



Samford CSC Case

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SNPhA/Kroger Clinical Skills Competition
Birmingham, AL

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2017 Region I & II Patient Counseling Competition Case | Birmingham, AL

Case Date: March 17, 2017

Patient Background

You and your partner are the pharmacists on duty today at Kroger pharmacy. It has been a busy day; you still have 60 prescriptions to check in the queue and one technician went home sick. Your intern is at drop off finishing up with a customer. Berma Haem is a 45 y/o caucasian overweight female that gets her prescriptions filled at your pharmacy. She always asks questions at the register because she has a hard time understanding her medications. Today, she presents a little sunburned and irritable. She waits in line for you to acknowledge her. In her hands she holds a 100-count bottle of ibuprofen and a new prescription. Your partner pulls up BH profile and see's the history below. You call her to the counter. She verifies her address and DOB, and then explains that Dr. Potter was unhappy with her diabetes and sent an electronic medication to the pharmacy. She was diagnosed with diabetes 5 months ago. She has come to pick up the prescription. [This is where you will begin your counseling session].

Medication Profile

Medication List	Quantity	Last Fill	Status	Cost	Prescriber
Lantus 100units/mL Inject 50units IM QHS	20mL	Fourth Fill 3/2/17	Picked up 3/2		Potter
BD 1/2 mL 6 MM (15/64") X 31 G Needle. Use to inject insulin QHS	100ct	Fourth Fill 3/12/17	Ready to pickup	\$5	Potter
Soliqua 100/33 unit-mcg/mL Inject 30 units SQ QHS	5 (3mL) syringes	First Fill	Ready to pickup	\$35	Potter
BD Mini 5 MM (3/16") 31G Pen Needle. Use to inject Soliqua QHS	100ct	First Fill	Ready to pickup	\$5	Potter
Atorvastatin 40mg 1QHS	30	Fifth Fill 3/1/17	Picked up 3/2		Smith
Metformin 1000mg 1BID	60	Fifth Fill 3/1/17	Picked up 3/3		Potter

Patient Characteristics

Occupation: Bank teller

Alcohol: 3 beers weekly

Smoking: (-)

Family: Married, no children

Diet: Frequents restaurants, pizza, ice cream, hamburgers

Attitude: Positive

Exercise: Walks twice weekly

Illicit Drug Use: None

PMH: Diabetes mellitus type 2, hyperlipidemia

Allergies: Sulfa

Vaccination History: Up to date

A1c: 10.2 (2/20/17)

Clinical Counseling Pearls

- Counsel on prescribed medications and any added OTCs/prescriptions
- Advise patient on any potential drug-drug and/or drug-food interactions
- Assess patient's willingness to stop drinking alcohol
- Counsel patient on medication adherence

Answer Key

Soliqua / Pen Needles

- New insulin combination medication to **replace** lantus
- As an **adjunct to diet and exercise** to improve glycemic control in adults with type 2 diabetes mellitus **inadequately controlled on basal insulin** (<60 units daily) or lixisenatide
 - Diet: recommend home cooked meals, low carbohydrates, refrain from greasy foods
 - Exercise: recommend at least 150minutes per week
- Comes as a pen for ease of use vs the vial
- Prescribed because lantus higher doses weren't working adequately to decrease A1c
- Inform patient they should test blood sugar at a minimum every morning and document. Goal FBG 80 to 130 mg/dL
 - Titrate the dosage upwards or downwards by 2 to 4 units **every week** until the desired fasting plasma glucose is achieved. *Her doctor wants her to be responsible for titrating, and to reach out to the pharmacist for any concerns.*
- Take off the pen needle after each shot. Do not store this device with the needle on it. Do not share medication with anyone
- Used pens do not need refrigeration, good for 14 days after opened
- Discuss hypoglycemia, offer glucose tablets (affected by alcohol use). *The patient experienced hypoglycemia once last month, not normally.*
- A1c goal <6.5 or <7.0 Student should provide rationale behind goal A1c (ADA/AACE)
 - More or less stringent targets may be appropriate for individual patients if achieved without significant hypoglycemia or adverse events. *Patient doesn't have any adverse effects.*
 - <6.5 goal for patients
 - Short diabetes duration
 - Long life expectancy
 - Type 2 diabetes treated with lifestyle or metformin only
 - No significant CVD/vascular complications
 - Less stringent target (<8.0%)
 - Severe hypoglycemia history
 - Limited life expectancy
 - Advanced microvascular or macrovascular complications
 - Extensive comorbidities
 - Long-term diabetes in whom general A1C targets are difficult to attain
- Lantus was listed as given IM. Ensure that patient is fully aware that Soliqua is given SubQ.

Lantus/Insulin Syringes

- Lantus not working for patient. A1c still elevated
- **Adherence:** patient gets confused with medications, clearly state to discontinue the lantus
- Do not allow patient to pick up the insulin syringes: will decrease confusion and save money
 - States both lantus and syringes can be deactivated

Ibuprofen/Sunburn

- Ibuprofen is a good choice for sunburn. Can continue with the NSAIDs as directed until the burn feels better. *Patient is getting better because she heard it is good for his sunburn and he gets body aches occasionally.* No interaction to current medication. Interaction with alcohol consumption.

- 1 percent over-the-counter cortisone cream as directed for a few days to help calm redness and swelling
- Direct patient to take ibuprofen with food every time
- Maximum dose 1200mg ibuprofen OTC
- Sunburn prevention: sunscreen
 - Sun protection factor (SPF) is the ratio of UVB only radiation that may be tolerated while wearing sunscreen to the amount of **sun tolerated without sunscreen**
 - Example: A person who can be in the sun for 20 minutes without burning will be able to spend 200 minutes in the sun with SPF 10
 - (20 minutes X SPF 10 = 200 minutes)
 - Should wear sunscreen year-round with an SPF of at least **15**, all day every day. Reapply every 2 hours. Apply 15 minutes before exposure.

Alcohol

- Alcohol is a depressant if consumed in high amounts. Other side effects from alcohol should be discussed; **Short term:** vision, coordination, slower reaction time, slurred speech, slower brain activity, alcohol poisoning (large amounts). **Long term:** disrupts normal brain development, liver damage and cirrhosis of liver, brain cell death, stomach and intestinal ulcers, increased blood pressure, heart disease, heart attack, stroke, lower levels of iron and vitamin B (anemia), death.
- Can interact with ibuprofen
- Can interact with metformin
- Contributes to hypoglycemia

Zolpidem

- The prescription the patient presents with is ZOLPIDEM. Filling this prescription is fine.
- Discuss sleep hygiene
 - Should sleep 7-9 hours each day
 - Refrain from using computer or watching TV right before bed
 - Keep the same sleep schedule (even on weekends)
 - If you cannot fall asleep, get up and do a light activity until you feel sleepy. Try to read, write in a journal, or take deep and relaxing breaths
 - Use a comfortable pillow and mattress
 - Avoid daytime naps
 - Avoid caffeine closer to bedtime
- Consider calling physician for 5mg dose in female
- Should be taken immediately before bedtime
- Express rx is for short term use and as needed

Blood pressure Prevention / Renal Protection

- Lifestyle management: Diet- DASH low sodium, fresh fruits / vegetables, low fat, etc. Fluid hydration
- Routine BP screening at all provider appointments
- Yearly renal screening. (elevated risk of nephropathy in patients w/ chronic diabetes)

Interactions

- Duplicate therapy lantus and soliqua
- Metformin/Soliqua Antidiabetic Agents may enhance the hypoglycemic effect of Hypoglycemia-Associated Agents. C
- Alcohol (Ethyl) may enhance the adverse/toxic effect of metformin. Specifically, alcohol may potentiate the risk of lactic acidosis. X

Soliqua || Counseling Points

Medication	Soliqua (glargine and lixisenatide)
Drug Class	Antidiabetic agent / (long acting insulin and GLP-1 receptor agonist)
Indication	Diabetes mellitus type 2
Dose	Initial: 30 units (insulin glargine 30 units/lixisenatide 10 mcg) once daily.
Maximum Daily Dose	60 units/ day [60 units of insulin and 20mcg of lixisenatide]
Route	Subcutaneous
Frequency	Daily
Duration	Indefinitely or until A1c controlled
Missed Dose	If a dose is missed, resume with the next scheduled dose. Do not double dose or increase the dose to make up for the missed dose
Storage	Prior to initial use, store pens refrigerated at 2°C to 8°C (36°F to 46°F). Do not freeze (discard if frozen). Protect from light. After initial use, store at room temperature <30°C (86°F) and use within 14 days . Replace the pen cap after each use, do not store with needle attached.
Contraindications	Hypersensitivity to insulin glargine, lixisenatide, or any component of the formulation; during episodes of hypoglycemia
Common/Major Side Effects	<i>Common:</i> hypoglycemia, diarrhea, headache, nausea, injection site reaction, stuffy nose <i>Serious:</i> hypersensitivity, kidney problems, heart failure

Warnings:

- Pancreatitis, a history of alcoholism, or stones in your gallbladder (cholelithiasis) are medical problems that may make you more likely to get pancreatitis. Stop taking SOLIQUA 100/33 and call your healthcare provider right away if you have pain in your stomach area (abdomen) that is severe, and will not go away.
- If you are pregnant or plan to become pregnant inform physician because it is not known if SOLIQUA 100/33 will harm your unborn baby.

Education:

- Solution should appear clear and colorless; do not use if particulate matter or coloration is seen. Do not split the dose. Do not mix or dilute with any other insulin or solution
- Hypoglycemic s/s: headache, dizziness, drowsiness, confusion, weakness, irritability, hunger, sweating, fast heartbeat, feeling jittery
- Inject into the abdomen, thigh, or upper arm. Rotate injection sites for each dose; do not use the same site for each injection to avoid lipodystrophy. Administer within one hour before the first meal of the day, preferably the same meal each day.

Zolpidem || Counseling Points

Medication	Ambien (zolpidem)
Drug Class	Hypnotic
Indication	Insomnia
Dose	10mg
Maximum Daily Dose	10mg
Route	Oral
Frequency	1QHS
Duration	7-10 days (recommended no more than 1 month)
Missed Dose	If you will not be able to get a full night's sleep (at least 7 hours) after taking the missed dose, skip the missed dose and go back to your normal time. Do not take 2 doses at the same time or extra doses. Do not take more than 1 dose of this drug in the same day.
Storage	Room temperature, protect from moisture
Contraindications	Hypersensitivity to zolpidem or any component of the formulation
Common/Major Side Effects	<i>Common:</i> headache, drowsiness, dizziness, nausea, <i>Serious:</i>

Warnings:

- CNS depressant effects: Impairs alertness and motor coordination.
- Severe anaphylactic/anaphylactoid reactions: Angioedema and anaphylaxis have been reported
- “Sleep-driving” and other complex behaviors while not fully awake. Risk increases with dose and use with other CNS depressants and alcohol
- Depression: Worsening of depression or suicidal thinking may occur.
- Respiratory Depression: Consider this risk before prescribing in patient with compromised respiratory function
- Hepatic Impairment: Avoid AMBIEN use in patients with severe hepatic impairment
- Withdrawal effects: Symptoms may occur with rapid dose reduction or discontinuation
- Severe Injuries: Drowsiness may lead to fall including severe injuries

Education:

- Take on empty stomach
- If still having trouble sleeping after 7-10 days, call doctor
- Combine with sleep hygiene

Metformin || Counseling Points

Medication	Glucophage (metformin)
Drug Class	Biguanide
Indication	Diabetes mellitus type 2
Dose	1000mg
Maximum Daily Dose	2550mg
Route	Oral
Frequency	1 tablet BID
Duration	Indefinite or until A1c controlled with diet and lifestyle changes
Missed Dose	Take a missed dose as soon as you think about it. If it is close to the time for your next dose, skip the missed dose and go back to your normal time. Do not take 2 doses at the same time or extra doses.
Storage	Room temperature, dry place
Contraindications	Hypersensitivity to metformin or any component of the formulation; renal disease or renal dysfunction (eGFR <30 mL/minute/1.73 m ² [FDA safety communication 2016]) or abnormal creatinine clearance from any cause, including shock, acute myocardial infarction, or septicemia; acute or chronic metabolic acidosis with or without coma (including diabetic ketoacidosis).
Common/Major Side Effects	<i>Common:</i> diarrhea, flatulence, nausea, vomiting, headache, weakness <i>Serious:</i> lactic acidosis

Warnings:

- Rarely, metformin may cause an acid health problem in the blood (lactic acidosis). The risk of lactic acidosis is higher in people with kidney problems and in people who take certain other drugs like topiramate.

Education:

- Take with food to decrease GI adverse effects. If still experiencing these effects the extended release formulation can be received from physician. Patient becomes tolerant to GI effects overtime.
- Will interact with alcohol, avoid alcohol

Atorvastatin || Counseling points

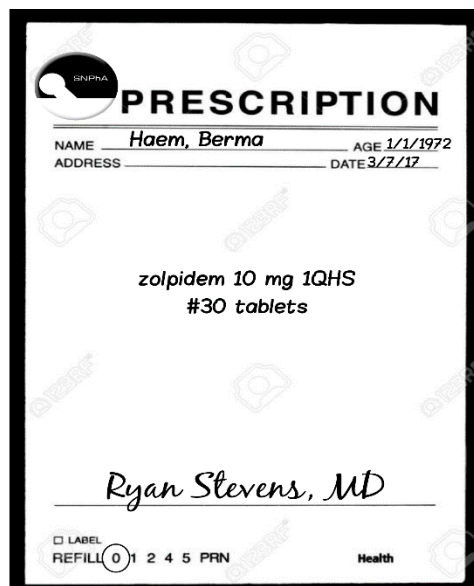
Medication	Lipitor (atorvastatin)
Drug Class	HMG-CoA Reductase Inhibitor
Indication	Hyperlipidemia
Dose	40mg
Maximum Daily Dose	80mg
Route	Oral
Frequency	1 tablet Qday
Duration	Indefinite or until cholesterol controlled with diet and lifestyle changes
Missed Dose	Take a missed dose as soon as you think about it and go back to your normal time. If it has been 12 hours or more since the missed dose, skip the missed dose and go back to your normal time. Do not take 2 doses at the same time or extra doses.
Storage	Room temperature, dry place
Contraindications	Hypersensitivity to atorvastatin or any component of the formulation; active liver disease; unexplained persistent elevations of serum transaminases; pregnancy or women who may become pregnant; breast-feeding
Common/Major Side Effects	<i>Common:</i> Diarrhea, arthralgia, nausea, dyspepsia, myalgia, <i>Serious:</i> hemorrhagic stroke

Warnings:

- May increase blood sugar, continue checking blood sugar regularly
- Avoid or limit drinking alcohol to less than 3 drinks a week (less than 1 drink per day for women, less than 2 drinks per day for men). Drinking too much alcohol may raise your chance of liver disease.

Education:

- Take with or without food
- Avoid grapefruit juice or grapefruit
- This drug may cause muscle pain, tenderness, or weakness



Thank you!

