



Region III, IV, V Conference



SNPhA/Kroger Clinical Skills Competition

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Coordinator

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PATIENT CASE

Robert Johnson is a 34-year-old African American male with a past medical history of type-1 diabetes mellitus and intermittent asthma. His diabetes is controlled but he admits that he forgets to check his blood sugar regularly. He was laid-off from his job at an accounting firm three months ago. He had worked there for the past 8 years and misses his colleagues and friends. He feels a lot of stress from his current financial instability.

He was recently diagnosed with major depressive disorder and came to Kroger Pharmacy to pick up his new medication. Mr. Johnson mentioned that his doctor told him to pick up some OTC medications to help with his cold. He is trying to decide what to take for his nasal congestion and cough and would appreciate a recommendation from the pharmacist.

Medication Profile

NEW Escitalopram (Lexapro) 10 mg by mouth once daily
Insulin glargine (Lantus) 18 units injected under the skin every morning
Insulin aspart (Novolog) 6 units injected under the skin before meals
Albuterol (ProAir) 90 mcg MDI inhale 1-2 puffs by mouth q4-6h as needed for shortness of breath

No known allergies on profile
Immunization record is up-to-date

Clinical Counseling Pearls

- Counsel on new prescription(s)
- Advise patient on potential drug-drug and/or drug-food interactions
- Recommend OTC medication(s)
- Counsel patient on diabetes monitoring
- Recommend lifestyle modifications

IMPORTANT NOTE

The information provided in this answer key is detailed for completeness. Students are expected to use professional judgement to educate the patient with the most pertinent counseling points within the allotted time (5 minutes).

Students are evaluated on professional knowledge, clinical pearls, communication skills, and patient interaction during the counseling session.

ANSWER KEY

New Prescriptions

Escitalopram

- Take one tablet by mouth daily
 - Recommend same time of day to help with adherence
- This drug may cause nausea, diarrhea, headache, difficulty sleeping, nervousness, agitation, or sexual dysfunction
 - Nausea, diarrhea, headache - Take medication at night
 - Difficulty sleeping (Insomnia) - Take medication in morning
 - Sexual dysfunction - Common with this type of medication. Onset is typically four weeks after starting highest tolerated dose. Duration of side effect is typically four weeks from highest tolerated dose. Advise patient that side effect may resolve in 8 weeks from onset.
- Assess symptoms: Symptom Remission/Response
 - First few days: Decreased anxiety, improvement in sleep, improvement in appetite
 - 1-3 weeks: Increased activity, sex, drive, self-care, and memory; thinking and movements normalize; sleeping and eating patterns normalize
 - 2-4 weeks: Relief of depressed mood; less hopeless/helpless, thoughts of suicide subside
- This drug may cause increased suicidal ideation during the first two weeks of therapy
 - Call your doctor if you have thoughts of suicide or worsening sign and symptoms of depression
- An adequate trial of the medication is 6-12 weeks and the maximum tolerated dose
- Do not suddenly discontinue this medication
 - Symptoms of serotonin withdrawal are anxiety, irritability, sadness, insomnia, headache, nausea, or electric shock sensations (similar to depression symptoms)
- Consult with the pharmacist before taking any over-the-counter cough, cold, and allergy medications
- If a dose is missed, take it as soon as possible. If it's closer to the time of the next dose, skip the missed dose and return to your regular dosing schedule. Do not double doses.

Drug Interactions

Possible Drug-Drug Interactions

- Escitalopram and dextromethorphan (Delsym) (**moderate; Risk Rating D**) - Selective Serotonin Reuptake Inhibitors may enhance the serotonergic effect of Dextromethorphan. Selective Serotonin Reuptake Inhibitors may increase the serum concentration of Dextromethorphan.
 - Consider therapy modification
 - Monitor patient to signs of serotonin syndrome which includes the following:

- Gastrointestinal distress
 - Neuromuscular changes – clonus, tremor, hyperreflexia
 - Altered mental status and/or agitation
 - Autonomic instability – hypertension, tachycardia, diaphoresis
 - Hyperthermia
- *NOTE: SSRIs other than fluoxetine and paroxetine may be safer, particularly at lower doses, due to lesser CYP2D6 inhibition, but the possibility of a more direct serotonergic interaction remains, and caution is still advised.*
- Concomitant use of SSRI with NSAID, antiplatelet, and anticoagulant (**moderate; Risk Rating D**)- Increased risk of bleeding secondary to the decreased platelet aggregation effects of SSRIs
 - Monitor for signs and symptoms of bleeding

OTC Medication(s)

Cough & Cold

Exclusions for Self-Care

- Fever > 101.5°F
- Chest pain
- Shortness of breath
- Worsening of symptoms or symptoms development during self-treatment
- Concurrent chronic cardiopulmonary diseases such as CHF, COPD, or asthma
 - Note: Robert reports asthma as well controlled and therefore should not limit OTC use
- AIDS or chronic immunosuppressant therapy
- Frail patient of advanced age
- Infants < 9 month of age

Robert Johnson does not have any exclusions for self-care. It is appropriate for the pharmacist to provide OTC therapy recommendation.

Cough

Pharmacist should ideally use SCHOLAR-MAC or similar technique to obtain full background on patient's current condition.

- SCHOLAR-MAC: Symptoms, characteristics, history, onset, location, aggravating factors, remitting factors - medications, allergies, conditions

Ask if the patient is experiencing a wet (productive) or dry cough. Robert Johnson is currently experiencing a wet cough, with non-purulent discharge that has lasted for one day.

Recommendations:

- Guaifenesin (Mucinex) - Expectorant that stimulates mucus relief
 - 200-400mg q4h (2.4g/d)
 - SE: N/V/D, HA, rash, dizziness, drowsiness
 - Clinical Pearls: Only FDA approved expectorant. Productive cough. Onset 30min, duration 4-6h.
- Humidifier - Heat and moisturization used to break up mucus to make it easier to relieve

- Drink lots of water - Thins mucus

Nasal Congestion

Pharmacist should ideally use SCHOLAR-MAC to obtain full background on patient's current condition. He reports having a stuffy and runny nose for the last two days.

Recommendations:

- Nonpharmacological
 - Vicks VapoRub
 - BreathRight nasal strips
 - Saline nasal spray
- Systemic Decongestants
 - Phenylephrine, pseudoephedrine
 - Should ask if the patient has a history of high blood pressure before giving a recommendation
- Intranasal Decongestants
 - Ephedrine, levomethamphetamine, naphazoline, phenylephrine, tetrahydrozoline, oxymetazoline
 - Overuse can lead to rebound congestion; use limited to 3-5 days

Diabetes Blood Sugar Monitoring

- It is recommended that patients check their blood sugar prior to meals and snacks, at bedtime, occasionally post-prandially, prior to exercise when they suspect hypoglycemia, and after treating hypoglycemia until WNL (follow rule of 15).
- For Mr. Johnson, it should be advised that he checks his fasting BG in the morning, and at least check his BG before each meal
 - It is great if he can do more, but this is a good starting goal
- He should keep a log of his fasting BG values and any other values that were not normal including the date & time
- Mention that his BG goals for fasting is 80-130mg/dl and post-prandial <180mg/dl
- Assess the patient's technique awareness
 - Council on the proper blood sugar testing technique
- Mention that since he is currently sick, his blood sugar fluctuates more and that he should test more often for the duration of his illness
- Since Mr. Johnson has type-1 DM, it is appropriate to evaluate if he would be a strong candidate for CGM
 - Useful for assessing therapy effectiveness
 - Decreases need for SMBG and prevent having to prick fingers
 - Useful tool for hypoglycemia unawareness
- Good opportunity to evaluate if Mr. Johnson is getting his HbA1c tested
 - Recommend every three months if not controlled or twice a year if controlled

Lifestyle Modifications

- Exercise
 - 150 minutes per week of moderate intensity exercise
- Nutrition support
 - Carb counting
- Smoking avoidance/cessation
- Alcohol moderation
 - Alcohol can impact stability of glucose/insulin
- Reduce stress
 - Get more sleep and try to have a consistent sleep schedule and/or bedtime routine to wind down.
 - Use relaxation techniques like meditation, yoga, or deep breathing exercises. These can be incorporated throughout the day and on-the-go while traveling for work.
 - Incorporating exercise into the daily routine can be beneficial. She may consider taking a walk in the morning or during lunch breaks.
 - Be more intentional about taking personal time to rejuvenate and refocus.
- Asthma
 - Avoid triggers

Additional Counseling: Old Prescriptions

Insulin Glargine

- Inject 18 units under the skin every morning
- Explain that this is long-acting insulin that is used to control fasting blood glucose
- Do not suddenly discontinue this drug
- Side effects include hypertension, diarrhea, or injection site pain/irritation
- Precaution with hypoglycemia
 - Signs of hypoglycemia include sweating, hunger, shakiness, confusion, increased urination
- If a dose is missed, take it as soon as possible.
- Ensure you use a new pen needle for each injection

Insulin aspart

- Inject 6 units under the skin before meals.
- If patients skips a meal, do not use
- Explain this is short-acting insulin that controls spikes in blood sugar after meals
- Side effects may include weight gain, shot site irritation/pain, or a headache
- Precaution with hypoglycemia
 - Signs of hypoglycemia include sweating, hunger, shakiness, confusion, increased urination
- If a dose is missed, check blood sugar, if elevated take dose and continue to monitor

Albuterol

- Take 1-2 puffs by mouth q4-6h PRN shortness of breath
- Explain to the patient that this is a rescue medication
- If patient experiences exercise-induced bronchospasms, they can take 15 minutes before exercise and PRN
- Side effects may include excitement, nervousness, and tremor
- Pharmacist should assess inhaler technique at each visit
 - Shake before use
 - If first time using, or extended time between use, prime by spraying until mist is visible
 - Exhale air from lungs
 - Place mouthpiece to lips creating tight seal
 - Sitting/standing straight, press actuator and simultaneously breath in deep and slowly
 - Hold breath for 10-15 seconds, or as long as possible
 - Exhale
 - *Note: Depending on technique ability and reported effectiveness, may be appropriate to recommend spacer use*
- If no relief with inhaler use and shortness of breath continues, go to emergency room or call 911