

Polypharmacy Project

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N322 Introduction to Pharmacology

Lakeview College of Nursing

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PLEASE INSERT YOUR CLIENT SCENARIO HERE – THIS WILL BE PAGE TWO OF THE DOCUMENT

Patient: 88 year old male

Social History: Patient lives with spouse in independent living. Both he and his wife have Medicare and social security. Children are involved for support

Medical History: Dementia, Hypertension, Chronic Kidney Disease, Hyperlipidemia, Chronic Anemia, Rheumatoid Arthritis

Allergies: Lisinopril, Sulfa, Latex

Weight: 250 pounds

Height: 6'4"

Medications:

Donepezil 10mg PO Daily at bedtime

Enalapril 10mg PO BID

Fenofibrate 145mg PO Daily

Oxycodone 2.5mg Q6 PRN

POLYPHARMACY

Miralax Packet 17 G mixed with juice/water every morning

Prednisone 10mg PO every day

Lorazepam 0.5mg TID PRN

Aranesp 0.45mcg/kg SUBQ every 4 weeks

Ferrous Sulfate 325mg PO Daily

Paroxetine 20mg Daily

Drug #1	Drug Name (Generic): Donepezil Hydrochloride
Drug Class: Antidementia	Drug Name (Trade): Aricept
How is the medication taken: (include dose, route,	10mg PO Daily

and frequency)	
Specific Directions not included above:	Take medication at bedtime and around the same time every day. This medication can be taken with or without food.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Paroxetine is classified as potential for interaction. Paroxetine increases the level or effect of donepezil by altering drug metabolism
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid alcohol and “street” drugs while taking this medication, interactions can occur.
Does any of the client’s past medical history contradict the use of this medication?	No
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)	This medication is used based on patients PMH that he has dementia.
What would you teach the client about taking this medication?	This medication can be taken with or without food. Avoid hazardous activities, such as driving, until the CNS effects are known. Caution patient to avoid NSAIDs during therapy due to the risk of GI bleeding.
How much would medication cost per month if paying out of pocket?	\$13.45 for 30 tablets

Drug #2	Drug Name (Generic): Enalapril Maleate
Drug Class: ACE Inhibitor, Antihypertensive Vasodilator	Drug Name (Trade): Epaned, Vasotec
How is the medication taken: (include dose, route, and frequency)	10mg PO BID
Specific Directions not included above:	This medication is taken twice a day and can be taken with or without food. However, do take this medication around the same time or times every day.
Does this medication interact with any other	NA

medication(s) on this list? (see rubric for further instruction)	
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid alcohol use, it can lower ones blood pressure even more and cause dizziness.
Does any of the client's past medical history contradict the use of this medication?	Yes, this patient has a history of CKD and that is a contradiction of taking this medication. Patient is also has an allergy to Lisinopril.
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)	This patient has a history of HTN, it is prescribed to treat hypertension.
What would you teach the client about taking this medication?	<p>Educate the patient to take this medication at the same time each day.</p> <p>Do not split, crush or chew the tablet.</p> <p>Educate the patient and or family to mix oral solution if prescribed.</p> <p>Inform the patient that fainting and light headedness may occur, especially during first few days of therapy. Advise patient to change positions slowly.</p> <p>Avoid food containing salt substitutes, they increase risk of hyperkalemia.</p>
How much would medication cost per month if paying out of pocket?	\$20.99 for 30 tablets

Drug #3	Drug Name (Generic): Fenofibrate
Drug Class: Antihyperlipidemic	Drug Name (Trade): Tricor
How is the medication taken: (include dose, route, and frequency)	145mg PO Daily
Specific Directions not included above:	Take with food
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	NA
Lifestyle interactions:	Avoid Alcohol

(Daily tobacco use, alcohol, drugs, etc.)	
Does any of the client's past medical history contradict the use of this medication?	A past medical history that contradicts the use of this medication chronic anemia.
What is the indication for use of this medication based on the clients 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)	This medication is prescribed this medication due to his history of hyperlipidemia.
What would you teach the client about taking this medication?	<p>To seek emergency treatment if he develops pain, swelling, and redness in his limb or sudden shortness of breath, anxiety, and restlessness.</p> <p>This drug will be effective only if the patient follows prescribers' instructions about diet and exercise.</p> <p>Take with food.</p> <p>Store the tablets in their original container and to avoid taking any chipped or broken tablets.</p> <p>Educate patient that he needs lab work done every 3-6 months during the first year.</p> <p>Report any chills, fever or sore throat, muscle pain, tenderness, weakness, especially if accompanied by fatigue or fever.</p>

<p>How much would medication cost per month if paying out of pocket?</p>	<p>\$57.00 for 30 tablets</p>
<p>Drug #4</p>	<p>Drug Name (Generic): Oxycodone Hydrochloride</p>
<p>Drug Class: Analgesic</p>	<p>Drug Name (Trade): Oxecta, OxyContin, Roxicodone, Supeudol, Xtampza ER</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>2.5mg Q6 PRN</p>
<p>Specific Directions not included above:</p>	<p>The route of medication was not included.</p>
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<p>This medication interacts with Lorazepam. Both medications cause depression of the CNS which can lead to serious side effects when they are taken together. Side effects include respiratory depression, coma, death and sedation.</p> <p>Paroxetine is classified as a moderate interaction. When these medications are used together, they can increase the risk of a rare but serious condition called serotonin syndrome. Symptoms include confusion, seizures, hallucinations, BP changes, increased</p>

	heart rate, sweating, shaking, shivering, blurred vision, fever, stiffness, tremor, stomach cramps, nausea, vomiting, diarrhea.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid Alcohol If taken with alcohol it can cause respiratory distress and even death.
Does any of the client's past medical history contradict the use of this medication?	NA
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)	To relieve pain that is severe enough to require an opioid treatment and for which alternative treatment options such as nonopioid analgesics or opioid combination products are inadequate or not tolerated. He is taking this medication to assist with the pain that comes with RA.
What would you teach the client about taking this medication?	Avoid alcohol Swallow the tablets whole and do not break, chew or crush them because taking broken, chewed or crushed tablets leads to rapid release and absorption of a potentially fatal dose. Warn patient to avoid benzodiazepine without prescriber knowledge as severe respiratory depression can occur and may lead to death. Avoid hazardous activities such as driving during oxycodone therapy. Notify prescriber about signs of possible toxicity or hypersensitivity such as light

	<p>headedness, extremes dizziness, itching, swelling and trouble breathing.</p> <p>Notify all prescribers of opioid use.</p> <p>Do not take medication more often than prescribed and not to take it longer than absolutely needed due to excessive or prolonged use can lead to abuse, addiction, misuse, overdose, and possibly death.</p> <p>Do not abruptly stop medication after long term use.</p>
<p>How much would medication cost per month if paying out of pocket?</p>	<p>\$51.00 months supply</p>

Drug #5	Drug Name (Generic): Polyethylene Glycol 3350
Drug Class: Laxative	Drug Name (Trade): Miralax
How is the medication taken: (include dose, route, and frequency)	17g (1 packet) PO daily
Specific Directions not included above:	Take with juice or water every morning
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Prednisone is a moderate interaction. When combined over a long period of time, may increase the risk of dehydration and hypokalemia. In server case hypokalemia can lead to muscle weakness, difficulty breathing, paralysis, and irregular heart rhythm.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	NA
Does any of the client's past medical history contradict the use of this medication?	NA
What is the indication for use of this medication based on the client's past medical history? (If unable	This medication is used to constipation or irregular BMs. There is no indication that the client has either in his PMH. .

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?	Do not take this medication more than one time a day. Store at room temperature and away from heat and moisture. Miralax should produce a bowel movement within 1-3 days of using this medication.
How much would medication cost per month if paying out of pocket?	\$50.50 per month.

Drug #6	Drug Name (Generic): Prednisone
Drug Class: Anti-Inflammatory, Immunosuppressant	Drug Name (Trade): Deltasone, Sterapred, Rayos
How is the medication taken: (include dose, route, and frequency)	10mg PO Daily
Specific Directions not included above:	This medication is usually taken with food. Do not crush or chew the delayed-released tablet.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Miralax is considered a moderate interaction. When the medications are combined over a long period of time, may increase the risk of dehydration and hypokalemia. In severe case hypokalemia can lead to muscle weakness, paralysis, difficulty breathing or swallowing, and irregular rhythm.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid alcohol use
Does any of the client's past medical history contradict the use of this medication?	Yes, this medication is contradicted with hyperlipidemia and hypertension.
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 patient has Rheumatoid Arthritis.

<p>What would you teach the client about taking this medication?</p>	<p>Instruct patient to take med with food to decrease GI distress and to take once daily in the morning.</p> <p>The importance of taking this medication exactly as prescribed, taking more than prescribed increases the risk of serious adverse reactions.</p> <p>Do not break, divide, or chew tablet because the delayed release action is dependent on an intact coating.</p> <p>Avoid hazardous activities.</p> <p>Do not get vaccinations or other immunizations and coming in contact with people who have recently received oral poliovirus vaccine.</p> <p>Notify provider if you experience any joint pain, swelling, tarry stools, and visual disturbances.</p> <p>Instruct patient to report signs of infection or injury.</p> <p>Comply with follow up visits to asses drug effectiveness and detect adverse reactions</p> <p>Take all of the medication as prescribed.</p> <p>Do not abruptly stop taking medication, it needs to be tapered off.</p>
<p>How much would medication cost per month if paying out of pocket?</p>	<p>\$10.00</p>

Drug #7	Drug Name (Generic): Lorazepam
Drug Class: Amnestic, Antianxiety, Anticonvulsant, Sedative	Drug Name (Trade): Ativan
How is the medication taken: (include dose, route, and frequency)	0.5mg TID PRN
Specific Directions not included above:	The route is not included. Do not take this medication more than 3 times a day and only

	as needed for anxiety.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	This medication interacts with Opioids such as Oxycodone. Oxycodone is considered a major interaction. Both medications cause CNS depression which can lead to serious side effects when taken together. Side effects are respiratory depression, coma, sedation or even death. Paroxetine is considered a moderate interaction. When these medications are combined one can experience dizziness, drowsiness, confusion, and difficulty concentrating. In older adults they may have impairment of thinking, judging and motor coordination.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid alcohol
Does any of the client's past medical history contradict the use of this medication?	CKD contradicts 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)	Medication is indicated for anxiety, insomnia, and status epilepticus. None of these are in the patient's PMH.
What would you teach the client about taking this	Take this med exactly as prescribed and not to stop without consulting prescriber due to

<p>medication?</p>	<p>the risk of withdrawal symptoms.</p> <p>Avoid hazardous activities until the drug's CNS effects are known.</p> <p>Avoid alcohol because it increases drugs's CNS depressant effect and can cause severe respiratory depression which may lead to death.</p> <p>Instruct patience to report excessive drowsiness and nausea.</p> <p>Potentially fatal additive effects of combining lorazepam with an opioid. Instruct him to inform all prescribers of lorazepam use, especially when pain medication may be prescribed.</p>
<p>How much would medication cost per month if paying out of pocket?</p>	<p>\$20.00</p>

<p>Drug #8</p>	<p>Drug Name (Generic): Darbepoetin Alfa</p>
<p>Drug Class: Antianemic</p>	<p>Drug Name (Trade): Aranesp</p>
<p>How is the medication taken: (include dose, route,</p>	<p>0.45mcg/kg SUBQ Every 4 Weeks</p>

and frequency)	
Specific Directions not included above:	Patient weighs 250lbs which is 99.8kg 44.91mcg is the dosage amount for this patient.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	NA
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Alcohol consumption can cause interactions. Please avoid alcohol.
Does any of the client's past medical history contradict the use of this medication?	Hypertension contradicts the use of this medication. It is a major interaction. The agents used together may rise BP. Hepatic encephalopathy and seizures have been seen in patients with CRF treated with these medications.
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)	To treat chronic anemia from chronic renal failure. This patient has chronic anemia and CKD.
What would you teach the client about taking this medication?	Educate patient and or family on how to administer a subcutaneous injection, rotate sites, and properly dispose of needles, syringes, or unused portions of single dose vials.

	<p>There is a risk of seizures in highest during the first 90 days of therapy. Avoid hazardous activities during this time.</p> <p>Please be compliant with the dosage regiment and keeping your follow up medical and lab appointments.</p> <p>Follow up with prescriber for BP monitoring.</p> <p>Eat adequate quantities of iron rich food.</p> <p>Do not reuse needles, syringes, or drug product.</p> <p>Explain the needle cover on prefilled syringe contains dry natural rubber and may cause allergic reaction in those with latex sensitivity. This patient is allergic to latex.</p>
<p>How much would medication cost per month if paying out of pocket?</p>	<p>\$198</p>

<p>Drug #9</p>	<p>Drug Name (Generic): Ferrous Sulfate</p>
<p>Drug Class: Antianemic, Nutritional supplement</p>	<p>Drug Name (Trade): Feosol, Feratab</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>325mg PO Daily</p>
<p>Specific Directions not included above:</p>	<p>Take this medication on an empty stomach, atleast 1 hour before or 2 hours after a meal. Take with a full glass of water. Do not crush, chew, break or open the extended-</p>

	release tablet or capsule.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	NA
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid the following, coffee, eggs, food that contains bicarbonates, carbonates, exalates or phosphates, milk and milk products, tea that contains tannic acid, whole grain breads and cereals and other high fiber foods. These items decrease iron absorption and effectiveness. Alcohol use increases serum Iron level, avoid alcohol use.
Does any of the client's past medical history contradict the use of this medication?	NA
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)	Indication for use in this client would be chronic anemia.
What would you teach the client about taking this medication?	Do not chew any solid form of iron except for chewable tablets. To eat chicken, fish, lean red meat, and turkey and food that is rich with Vitamin C to improve iron absorption.

	<p>Avoid foods that impair iron absorption, dairy, eggs, spinach, and high fiber foods and cereals, bran. Do not drink coffee or tea within one hour of taking this medication.</p> <p>Do not take antacids or calcium supplements 1 hour before and 2 hours after taking this medication.</p> <p>Your stool should become dark green or black during therapy. Notify your provider if it does not.</p> <p>Keep out of reach of children</p>
How much would medication cost per month if paying out of pocket?	\$22.98

<p>Drug #10</p> <p>Drug Class: Antianxiety, Antidepressant, Antiobsessional, Antipanic, Premenstrual analgesic</p>	<p>Drug Name (Generic): Paroxetine Hydrochloride</p> <p>Drug Name (Trade): Paxil, Paxil CR</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>20mg PO Daily</p>
<p>Specific Directions not included above:</p>	<p>Take medication in the morning. Take it with food if you experience adverse GI reactions.</p>
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<p>Oxycodone is considered a moderate interaction. These medications together can increase the risk of a rare, serious condition called serotonin syndrome. Symptoms may include confusion, seizures, hallucinations, extreme changes in BP, increased heart rate, fever, excessive sweating, shivering or shaking, blurred vision, muscle spasm, or stiffness, tremor, incoordination, stomach cramp, nausea, vomiting, and diarrhea.</p> <p>Donepezil is considered a potential for interaction. Paroxetin increases the level or effect</p>

	<p>of donepezil by altering drug metabolism</p> <p>Lorazepam is considered a moderate interaction. When they are combined side effects may include dizziness, drowsiness, confusion, and difficulty concentrating. In older adults they may experience impairment of thinking, judgement, and motor coordination.</p>
<p>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)</p>	<p>Avoid alcohol during use of this drug, the effects are unknown.</p>
<p>Does any of the client's past medical history contradict the use of this medication?</p>	<p>CKD contradicts the use of this medication. The interaction is considered moderate.</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>Paroxetine may accumulate in renal dysfunction and should be administered cautiously. To treat obsessive compulsive disorder, social anxiety disorder, panic disorder, PTSD and major depression. None of these are in the patients PMH.</p>
<p>What would you teach the client about taking this medication?</p>	<p>Take medication in the morning to minimize insomnia and to take it with food if adverse GI reaction develop.</p> <p>Tell family and or caregivers to observe patient closely for suicidal tendencies, especially when therapy starts to dosage changes.</p>

	It takes 4 weeks to get the full effect of the medication. Avoid alcohol during use of this drug, the effects are unknown. Do not stop drug abruptly but to taper dosage as instructed.
How much would medication cost per month if paying out of pocket?	\$15.00

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

Yes, this patient has dementia. Dementia can make medication compliance very difficult at times. It is difficult for someone with dementia to be consistent with a schedule and to remember when to take his medications. Dementia patients may even double up on their medications and not realize it.

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

The patient lives with his spouse, so his spouse could help him with his medications. She can make sure that he is taking them correctly and at the appropriate times. His record also mentions that their children are involved. So, his children could also check in routinely with him to make sure that he is taking the medication properly.

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)

For this patient, maybe have more fiber in his diet and add light exercise, by doing so Miralax might be able to be removed from his ordered medication list. Another suggestion is to remove paroxetine from his medications. He does not have a PMH indicating the need for this medication and there are several interactions. We would also want to determine if and how often this patient is taking his PRN medications.

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

\$265.98 would be this patient monthly out of pocket expense for all 10 medications.

Reflective Statement of Experience:

This assignment was very eye opening. It really made me dig into the pharmacology of medications and search for the information that was being asked. Seeing how important it is to know what medications our patients are taking and what is being prescribed and there interactions is very eye opening. Knowing that this patient had some drug interactions that could have killed him is very scary and is preventable.

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