is taken correctly
 - ii. Beers criteria
 - b. Ginkgo biloba- interacts with sertraline and can cause bleeding
 - c. Loperamide- safe to take for anti diarrheal
 - d. Gas-x is the wrong product for the patient