



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

Name: Kamran Johns

Date: 7/28/17

CC: I think I'm dehydrated, how much water do I need to drink each day?

HPI: KJ is a 41 year-old latino/hispanic male who presents on 7/28/2017 to Kroger pharmacy to drop off a prescription and pick up "whatever medications are ready". KJ is a faithful customer at your pharmacy and has been struggling with his weight for years. He is now ready to explore new things to jumpstart his weight loss journey. KJ explains to you that he's trying to drink more water to be healthier and lighten his "dark urine". He asks you which over the counter medication is best for muscle cramps. For the past week and a half, KJ reports his pain as a "5 out of 10" (10 being extremely painful) on both sides of his legs and arms. He adds that his hot pad at home does provide sufficient relief, but wants to take something by mouth to get rid of the pain completely. As you start checking his medication profile, KJ leans in and whispers that he needs to know where he can find the "no-baby pill." KJ then explains that he is in a new relationship and really thinks she is the woman of his dreams. Many of his friends thinks he is crazy for falling for this type of woman. At the pharmacy counter you notice he has capsaicin cream, mineral oil, a pack of chewing gum, and headphones in his shopping cart. You ask KJ if the mineral oil is for him and he states that either Dr. Oz or Dr. Phil suggested mineral oil as homeopathic option for weight loss.

PMH:

Hypertension (4 years)

Hypercholesterolemia (9 months)

Obesity (8 years)

GERD (2 years)

CURRENT MEDICATIONS:

Truvada	1T PO QDay	(New Rx)	#30
Protonix 40 mg	1T PO QAM		#30
Procardia XL 60 mg	1T PO QDay		#30

Ibuprofen 200 mg	1T PO Q4-6H PRN HA	#180
Simvastatin 40mg	1T PO QHS	#30

SH:

Tobacco: Smokes ½ ppd

(+) Illicit drug use

Alcohol: Socially on weekends

Physical Activity: 3 times monthly

Dating

FH:

Mother: Dyslipidemia (deceased)

Father: Hypertension, Depression, Obesity

Allergies: sulfa (hives 2011)

Labs found here: LABS

Urinalysis (7/26)

Color: Dark Brown

Transparency: Cloudy

Specific Gravity 1.007

pH: 4.9

Protein: 166 mg/d

Glucose: Positive

Nitrites: Negative

	Date 7/20/17	4/11/17
Temp (C)	36.2	36.1
Weight (lbs)	215	222
Height	5' 6"	5' 6"
BP (mm/hg)	154/91	157/96
SCr (mg/dL) Creatinine: 0.8-1.3 mg/dL	1.6	1
HR	110	119
K (mEq/L) Potassium: 3.5-5 mmol/L	3.5	3.6
Ca (mg/dL) 8.5-10.2	8.9	9
HDL (mg/dL) >50	54	52
TG (mg/dL) <150	149	162
LDL (mg/dL) <130	147	168
CK (IU/L) Creatine kinase: 25-200 U/L	5,800	4,210
AST (units/L) 5-30 U/L	52	36
ALT (units/L) 5-30 U/L	42	40
TSH (mU/L) 0.4-4.0	1.2	1.5
A1C <6	5.8	--
CD4 (cell/MicroL) 500-1,500.	860	890
Viral Load (copies/mL)	undetectable	undetectable
CrCL	--- pending	
BMI	--- pending	

DIVISION I ANSWER KEY

1. Rhabdomyolysis
 - a. Uncontrolled
 - b. Dark urine, elevated urinary protein, CK elevated, AST elevated
 - c. Pain
 - i. Capsaicin cream can be applied as a thin film to affected area three to four times daily. To be used only as needed and temporarily.
 - ii. Ibuprofen should be discontinued. NSAIDS may enhance the nephrotoxic effect of Tenofovir Products.
 - iii. Acetaminophen can not be used in this patient due to acute liver impairment.
 - d. Acute kidney injury prevention
 - i. Assess patient for volume status
 - ii. Crystalloid solutions are preferred for initial therapy if needed, patient would have to be admitted to hospital
 - iii. AKI due to rhabdomyolysis may require sodium bicarbonate.
 - e. Statin should be discontinued temporarily. Refrain from alcohol which could worsen rhabdomyolysis. Check CPK levels in 2-3 weeks and restart statin at lower dose. Pravastatin or fluvastatin have less intrinsic muscle toxicity than other statins. Do not use in combination with pantoprazole. Refrain from grapefruit juice and other CYP3A4 inhibitors.
 - f. H2Blocker prn symptoms
2. Dyslipidemia
 - a. Uncontrolled
 - i. TGs < 200; controlled
 - ii. LDL > 130 ; uncontrolled
 - iii. HDL > 40; controlled
 - b. Statin should be discontinued temporarily due to rhabdomyolysis
 - i. Check CPK levels in 2-3 weeks and restart statin at lower dose. Pravastatin or fluvastatin have less intrinsic muscle toxicity than other statins.
 - ii. Do not use in combination with pantoprazole. Refrain from grapefruit juice and other CYP3A4 inhibitors.
 - c. Diet and exercise should be optimized, LDL is high, but pt can control without pharmacotherapy. LDL should be reassessed before restarting statin therapy.
 - i. 150 minutes per week. Avoid more than two days of inactivity.
Cardio/resistance aerobic exercise to increase metabolic rate.
3. Weight loss/ Obesity

- a. Uncontrolled
 - b. Mineral oil is indicated for constipation, not weight loss. Deter patient from purchasing if he is not experiencing constipation
 - c. Reputable resources (not Dr. Oz or Dr. Phil) should be used for weight loss. Suggest obtaining a nutritionist and fitness trainer
 - d. BMI 34.7 (obese), class I
 - i. Recommended for waist circumference to be measured for abdominal obesity or central adiposity
 - ii. Recommended for patient to receive risk factor assessment
 - iii. Risk factors: Cardiovascular risks, sleep apnea, nonalcoholic fatty liver disease, symptomatic osteoarthritis, and other obesity related comorbidities
 - e. Physical activity should be increased to 150 minutes weekly; gradually increase current regimen to meet this goal
 - f. Diet- Plate method. Less calories should be consumed than burned on a daily basis
 - g. Consider medication therapy if diet and exercise fails
 - h. Kroger / The Little Clinic sponsored weight loss / dietician services
4. Pain
- a. Patient requested an oral pain medication
 - b. Oral medication not recommended
 - c. Non-Pharmacologic/topical recommendation
 - i. Capcasin
 - ii. Rest
5. Prediabetes
- a. Uncontrolled
 - i. Age <60 years and/or BMI ≥ 35 kg/m², with A1C of 5.7 to 6.4 percent
 - ii. Sedentary life style
 - b. Confirmatory test can be recommended: 2-hour post-load glucose on the 75 g OGTT 140 to 199 mg/dL
 - c. Metformin is the drug of choice for prediabetes to prevent diabetes
 - i. Initial: 850 mg once daily; Target: 850 mg twice daily
6. HIV Prophylaxis
- a. Truvada (emtricitabine 200 mg/tenofovir 300 mg) one tablet once daily. Not a treatment of HIV per labs
 - b. This is not treatment, combination treatment with other antiretroviral agents are not warranted at this time
 - c. Condoms highly recommended for additional prevention of contraction of disease
 - d. Monitoring:

- i. HIV test every 2-3 months
 - ii. Pregnancy test for partner each office visit
 - iii. BUN and serum creatinine (prior to initiation, 3 months after initiation, then every 6 months);
 - iv. Testing for HBV (prior to initiation) and STIs (prior to initiation, then at least every 6 months, even if asymptomatic)
7. Dehydration
 - a. Drink 8 glasses of 8 ounces of water each day
 - b. Eat plenty of fruits/vegetables
 - c. Dark urine was most likely due to rhabdomyolysis
8. Contraception
 - a. Plan B One Step should be taken by the female by mouth within 72 hours of (but as soon as possible) unprotected sexual intercourse.
 - i. If vomiting occurs within 2 hours, consider repeating dose
 - b. Use two forms of contraception; condoms and birth control for partner
9. Hypertension
 - a. Uncontrolled
 - b. Nifedipine can be increased to 90mg ER daily to optimize dose
 - c. Assess patient for peripheral edema
10. GERD
 - a. Controlled
 - b. Protonix (pantoprazole) may increase the serum concentration of HMG-CoA Reductase Inhibitors. The statin should be discontinued to resolve rhabdomyolysis.
 - c. Pantoprazole should be discontinued and non pharmacologic therapy should be initiated for GERD
 - i. No NSAIDs
 - ii. No spicy/acidic foods
 - iii. No smoking or alcohol consumption
 - iv. Elevate head of bed with large blocks
11. Smoking Cessation
 - a. Smoking increases risk for ASCVD
 - b. Use the 5 A approach to effectively address tobacco use: ask, advise, assess, assist, and arrange
 - c. Counsel on smoking cessation programs (1-800-quit-now). Discuss toxicities of nicotine/tobacco
 - d. Consider nicotine replacement therapy
 - i. Gum/Lozenges, patch. Patient chews gum already, so maybe a better choice over lozenges.
12. Preventative care measures

- a. Vaccines
 - i. Tdap (q10 years, HIV)
 - ii. Pneumovax (Smoker)
 - iii. Influenza
 - iv. Hep B. (partner is HIV +)