

Polypharmacy Project

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N322 Introduction to Pharmacology

Lakeview College of Nursing

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Date 4/27/20

Scenario 3

Patient: 95 year old female

Social history: Lives in a long term care facility for the past 10 years. Family visits frequently. One daughter visits daily helps with personal care.

Medical history: Dementia, Depression, Osteoarthritis, HTN, Glaucoma & Fibromyalgia

More confusion has set in over the past six months. Depression has become more chronic and pain is interfering in daily activities.

Allergies: None

Medications:

Cardizem 240mg Daily PO

Furosemide 40mg Daily PO

Fluoxetine 20mg BID PO

Lyrica 100mg BID PO

Exelon 1.5mg Daily PO

POLYPHARMACY

3

Latanoprost 1 drop to each eye daily

Ketorolac 20mg 4 to 6 hours PRN for pain (new increased pain) PO

Tylenol 500mg 4 to 6 hours for pain PRN PO

Calcium with Vitamin D 1200mg PO Daily

Multi Vitamin PO Daily

Drug #1	Drug Name (Generic): diltiazem
Drug Class: Therapeutic class: antihypertensive	Drug Name (Trade): Cardizem
How is the medication taken: (include dose, route, and frequency)	240 mg PO daily
Specific Directions not included above:	Capsules and ER tablets should be taken whole. (Jones & Bartlett, 2019). Medication should not be taken if systolic BP is <90 mm Hg. (Jones & Bartlett, 2019).
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	<u>Ketorolac</u> : NSAIDs may antagonize the antihypertensive effects of diltiazem. (Jones & Bartlett, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle interactions noted.
Does any of the client's past medical history	No contraindications noted in this client.

contradict the use of this medication?	
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	The client has a history of hypertension. Diltiazem is indicated for the control of hypertension. (Jones & Bartlett, 2019).
What would you teach the client about taking this medication?	Teaching would depend on the extent of the client's dementia and confusion. If they were able to recall, I would educate them to perform diligent oral hygiene and make them aware of the risk for gingival bleeding, hyperplasia, and gingivitis. (Jones & Bartlett, 2019). Furthermore, I would tell them that they should report any chest pain, difficulty breathing, dizziness, fainting, irregular heartbeat, rash, or swollen ankles. (Jones & Bartlett, 2019).
How much would medication cost per month if paying out of pocket?	\$24.69 (Rozone, 2020).

Drug #2	Drug Name (Generic): furosemide
Drug Class: Therapeutic Class: diuretic	Drug Name (Trade): Lasix
How is the medication taken: (include dose, route, and frequency)	40 mg PO daily.
Specific Directions not included above:	Take this medication several hours before bedtime to prevent sleep being interrupted by need to urinate. (Jones & Bartlett, 2019). Change positions slowly to minimize the risk of orthostatic hypotension. (Jones & Bartlett, 2019). Take with food or milk to help with GI distress. (Jones & Bartlett, 2019).

Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	<u>Ketorolac</u> : NSAIDs may decrease diuresis. (Jones & Bartlett, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	None identified.
Does any of the client's past medical history contradict the use of this medication?	No specific contraindications are noted. However, elderly patients are at increased risk for hypotension and electrolyte imbalances when taking furosemide. (Jones & Bartlett, 2019). Using the drug may still be appropriate, but these effects should be monitored for.
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	The client has a history of hypertension. Controlling hypertension is an indication for the use of furosemide. (Jones & Bartlett, 2019).
What would you teach the client about taking this	Teaching would depend on the extent of the client's dementia and confusion. If they were

medication?	able to recall, I would advise them to change positions slowly to mitigate potential orthostatic hypotension, explain that the nursing staff will weigh monitor their weight and blood pressure, that they will need to have labs drawn periodically to monitor for electrolyte imbalances, that they should avoid extra salt in their diet, and that they should report any hearing loss, vertigo, or a sense of fullness in their ears. (Jones & Bartlett, 2019).
How much would medication cost per month if paying out of pocket?	\$13.91 (Rozone, 2020).

Drug #3	Drug Name (Generic): fluoxetine
Drug Class: Therapeutic Class: anti-depressant	Drug Name (Trade): Prozac
How is the medication taken: (include dose, route, and frequency)	20 mg PO BID.
Specific Directions not included above:	Take in the morning to prevent interference with sleep (Frandsen & Pennington, 2018) Take with food to avoid GI-upset (Frandsen & Pennington, 2018) Use sugar free gum or hard candies to counteract dry mouth (Frandsen & Pennington, 2018)
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	<u>Ketorolac</u> : Increased anticoagulant activity and increased risk for bleeding with NSAIDs. (Jones & Bartlett, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No interactions noted.
Does any of the client's past medical history contradict the use of this medication?	No strict contraindication noted. However, in elderly clients and in those who take multiple medications, reduced dose or frequency is recommended. (Jones & Bartlett, 2019).
What is the indication for use of this medication based on the clients past medical history? (If unable	Client has a diagnosis of depression. Fluoxetine is indicated for the treatment of depression. (Jones & Bartlett, 2019).

to determine an indication based on past medical history, please list potential indications for use of the medication in general)	
What would you teach the client about taking this medication?	Teaching would depend on the extent of the client's dementia and confusion. Depending on their capacity for information retention, I would advise them of the risk of serotonin syndrome with this medication and teach them about its signs and symptoms. (Jones & Bartlett, 2019). I would also make them aware that this drug has CNS effects and that they should avoid hazardous activities until those effects are known. (Jones & Bartlett, 2019). If the patient had just recently started the medication, I would advise them that symptomatic relief may take several weeks. (Frandsen & Pennington, 2018)
How much would medication cost per month if paying out of pocket?	\$18.10 (Rozone, 2020).

Drug #4	Drug Name (Generic): pregabalin
Drug Class: Therapeutic Class: analgesic	Drug Name (Trade): Lyrica
How is the medication taken: (include dose, route, and frequency)	100 mg PO BID
Specific Directions not included above:	Swallow extended release tablets whole; do not chew, crush, or split them. (Jones & Bartlett, 2019). Medication should not be stopped abruptly. (Jones & Bartlett, 2019).
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	No drug interactions noted. (Jones & Bartlett, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle interactions are noted in this client. (Jones & Bartlett, 2019).
Does any of the client's past medical history contradict the use of this medication?	No specific contraindications for this med are noted in this client. (Jones & Bartlett, 2019).

What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	The client has a diagnosis of fibromyalgia. Lyrica is indicated for the treatment of fibromyalgia. (Jones & Bartlett, 2019).
What would you teach the client about taking this medication?	Teaching would depend on the extent of the client's dementia and confusion. Depending on her ability to retain information, I would teach her to avoid hazardous activities until it is known how this medication effects her. I would also advise her to report any changes in vision, dizziness, coordination, muscle pain, weakness, tenderness, weight gain, or swelling in the extremities. (Prentice Hall Health, 2018).
How much would medication cost per month if paying out of pocket?	Brand name Lyrica is quoted at \$508.71. (Rozone, 2020) Generic pregabalin is quoted at \$31.32 (Rozone, 2020).

Drug #5 Drug Class: Cholinesterase inhibitors.	Drug Name (Generic): rivastigmine Drug Name (Trade): Exelon
How is the medication taken: (include dose, route, and frequency)	1.5 mg PO daily.
Specific Directions not included above:	This medication should be taken with food. (Prentice Hall Health, 2018). The drug should be withheld for several days and restarted at same or lower dose level after adverse effects subside if the client experiences significant anorexia, nausea, or vomiting. (Prentice Hall Health, 2018). This medication should be stored at or below 77 degrees Fahrenheit (Prentice Hall Health, 2018).
Does this medication interact with any other medication(s) on this list? (see rubric for further	No drug interactions are noted. (Jones & Bartlett, 2019)

instruction)	
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle interactions noted. (Jones & Bartlett, 2019).
Does any of the client's past medical history contradict the use of this medication?	No contraindications are noted. (Jones & Bartlett, 2019).
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	The client has a history of dementia. Rivastigmine is indicated for the treatment of dementia. (Jones & Bartlett, 2019).
What would you teach the client about taking this medication?	Appropriate teaching would depend on the extent of the client's dementia and confusion. If the client were able to retain the information, I would educate them that they should be weighed by nursing staff weekly, that they should report loss of appetite or vomiting, and that taking this medication may make them feel dizzy. (Prentice Hall Health, 2018).
How much would medication cost per month if paying out of pocket?	Pharmacist quote for this medication as prescribed was \$47.88. (Rozone, 2020). However, Mr. Rozone commented that the pharmacy recommendation for this medication is that it would be taken twice daily. If this were the case, the cost would be \$87.76 (Rozone, 2020).

Drug #6	Drug Name (Generic): latanoprost
Drug Class: Prostaglandin analog	Drug Name (Trade): Xalatan
How is the medication taken: (include dose, route, and frequency)	1 drop in affected eye daily.
Specific Directions not included above:	Contact lenses should be removed prior to administration and not put back in for 15 minutes following administration. (Prentice Hall Health, 2018). While administering, the tip of the dropper should not be allowed to touch the eye. (Prentice Hall Health, 2018). Drops should be

	refrigerated between 36 and 46 degrees Fahrenheit (Prentice Hall Health, 2018). Avoid exposing the drops to light (Prentice Hall Health, 2018).
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	No drug interactions noted. (Jones & Bartlett, 2018).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle interactions were noted. (Jones & Bartlett, 2018).
Does any of the client's past medical history contradict the use of this medication?	No contraindications to the use of this medication were noted. (Jones & Bartlett, 2018).
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	The client has a diagnosis of glaucoma. Glaucoma is an indication for the use of latanoprost. (Jones & Bartlett, 2018)
What would you teach the client about taking this medication?	Appropriate teaching would depend on the extent of the client's dementia and confusion. If they were able to retain the information, I would advise them that they may experience increased pigmentation of the iris and eyelid as well as additional growth of eyelashes on the

	treated eye and that if their eye color may darken (Prentice Hall Health, 2018).
How much would medication cost per month if paying out of pocket?	One bottle of latanoprost is quoted at \$20.02 (Rozone, 2020).

Drug #7	Drug Name (Generic): ketorolac
Drug Class: NSAID	Drug Name (Trade): Toradol
How is the medication taken: (include dose, route,	20 mg PO every 4 to 6 hours as needed.

and frequency)	
Specific Directions not included above:	This medication should not be given longer than 5 days, and should be taken with food to reduce GI symptoms. (Prentice Hall Health, 2018).
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	NSAIDs may antagonize the antihypertensive effects of diltiazem, may decrease diuresis with furosemide, and may increase the risk of adverse renal effects with acetaminophen. (Jones & Bartlett, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle interactions are noted. (Prentice Hall Health, 2018).
Does any of the client's past medical history contradict the use of this medication?	No strict contraindications are noted. However, the medication should be used cautiously in older adults. (Prentice Hall Health, 2018).
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	Client scenario provides that this client is experiencing pain. Presumably as a result of her osteoarthritis, fibromyalgia, or both. Ketorolac is indicated for the treatment of moderate to severe pain. (Jones & Bartlett, 2018).
What would you teach the client about taking this medication?	Appropriate teaching for this client would depend on the extent of her dementia and confusion. If she were able to retain the information, I would teach her that it should not be

	<p>taken for more than 5 consecutive days (Prentice Hall Health, 2018), that it should not be taken with aspirin, other salicylates, or other NSAIDs without consulting a physician (Prentice Hall Health, 2018), and that she should report any blood in her urine, bruising, itching, rash, swelling, or yellowing of the eyes (Prentice Hall Health, 2018). Furthermore, I would advise her to avoid hazardous activities until the drug’s effects on her are known and to be alert for bloody emesis, or black and tarry stools that could suggest a GI bleed. (Jones & Bartlett, 2019).</p>
<p>How much would medication cost per month if paying out of pocket?</p>	<p>Pharmacy price quote for this medication is \$22.80 for a 20 tablet supply (Rozone, 2020).</p>

<p>Drug #8</p> <p>Drug Class: Nonnarcotic Analgesic Antipyretic</p>	<p>Drug Name (Generic): Acetaminophen</p> <p>Drug Name (Trade): Tylenol</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>Dose-500mg Route-PO Frequency- 4 to 6 hours for pain PRN</p>
<p>Specific Directions not included above:</p>	<ul style="list-style-type: none"> -Acetaminophen should be taken with food to avoid GI upset (Frandsen & Pennington, 2018) -The recommended maximum daily dose is 4 grams for adults (Frandsen & Pennington, 2018) -Do not take this medication longer than 10 days

	(Frandsen & Pennington, 2018)
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	-None of patients medications interact with acetaminophen (Frandsen & Pennington, 2018)
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	-None of the patient lifestyle interactions interact with acetaminophen (Frandsen & Pennington, 2018) -The patient does not use any tobacco, alcohol, or drugs
Does any of the client's past medical history contradict the use of this medication?	-No interactions with the patients past medical history (Frandsen & Pennington, 2018)
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	-Pain (Frandsen & Pennington, 2018)
What would you teach the client about taking this medication?	-Do not exceed the recommended dosage and do not take any other medications containing acetaminophen (Frandsen & Pennington, 2018) -Inform the health care provider of the development of a rash or a fever (Frandsen & Pennington, 2018) -For better absorption, chew "chewable" tablets and do not swallow them whole (Frandsen & Pennington, 2018) -Acetylcysteine is the antidote for an acetaminophen overdose (Frandsen & Pennington, 2018)

How much would medication cost per month if paying out of pocket?	-\$10 (Rozone, 2020)

Drug #9	Drug Name (Generic): calcium citrate
Drug Class: Calcium and Vitamin D preparations	Drug Name (Trade): Cal-Citrate
How is the medication taken: (include dose, route, and frequency)	Dose- 1200mg Route- PO Frequency- Once daily
Specific Directions not included above:	-Administer oral preparations with or after meals to increase absorption (Frandsen & Pennington, 2018) -If used as an antacid, administer after a meal (Frandsen & Pennington, 2018)
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	-None of patients medications interact with calcium citrate (Frandsen & Pennington, 2018)
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	-None of the patient lifestyle interactions interact with calcium citrate (Frandsen & Pennington, 2018) -The patient does not use any tobacco, alcohol, or drugs

<p>Does any of the client's past medical history contradict the use of this medication?</p>	<p>-No interactions with the patients past medical history (Frandsen & Pennington, 2018)</p>
<p>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</p>	<p>-Used when the diet of calcium alone is not enough (Frandsen & Pennington, 2018)</p> <p>-Chronic Hypocalcemia (Frandsen & Pennington, 2018)</p> <p>-Decrease bone loss and fractures (Frandsen & Pennington, 2018)</p> <p>-antacid (Frandsen & Pennington, 2018)</p>
<p>What would you teach the client about taking this medication?</p>	<p>-Consume good sources of calcium in your diet (Example- Cheese, milk, and yogurt) (Frandsen & Pennington, 2018)</p> <p>-Avoid rhubarb, spinach, bran, and whole-grain cereals in the meal before taking calcium because these food interfere with calcium absorption (Frandsen & Pennington, 2018)</p> <p>-Take oral calcium 1-1.5 hours after meal if gastrointestinal upset occurs (Frandsen & Pennington, 2018)</p> <p>-Take with full glass of water (Frandsen & Pennington, 2018)</p> <p>-Report anorexia, nausea, vomiting, abdominal pain, dry</p>

	mouth, thirst, and polyuria (Frandsen & Pennington, 2018)
How much would medication cost per month if paying out of pocket?	OTC- \$10 (Rozone, 2020)

Drug #10	Drug Name (Generic): Multi Vitamin
Drug Class:	Drug Name (Trade): Berocca (Multum, 2019).
How is the medication taken: (include dose, route, and frequency)	Dose- Route- PO Frequency- Once daily
Specific Directions not included above:	-Take with a full glass of water (Multum, 2019).
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	-Calcium citrate: calcium makes it harder for your body to absorb the other ingredients in the multivitamin and an overdose in the amount of calcium in the body (Multum, 2019).
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	-None of the patient lifestyle interactions interact with multivitamin (Multum, 2019). -The patient does not use any tobacco, alcohol, or drugs (Multum, 2019).

Does any of the client's past medical history contradict the use of this medication?	-Can increase the risk of confusion and the patient has dementia so it can cause her to have even more confusion than normal (Multum, 2019).
What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)	-Provide vitamins to the patient that are not taken in through diet (Multum, 2019).
What would you teach the client about taking this medication?	<ul style="list-style-type: none"> -Avoid taking more than one multivitamin at a time (Multum, 2019). -Overdose of multivitamin can cause life-threatening side effects (Multum, 2019). -Do not take with milk or other dairy products (Multum, 2019). -Use regularly to get the most benefit (Multum, 2019). -Store at room temperature away from moisture and heat (Multum, 2019).
How much would medication cost per month if paying out of pocket?	OTC- \$10 (Rozone, 2020)

Is there anything about this medication regimen scenario that might indicate a potential difficulty in maintaining compliance with the orders as listed?

This client is suffering from dementia and has had increasing confusion over the last 6 months. Based on this scenario, the client is a resident of long-term care facility. It is likely the case that nursing staff is managing and administering her medications to her.

However, if they were not, her dementia and confusion would represent significant potential hurdles to self-management of her medications. To be more specific, she may have difficulty remembering which medications she should take, the times she should take them, or how much of the medication she should take. Furthermore, tasks like refilling medications at the pharmacy could be prohibitively difficult for this client to do on her own.

Is there anything about this medication regimen scenario that might assist the client in maintaining the medication regimen as ordered?

It is likely the case that nursing staff is managing and administering this client's medications for her. In a skilled care setting, nurse management of medications is standard, even when the client does not have cognitive impairment. In assisted living, while some clients do continue to manage their own medications, it is standard that their ability to do so is assessed by the nurse either prior to admission or on admission. Furthermore, this client has an involved family including a daughter that visits on a daily basis. It is the experience of this student that clients with dementia, especially those who are disoriented to location, person, or place, may refuse to comply with their medication regimen. Having a familiar family member present may ease anxiety and agitation stemming from the client's disorientation and increase the likelihood that they are comfortable taking medications.

What suggestions might you make to the prescriber and/or client (or questions you might ask the prescriber) to help this client scenario? (think about decreasing the potential for interaction(s) through medication reduction, other potential medications, diet changes, lifestyle changes, etc)

This client is suffering from worsening depression, confusion, and pain that interferes with the client's ability to participate in activities of daily living. While these problems do not occur in a vacuum and could well be interrelated – for instance, we should question if worsening depression is related to diminished capacity to participate in ADLs secondary to ineffective pain management – contemplating the problems individually is useful for the sake of clear communication with the provider and/or client.

Regarding their depression, I would discuss my concern with the provider that their fluoxetine, as prescribed, is not effectively controlling their condition and suggest a dose adjustment or ask the provider to consider an alternative medication. I would pair this assertion with observed signs and symptoms as evidence to support it. As a part of that process, but also for its own sake, I would sit with the client and discuss their feelings. Doing so may allow me to gather information that I could use to guide non-pharmacological interventions. For example, if the client reports that they feel a lack of control over their daily routine, I could look for ways to empower the client to make more decisions.

Regarding their increased confusion, I would want the prescriber to investigate potential causes aside from worsening dementia. This client, for instance, takes furosemide which may cause electrolyte imbalance which could be contributing to their confusion (Jones & Bartlett, 2019). Based on this, I would recommend a BMP. I would want to check how long they have been taking Lyrica – a noted adverse reaction with Lyrica is confusion (Jones & Bartlett, 2019). If their increase in confusion coincides with initiating pregabalin or an increase in dose, it may be the cause. As discussed further under pain management, a possible solution to this that could reduce the total number of medications the client takes might be to discontinue Lyrica and fluoxetine in favor of duloxetine which could treat

both depression and fibromyalgia. (Jones & Bartlett, 2018). Furthermore, confusion is also a potential adverse effect of rivastigmine. While use of the rivastigmine for dementia is indicated, if it is causing the client's increased confusion, the risk to client safety likely outweighs any benefit the client is getting from therapy with this medication. It would also be prudent to check liver and kidney function as renal impairment could respectively interfere with drug metabolism and excretion. With respect to non-pharmacological interventions, I would look for ways to simplify information and decisions in order to promote independence and limit distress. For instance, if the client had historically been selecting their own clothing but can no longer decide what to wear or make appropriate choices, presenting them with several weather appropriate options and asking them which they would like to wear promotes patient autonomy while still making sure they are dressed appropriately. Another non-pharmacological intervention might be putting a sign with their name on the door if they are having difficulty remembering where their room is.

Regarding their increased pain, I would attempt to elicit clarifying information from the client. Specifically, I would want a better idea of if the pain is due to their fibromyalgia, their osteoarthritis, or some other source. If the pain seemed to be related to their fibromyalgia, I would ask the provider to re-evaluate the client's dosage of Lyrica. Another possibility may be substituting the client's fluoxetine, which has not been controlling their depression with an effective dose of duloxetine which is also indicated for the treatment of fibromyalgia (Jones & Bartlett, 2019). If the pain seems to be related to their osteoarthritis, and if they are experiencing pain more than 12 hours a day, I would ask the provider to consider adding scheduled pain management as a preventative measure in addition to their PRN ketorolac for breakthrough pain. (Hinkle & Cheever, 2018). If scheduled pain management proves effective in keeping the client's pain at a tolerable level, it may be possible to discontinue their ketorolac. Non-pharmacologically, I would also

ask the provider to consider orders for PT/OT evaluation and treatment. Furthermore, I would explore interventions that could increase the client's tolerance for ADLs. For instance, if osteoarthritis in their hands or fingers makes it painful for them to manipulate buttons or zippers or tie shoelaces when getting dressed, the client might benefit from changing their wardrobe to include clothing without fasteners or shoes that slip on or are fastened with Velcro.

A final area I wanted to explore was the client's treatment for their hypertension. This client is taking both diltiazem and furosemide. I would ask the provider to consider whether both medications are necessary to manage her hypertension, and, if the provider believes it is appropriate, to discontinue one of the medications. Furthermore, discontinuation of one of the drugs may be made more feasible with accompanying lifestyle changes. While significantly increasing the activity levels of an elderly client with osteoarthritis and significant confusion may not be realistic, other changes like weight reduction (if appropriate) or a low-sodium diet may be. (Holman, Williams, et al., 2019).

What would the patients monthly out of pocket expense for all 10 medications? (Total Cost for all 10 meds)?

For the sake of answering this question, it would be prudent to consider that a patient like the one in the scenario is unlikely to search multiple pharmacies for the lowest prices on individual medications or utilize on-line bulk ordering of their OTC meds to reduce unit cost. Rather, it is more likely that their medications would be obtained from a single pharmacy. Accordingly, a price quote for the provided medication list was obtained from Tal Rozene, Rph -- a pharmacist at Well Creek Pharmacy in Charleston, Illinois. With the assumptions that: (1) the client would be taking brand name Lyrica rather than generic pregabalin; and (2) they would purchase a 20 tablet supply of ketorolac each month, the total would come to \$686.10 a month. If the client instead purchased generic pregabalin, the total would be \$208.72.

Reflective Statement of Experience:

This exercise, for me, felt familiar because thinking critically about a client's medication regimen is a significant portion of my job. While the nurse does not prescribe medications to clients, it is certainly in our purview to make observations about how the client is responding to their medications, share those observations with the provider, and make informed recommendations concerning the client's medication regimen to the provider. To be clear, we are not merely able to do so: As patient advocates we have a duty to do so. This scenario concerns an elderly client with dementia and worsening confusion. This was an aspect of particular interest to me about this scenario as the majority of my nursing experience has been in memory care. As a result of their diminished cognitive abilities, such clients are often unable to articulate their perceived response to the medications they take and advocate for themselves

when they are experiencing adverse effects. Thus, with these clients, it is particularly important for the nurse to assess for therapeutic response, drug interactions, and adverse effects.

Polypharmacy can be defined succinctly as the use of multiple medications, which may be associated with an increased risk of interactions and subsequent complications. (Frandsen & Pennington, 2017). Because it is unavoidable that the potential for medication interactions increases with the number of medications taken, it is desirable, when possible, to reduce the total number of medications that clients – and particularly elderly clients, who are independently at an increased risk for adverse effects due to their age -- take. In this scenario, I was able to identify several medications that it may benefit the client to change or discontinue. While the client's depression is not well managed at her current dose of fluoxetine, trying a different antidepressant like duloxetine may be effective for both her fibromyalgia and for her depression, which may allow discontinuation of Lyrica (Jones & Bartlett, 2019). Utilizing scheduled pain management as a preventative measure for osteoarthritic pain, if that is the source of her increased pain, may allow for the discontinuation of her PRN ketorolac and Tylenol. The client's increased confusion could be related to her use of Lyrica, her use of rivastigmine, or secondary to an electrolyte imbalance as a result of her furosemide use. (Jones & Bartlett, 2019). If any of these are the cause of her increased confusion, they could and should be discontinued. Finally, the client is taking both diltiazem and furosemide for her hypertension. With lifestyle changes, it should be considered whether it is possible to discontinue one of these medications.

References

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N322 Polypharmacy Grading Rubric

Criteria	Excellent 40 points	Acceptable 31-39 points	Unacceptable 0-30 points	Points Earned
Each drug should have a completed breakdown within the tables provided, which includes the following: <ul style="list-style-type: none"> • Drug class • Generic name • Trade name • How is the medication taken (include dose, route, frequency) 	All key components were addressed within the paper and were accurate.	The student provided the required information for some of the medications, but not all and/or the answers provided were inaccurate. (Each individual component for each medication is worth one point)	The student failed to address a sufficient number of the listed components within the paper and/or the components were addressed but were inaccurate. (Each individual component for each medication is worth one point)	___/40

Criteria	Excellent 10 points	Acceptable 8-10 points	Unacceptable 0 - 7 points	Points Earned
<p>Specific Directions not included above:</p> <ul style="list-style-type: none"> Is there any type of medication on the patient list that have specific directions? <p>(before bed, before breakfast, 30 minutes before meals, etc..)</p>	<p>All key components were addressed within the paper.</p>	<p>The student did list some of the medications that required specific directions, however some of the medications included specific directions that were not addressed and/or were inaccurate. (For each medication this question if worth one point)</p>	<p>Student failed to answer the questions and/or the answers were inaccurate. (For each medication this question is worth one point)</p>	<p>___/10</p>
Criteria	Excellent 0 points	Acceptable 16-19	Unacceptable 0-15 points	Points Earned
<p>Does this medication have any potentially serious interactions with any other medication(s) on this list, and/or potential interactions that should be closely monitored due to co-administration?</p> <ul style="list-style-type: none"> Do any of the medications interact with each other? <p>(Please note: if there is an interaction between two medication, you MUST list that interaction on BOTH medications to receive full credit. You may utilize the same verbiage/wording on each medication, we want to know you are thinking about it</p>	<p>All medications reviewed and student explained medication interactions.</p>	<p>The student did list some of the potential interactions of the medication(s), but failed to address all potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points)</p>	<p>Student failed to answer question and/or The student did list some of the potential interactions of the medication(s), but failed to address all potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points)</p>	<p>___/20</p>

when considering each medication)				
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Criteria	Excellent 5 points	Acceptable 4 points	Unacceptable 0 -3 points	Points Earned
Lifestyle interactions: <ul style="list-style-type: none"> What lifestyle factors counteract with the medications? (tobacco user, ETOH use – 3 beers daily)	Student showed knowledge why lifestyle would counteract with medications	The student listed lifestyle interactions for some of the medications, but not all and/or the interactions listed were not priority or were incorrect. (For each medication, this question is worth half a point)	Student failed to answer question or the student listed lifestyle interactions for some of the medications, but not all and/or the interactions listed were not priority or were incorrect. (For each medication, this question is worth half a point)	___/5
Criteria	Excellent 10 points	Average 8-9	Unacceptable 0-7 points	Points Earned
<ul style="list-style-type: none"> Does any of the client’s past medical 	Student showed	Student provided answers to the question(s), but failed to	Student failed to answer question	___/10

history contradict the use of this medication?	knowledge why the client's past medical history would contradict the use of the medication(s).	answer all the questions and/ or the answers provided were inaccurate. (For each medication this question is worth one point)	or Student provided answers to the question(s), but failed to answer all the questions and/or the answers provided were inaccurate. (For each medication this question is worth one point)	
Criteria	Excellent 10 points	Acceptable 8-9 points	Unacceptable 0-7 points	Points Earned
<ul style="list-style-type: none"> What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general) 	Student showed knowledge of medications and what conditions corresponds with medications	The student provided appropriate indications for some of the medications, but failed to capture all of the appropriate indications for use. (For each medication this question is worth one point)	Student failed to answer the question or The student provided appropriate indications for some of the medications, but failed to capture all of the appropriate indications for use. (For each medication this question is worth one point)	___/10
Criteria	Excellent 20 points	Acceptable 16-19 points	Unacceptable 0-15 points	Points Earned

<p>What would you teach the client about taking this medication?</p> <ul style="list-style-type: none"> What education is needed for the medication? (For each medication listed the student must prioritize two topics for client education) <p>(You must consider all component(s) of the medication list when answering this question... if there are potential interactions with other medication this may be a priority over general education for this one medication)</p>	<p>Student showed the importance of medication education, and appropriate prioritized client education for the scenario provided.</p>	<p>The student provided some appropriate education for the client, but failed to capture all of the appropriately prioritized education for the client. (Each topic of education is worth one point)</p>	<p>Student failed to answer the question OR The student provided some appropriate education for the client, but failed to capture all of the appropriately prioritized education for the client. (Each topic of education is worth one point)</p>	<p>___/20</p>
<p>Criteria</p>	<p>Excellent 10 points</p>	<p>Acceptable 8-9 points</p>	<p>Unacceptable 0-7 points</p>	<p>Points Earned</p>
<p>Is there anything about this medication regimen/ scenario that might indicate a potential difficulty in maintaining compliance with the orders as listed?</p> <ul style="list-style-type: none"> Why would the patient have difficulty maintaining the medication regimen? 	<p>Student had knowledge on why a patient would have difficulty with medication regimen</p>	<p>The student indicated some potential reasons that the client may have difficulty, however the student failed to indicate a reason OR an appropriate reason for some of the medications (This question is worth one point for each medication)</p>	<p>Student failed to answer the question OR the student indicated some potential reasons that the client may have difficulty, however the student failed to</p>	<p>___/10</p>

(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc)			indicate a reason OR an appropriate reason for some of the medications (This question is worth one point for each medication)	
Criteria	Excellent 10 points	Acceptable 8-9 points	Unacceptable 0-7 points	Points Earned
Is there anything about this medication regimen/ scenario that might assist the client in maintaining the medication regimen as ordered? <ul style="list-style-type: none"> What factors are present to remain compliant? (Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc.	Student had knowledge on medication compliance	The student answered the question appropriately for some of the medications but failed to indicate all of the factors that are present that assist with compliance. (This question is worth one point for each medication)	Student failed to answer the question OR The student answered the question appropriately for some of the medications but failed to indicate all of the factors that are present that assist with compliance. (This question is worth one point for each medication)	___/10
Criteria	Excellent 10 points	Acceptable 8-9 points	Unacceptable 0 points	Points Earned
<ul style="list-style-type: none"> How much would this medication cost per month if the patient were to pay 	Student showed research on medication	The student provided accurate research for some of the medications, but failed to provided research for all	Student failed to answer the question OR The student	___/15

<p>for them out of pocket? (best assessment based off of research)</p> <ul style="list-style-type: none"> • What would the client's monthly out of pocket expense for all 10 medications? 	<p>costs</p>	<p>medications (This question is worth one point for each medication, with the total cost being worth 5 points)</p>	<p>provided accurate research for some of the medications, but failed to provide research for all medications (This question is worth one point for each medication, with the total cost being worth 5 points)</p>	
<p>Criteria</p>	<p>Excellent 20 points</p>	<p>Acceptable 16-19 points</p>	<p>Unacceptable 0-15 points</p>	<p>Points Earned</p>
<p>The student must appropriately format the paper and include all of the following:</p> <ul style="list-style-type: none"> • Entire document must include appropriate citations, reference page, title page, page numbers, running head, all with appropriate formatting per APA (10 points – each missing or inaccurate portion 	<p>The document included a title page, the rubric, the client scenario, a reference page which included five references that were cited within the document. APA formatting was consistent with the APA manual.</p>	<p>The document did not meet all of the criteria for formatting/ referencing. See “criteria” to the left for further breakdown.</p>	<p>The document did not meet all of the criteria for formatting/ referencing. See “criteria” to the left for further breakdown.</p>	<p>___/20</p>

<p>per APA is worth one point)</p> <ul style="list-style-type: none"> • The student provided a rubric attached for grading (3 points) • The student included the provided client scenario on page two of the document (2 points) • The paper included a minimum of five references which were cited within the document (each reference with one citation is worth 5 points) 				
Criteria	Excellent 20 points	Acceptable 16-19 points	Unacceptable 0-15 points	Points Earned
<p>What suggestions might you make to the prescriber and/or client (or questions you might ask the prescriber) to help this client scenario? (think about decreasing the potential for interaction(s) through medication reduction, other potential medications, diet changes, lifestyle changes, etc)</p> <p>Elaborate on this, explaining</p>	<p>The student was able to identify one potential idea or question to present to the prescriber or client. This question showed evidence of good critical thinking.</p>	<p>The student was able to identify one potential idea or question to present to the prescriber or client, however there was a much higher priority question/suggestion/issue within the scenario that should have been addressed.</p>	<p>The student failed to answer the question OR the student answered the question, however the students answer was dangerously inaccurate.</p>	<p>____/20</p>

<p>why you feel it should be addressed, why it is priority and provide evidence behind your presentation.</p>				
<p>Criteria</p>	<p>Excellent 10 points</p>	<p>Acceptable 8-9 points</p>	<p>Unacceptable 0-7 points</p>	<p>Points Earned</p>
<ul style="list-style-type: none"> • Reflective statement of experience should include the following: -insight into the project itself (a specific example within the project and its implications) -A basic understanding of polypharmacy -A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver 	<p>The students provided reflection showed good insight into the project itself, polypharmacy, and the nurses role in client advocacy</p>	<p>The student provided a reflection, however the reflection lacked one of the following -insight into the project itself (a specific example within the project and its implications). -A basic understanding of polypharmacy -A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</p>	<p>Student failed to reflect on their project OR the student addressed only of the topics of reflection</p>	<p>___/10</p>
<p>Total Points</p>				<p>___/200</p>