

**Polypharmacy Project**

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N322 Introduction to Pharmacology

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

### **Polypharmacy Case 2**

Background: Amy is an 87-year-old female that lives in an assisted living facility. Part of the living arrangements in the facility is a pharmacy service that delivers their meds in pre-filled medication packages (accu-pacs) every week. These packages are labeled with the date and time of administration. (see example picture attached). Amy is expected to take her medications independently. She has no family nearby to assist her. She is followed by her primary care physician as well as an endocrinologist, whom she currently visits monthly as her diabetes is not well controlled. Amy does not have a driver's license, and is experiencing significant difficulty with her vision r/t diabetic retinopathy. Amy does not drink, or use illicit drugs. Amy does have a history of smoking cigarettes (26 pack years). She quit 10 years ago, and smoke 1 pack per day for 26 years).

Insurance: Amy has good health insurance that covers the cost of her prescription medications with little co-pay.

Allergies: Sulfa & Pepto-Bismol

Diet: Controlled carbohydrates

Medical diagnosis: Type II Diabetes, diabetic retinopathy, diabetic neuropathy, osteoporosis

Current medications include the following:

Aspirin 81 mg by mouth two times a day

Calcium 500 mg by mouth two times a day

Multivitamin with minerals by mouth one time a day

Docusate Sodium 100 mg by mouth two times a day

Glyburide 10 mg by mouth one time a day

Levemir 15 units SC at HS

Novolog per sliding scale SC AC & HS

Ranibizumab 0.5 mg via intravitreal injection (given at doctor's office) once a month

Gabapentin 300 mg by mouth three times a day

Ibuprofen 400 mg by mouth every six hours as needed

Fritz, T. (2004). Accupac image. Retrieved May 12, 2020 from <http://www.modelhealthcare.com/>

<b>Drug #1</b>	<p><b>Drug Name (Generic): Aspirin</b></p> <p><b>Drug Name (Trade): Bayer Aspirin, Durlaza, Ecotrin</b></p> <p><b>Drug Class: Therapeutic class: NSAIDs</b></p> <p style="text-align: center;"><b>Pharmacologic class: Salicylates</b></p>
<b>How is the medication taken: (include dose, route, and frequency)</b>	81 mg by mouth two times a day
<b>Specific Directions not included above:</b>	Give drugs with food, milk, antacid, or a large glass of water to reduce GI effects (Nursing2022 Drug Handbook, 2022).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	<p>Ibuprofen + aspirin: Frequent or regular use of ibuprofen may reduce the effectiveness of aspirin if you are taking it to prevent heart attacks or strokes. Combining these medications may increase your risk of developing gastrointestinal ulcers and bleeding (Medscape, 2023).</p> <p>Oral antidiabetics, e.g., Glyburide: May increase the hypoglycemic effect (Nursing 2022 Drug Handbook, 2022).</p>

	<p>Aspirin + Levemir: This may increase the risk of low glucose levels (Drugs.com, 2023).</p> <p>Novolog + aspirin: Using aspirin with insulin or other diabetes medications may increase the risk of hypoglycemia (Medscape, 2023).</p>
<p><b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc. )</b></p>	<p>Alcohol use: May increase the risk of GI bleeding. Do not use together (Nursing2022 Drug Handbook, 2022).</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>The client's uncontrolled diabetes has a predisposed risk of nonalcoholic fatty liver disease.</p>
<p><b>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)</b></p>	<p>This medication reduces the risk of recurrent TIAs and stroke or death in at-risk patients. It can contradict aspirin indications in patients with hepatic impairment (Nursing2022 Drug Handbook, 2022).</p>
<p><b>What would you teach the client about taking this</b></p>	<p><b>1.</b> Advise the client to watch for red pinprick spots called Petechiae, bleeding gums, and signs</p>

<b>medication? You must prioritize 2 (see rubric)</b>	of GI bleeding (Nursing2022 Drug Handbook, 2022).  2. Advise the client on a low-salt diet that one tablet of buffered aspirin contains 553 mg of sodium (Nursing2022 Drug Handbook, 2022).
<b>How much would medication cost per month if paying out of pocket?</b>	\$9.73 per 36 qty

<b>Drug #2</b>	<b>Drug Name (Generic): Calcium Gluconate</b>  <b>Drug Name (Trade): Kalcinate, Cal-G, Cal-GLU</b>  <b>Drug Class: Therapeutic class: Calcium supplements</b>  <b>Pharmacologic class: Calcium salts</b>
<b>How is the medication taken: (include dose, route, and frequency)</b>	500 mg by mouth two times a day
<b>Specific Directions not included above:</b>	Give 1 to 1½ hours after meals if GI upset occurs (Nursing2022 Drug Handbook, 2022).

<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	If a multivitamin contains Iron: It may reduce iron absorption. Separate drug administration by 2 hours (Nursing2022 Drug Handbook, 2022).
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc. )</b>	The client's smoking history has put the client at risk for accelerated bone loss due to lowered intestinal calcium absorption efficiency (National Institute of Health, 2018).
<b>Does any of the client's past medical history contradict the use of this medication?</b>	No contraindications with this drug.
<b>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)</b>	This drug is indicated as a dietary supplement. This drug can also be used as a treatment for hypocalcemia and hyperphosphatemia (Nursing2022 Drug Handbook, 2022).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<b>1.</b> Tell the client not to eat rhubarb, spinach, bran, whole-grain cereals, or dairy products in the meal before taking calcium; these foods may interfere with calcium absorption (Nursing

	<p>2022 Drug Handbook, 2022).</p> <p>2. Advise the client to notify the prescriber if taking OTC products such as iron (Nursing 2022 Drug Handbook, 2022).</p>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>\$11.99 per 130 qty</p> <p>\$2.99 per month</p>
<p><b>Drug #3</b></p>	<p><b>Drug Name (Generic): Multivitamin</b></p> <p><b>Drug Name (Trade): MultiVites, One a Day Multivitamin, Centrum Complete</b></p> <p><b>Drug Class: Vitamin and mineral combination</b></p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>Multivitamin with minerals by mouth one time a day.</p>
<p><b>Specific Directions not included above:</b></p>	<p>Do not take multivitamins with milk, other dairy products, calcium supplements, or antacids that contain calcium. Calcium may make it harder for your body to absorb certain</p>

	multivitamin ingredients (National Institutes of Health, 2018).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	Multivitamin + Docusate: This medication contains minerals. The mineral has a moderate interaction with docusate and can increase the absorption of the mineral (Drugs.com, 2023).
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc. )</b>	No known lifestyle interaction with this medication.
<b>Does any of the client's past medical history contradict the use of this medication?</b>	No past medical history that contradicts this medication.
<b>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)</b>	This drug is indicated as a drug supplement. Other drug indications are to treat and prevent vitamin deficiency (Drugs.com, 2018).
<b>What would you teach the client about taking this</b>	<b>1.</b> If the multivitamin contains iron, avoid taking this product simultaneously as antacids,

<b>medication? You must prioritize 2 (see rubric)</b>	thyroid medications, and antibiotics (Drugs.com, 2023).  2. If the multivitamin also contains folic acid, tell your doctor or pharmacist if you take certain anti-seizure drugs (Drugs.com, 2023).
<b>How much would medication cost per month if paying out of pocket?</b>	\$15.55 per 100 qty  \$5.18 per month
<b>Drug #4</b>	<p><b>Drug Name (Generic): Docusate Sodium (dioctyl sodium sulfosuccinate)</b></p> <p><b>Drug Name (Trade): Colace, Dulcolax Stool Softener</b></p> <p><b>Drug Class: Therapeutic class: Laxatives</b></p> <p><b>Pharmacologic class: Surfactants</b></p>
<b>How is the medication taken: (include dose, route, and frequency)</b>	100 mg by mouth two times a day
<b>Specific Directions not included above:</b>	Drink plenty of liquids while you are using docusate (Nursing 2022 Drug Handbook, 2022).
<b>Does this medication interact with any other</b>	Multivitamins with mineral + Docusate Sodium: It may increase the absorption of minerals

<b>medication(s) on this list? (see rubric for further instruction)</b>	(Drugs.com, 2022).
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc. )</b>	No known lifestyle interaction with this medication.
<b>Does any of the client's past medical history contradict the use of this medication?</b>	No past medical history that contradicts this medication.
<b>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)</b>	This medication is indicated for occasional constipation (Nursing 2022 Drug Handbook, 2022).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	1. Talk to your doctor before taking if you have any stomach pain, nausea, or vomiting or have experienced a sudden change in bowel motions that has persisted for longer than two weeks (Drugs, 2023).

	<p>2. Talk to your doctor if you experience any rectal bleeding or if you fail to have a bowel movement after taking docusate for several days. A bowel movement usually occurs within one to three days of taking docusate (Drugs, 2023).</p>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>\$9.71 per 100 qty \$3.23 per month</p>
<p><b>Drug # 5</b></p>	<p><b>Drug Name (Generic):</b> Glyburide (glibenclamide) <b>Drug Name (Trade):</b> Glynase <b>Drug Class:</b> Therapeutic class: Antidiabetics Pharmacologic class: Sulfonylureas</p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>10 mg by mouth one time a day</p>

<b>Specific Directions not included above:</b>	Give drug with breakfast or first main meal (Nursing 2022 Drug Handbook, 2022).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	<p>Novolog + glyburide: Using glyburide together with insulin aspart can increase the risk of hypoglycemia (Medscape, 2023).</p> <p>Levemir + glyburide: Using glyburide together with insulin detemir can increase the risk of hypoglycemia (Drugs, 2023).</p> <p>Aspirin + Glyburide: May increase the hypoglycemic effect (Nursing 2022 Drug Handbook, 2022).</p> <p>ibuprofen + glyburide: Using ibuprofen with insulin or other diabetes medications may increase the risk of hypoglycemia (Medscape, 2023).</p>
<b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc. )</b>	Alcohol use: May alter glycemic control, most commonly causing hypoglycemia. It may cause disulfiram-like reactions. Do not use together (Nursing2022 Drug Handbook, 2022).
<b>Does any of the client's past medical history contradict the use of this medication?</b>	The client is allergic to Sulfa. Allergy to sulfonamides is contraindicated with this medication.

<b>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)</b>	This medication is indicated for glucose levels in Type II Diabetes clients. Another indication is to replace insulin therapy (Nursing 2022 Drug Handbook, 2022).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"><li>1. Teach patients to carry candy or other simple sugars for mild low glucose levels. (Nursing 2022 Drug Handbook, 2022).</li><li>2. Instruct patients to report episodes of critically low glucose levels to primary care providers immediately (Nursing 2022 Drug Handbook, 2022).</li></ol>
<b>How much would medication cost per month if paying out of pocket?</b>	\$9.99
<b>Drug # 6</b>	<b>Drug Name (Generic): Insulin Detemir</b>

	<p><b>Drug Name (Trade): Levemir</b></p> <p><b>Drug Class: Anti-diabetics</b></p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>15 units SC at HS</p>
<p><b>Specific Directions not included above:</b></p>	<p>Do not use Levemir if you are allergic to insulin detemir. Do not use it during an episode of hypoglycemia or diabetic ketoacidosis. Tell your doctor if you have ever had low levels of potassium in your blood (hypokalemia); or liver or kidney disease (Drugs, 2023).</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Levemir + aspirin: Using aspirin with insulin or other diabetes medications may increase the risk of hypoglycemia (Drugs, 2023).</p> <p>Levemir + glyburide: Using glyburide together with insulin detemir can increase the risk of hypoglycemia (Drugs, 2023).</p>
<p><b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc. )</b></p>	<p>In diabetic patients, alcohol may impact blood glucose levels. Both hypoglycemia and hyperglycemia could happen depending on how much and frequently the patient drinks. If a patient has uncontrolled diabetes, triglycerides, neuropathy, or pancreatitis, they should refrain from drinking (Drugs, 2023).</p>

<b>Does any of the client's past medical history contradict the use of this medication?</b>	None of the client's past medical history contradicts the use of this medication.
<b>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)</b>	The client is taking Levemir for her type 2 diabetes. Levemir is a long-acting insulin that starts to work several hours after injection and keeps working evenly for up to 24 hours. Levemir improves blood sugar control in people with diabetes mellitus (Drugs, 2023).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"> <li>1. Never share a Levemir injection pen or syringe with another person, even if the needle has been changed (Drugs, 2023).</li> <li>2. Many other drugs can potentially interfere with the effects of Levemir. You must tell your doctor about your prescription and over-the-counter medications (Drugs, 2023).</li> </ol>
<b>How much would medication cost per month if paying out of pocket?</b>	100 units/mL Levemir subcutaneous solution for \$333.97 per month.
<b>Drug # 7</b>	<b>Drug Name (Generic): Insulin Aspart</b>  <b>Drug Name (Trade): Novolog</b>

	<b>Drug Class: Antidiabetics</b>
<b>How is the medication taken: (include dose, route, and frequency)</b>	Per sliding scale SC AC & HS
<b>Specific Directions not included above:</b>	After using it, the client should eat a meal within 5 to 10 minutes.
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	<p>Novolog + aspirin: Using aspirin with insulin or other diabetes medications may increase the risk of hypoglycemia (Medscape, 2023).</p> <p>Novolog + glyburide: Using glyburide together with insulin aspart can increase the risk of hypoglycemia (Medscape, 2023).</p>
<b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc. )</b>	Alcohol consumption may affect blood glucose levels in diabetes individuals. Both hypoglycemia and hyperglycemia may occur, depending on how much and frequently the patient drinks. Patients with uncontrolled diabetes, high triglycerides, neuropathy, or pancreatitis should avoid drinking (Drugs, 2023).

<b>Does any of the client's past medical history contradict the use of this medication?</b>	None of the past medical histories contradicts the use of this medication.
<b>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)</b>	The client is taking Novolog for her type 2 diabetes. Novolog is a fast-acting insulin that starts to work about 15 minutes after injection, peaks in about 1 hour and works for 2 to 4 hours. Insulin is a hormone that works by lowering glucose levels in the blood (Drugs, 2023).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"> <li>1. Do not use Novolog if you are having an episode of hypoglycemia (Drugs, 2023).</li> <li>2. Never share an injection pen or cartridge with another person. Sharing injection pens or cartridges can allow diseases such as hepatitis or HIV to pass from one person to another (Drugs, 2023).</li> </ol>
<b>How much would medication cost per month if paying out of pocket?</b>	100 units/mL generic Novolog subcutaneous solution for \$161.85 per month.
<b>Drug # 8</b>	<b>Drug Name (Generic): ranibizumab</b>  <b>Drug Name (Trade): Lucentis</b>

	<b>Drug Class: Anti-angiogenic ophthalmic agents</b>
<b>How is the medication taken: (include dose, route, and frequency)</b>	0.5 mg via intravitreal injection (given at doctor's office) once a month
<b>Specific Directions not included above:</b>	Medication may cause blurred vision. Be careful if driving or doing anything that requires you to be able to see clearly (Drugs, 2023).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	Ranibizumab does not interact with any of the other medications on the list.
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc. )</b>	No lifestyle interaction information is available for this medication.
<b>Does any of the client's past medical history contradict the use of this medication?</b>	The client's medical history does not contradict the use of this medication.
<b>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</b>	The client is taking ranibizumab for her diabetic retinopathy. Ranibizumab treats the "wet form" of age-related macular degeneration. Ranibizumab is also used to treat swelling in the

<b>history, please list potential indications for use of the medication in general)</b>	retina caused by diabetes or a blockage in the blood vessels (Drugs, 2023).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"> <li>1. Clients should not receive ranibizumab if they are allergic to it or have any infection in or around their eyes (Drugs, 2023).</li> <li>2. Call the doctor immediately if you have sudden vision problems, eye pain, or redness or if your eyes are more sensitive to light (Drugs, 2023).</li> </ol>
<b>How much would medication cost per month if paying out of pocket?</b>	0.5 mg for \$1575 per dose once a month.
<b>Drug # 9</b>	<p><b>Drug Name (Generic): gabapentin</b></p> <p><b>Drug Name (Trade): Neurontin</b></p> <p><b>Drug Class: Gamma-aminobutyric acid analogs</b></p>
<b>How is the medication taken: (include dose, route, and frequency)</b>	300 mg by mouth TID
<b>Specific Directions not included above:</b>	Avoid driving or hazardous activity until you know how gabapentin will affect you. Do not stop using gabapentin suddenly, even if you feel fine. Gralise and Horizant should be taken

	with food. Swallow the capsule or tablet whole and do not crush, chew, break, or open it. (Drugs, 2023).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	Gabapentin does not interact with any other medication on the list.
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc. )</b>	Alcohol might intensify the negative effects of gabapentin on the neurological system, including lightheadedness, sleepiness, and difficulty concentrating. Additionally, a cognitive and judgmental impairment may be experienced by some persons. While taking gabapentin, you should limit or avoid drinking alcohol (Drug, 2023).
<b>Does any of the client's past medical history contradict the use of this medication?</b>	The client's medical history does not contradict the use of this medication.
<b>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</b>	The client is taking gabapentin for her diabetic neuropathy. This medication treats partial seizures, nerve pain from shingles, and restless leg syndrome. It works on the chemical messengers in the brain and nerves (Drugs, 2023)

<b>medication in general)</b>	
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"> <li>1. Teach the client not to stop using gabapentin suddenly (Drugs, 2023).</li> <li>2. Inform the client that gabapentin can cause life-threatening breathing problems, especially if you already have a breathing disorder or use other medicines that can make you drowsy or slow your breathing (Drugs, 2023)</li> </ol>
<b>How much would medication cost per month if paying out of pocket?</b>	\$8.24 for Gabapentin 300 mg.
<b>Drug # 10</b>	<p><b>Drug Name (Generic): Ibuprofen</b></p> <p><b>Drug Name (Trade): Advil</b></p> <p><b>Drug Class: NSAID</b></p>
<b>How is the medication taken: (include dose, route, and frequency)</b>	400 mg by mouth every six hours as needed
<b>Specific Directions not included above:</b>	Take ibuprofen tablets, capsules, granules or liquid with a meal or snack, or with a drink of milk. It will be less likely to upset your stomach. If you take it just after food, ibuprofen may

	take longer to start working (NHS, 2021).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	<p>ibuprofen + aspirin: Frequent or regular use of ibuprofen may reduce the effectiveness of aspirin if you are taking it to prevent heart attacks or strokes. Combining these medications may increase your risk of developing gastrointestinal ulcers and bleeding (Medscape, 2023).</p> <p>ibuprofen + glyburide: Using ibuprofen with insulin or other diabetes medications may increase the risk of hypoglycemia (Medscape, 2023).</p>
<b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc. )</b>	Using alcohol or tobacco with certain medicines may also cause interactions to occur, such as abdominal pain, acid or sour stomach, belching, bloating, cloudy urine, decrease in the amount of urine, decrease in urine output or decrease in urine-concentrating ability, diarrhea, difficulty having a bowel movement (stool), excess air or gas in stomach or intestines full feeling, heartburn, indigestion, itching skin, pain or discomfort in the chest, upper stomach, or throat, pale skin, passing gas, nausea, noisy, rattling breathing, a rash with flat lesions or small raised lesions on the skin, shortness of breath swelling of face, fingers, hands, feet, lower legs, or ankles, troubled breathing at rest troubled breathing with exertion, unusual

	bleeding or bruising, unusual tiredness or weakness, vomiting, and weight gain (NHS, 2021).
<b>Does any of the client's past medical history contradict the use of this medication?</b>	The client's medical history does not contradict the use of this medication.
<b>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)</b>	The client's indication for using this medication is diabetic neuropathy pain. Ibuprofen is a nonsteroidal anti-inflammatory drug (NSAID). It works by reducing hormones that cause inflammation and pain in the body (Drugs, 2023).
<b>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</b>	<ol style="list-style-type: none"> <li>1. Teach clients to take ibuprofen with food or milk to lessen stomach upset (Drugs, 2023).</li> <li>2. Inform the client not to exceed 3200 mg daily. (Drugs, 2023).</li> </ol>
<b>How much would medication cost per month if paying out of pocket?</b>	\$3.99 for ibuprofen 400mg.

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

Amy has good health insurance that covers the cost of her prescription medication, which will make it practical for her to manage her Type 2 Diabetes, diabetic retinopathy, diabetic neuropathy, and osteoporosis. Ranibizumab is given at the doctor's office and might be challenging to maintain because Amy does not have a driver's license. Amy has no family nearby to help her control her diabetic medication could also be a difficulty in maintaining compliance.

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

Amy has adequate healthcare, which makes accessing and affording her medication easier. Amy's accessible health care and insurance allow her to afford diabetic medicines. Amy's living arrangements allow her pharmacy to send her accu-pacs, or weekly pre-filled prescription packs, every week. The date and time of administration are labeled on the pre-filled package; this will help Amy keep track of her prescriptions.

**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)**

To decrease the risk for potential interactions, educate the client to take the medication as prescribed. This means following instructions such as taking some medication with food, taking the medication at a consistent time, and being aware of the potential side effects of each medication. One possible suggestion is medication reduction. Vitamins and supplements can be replaced with adequate nutritional meal intake from nutritious food. Another approach will be to examine whether or not this patient has some duplicates of medications. If the medication is being duplicated or some may fulfill multiple purposes, using one instead of two is better. For example, Calcium is in Multivitamin supplements and is duplicated. Changing the frequency of Ibuprofen and Colace from scheduled medication to as-needed can be reviewed. In other approaches, we can look at whether or not some medications were used and are no longer needed so that those medications can be removed because they already fulfill their intended purpose as we reconcile the patient's medication list.

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

$\$9.73 + \$2.99 + \$5.18 + \$3.23 + \$9.99 + \$333.97 + \$161.85 + \$1575 + \$8.24 + \$3.99 = \$2,101.45$  monthly out of pocket total.

**Reflective Statement of Experience:**

Miranda: The project was successful. We all contributed equally to the teamwork required to complete this task. Roxanne took on the first five medications, and I took the last five medications. The questions were equally divided. When necessary, we took the time to explain things and had effective communication. We shared websites with helpful information and worked productively to complete the project. While working on this project, I learned more about the risks of polypharmacy for clients and the significance of carefully reconciling each patient's medications.

Roxanne's Reflection: This project helped me picture the client's situation and help me understand the reason for noncompliance in some clients. Thinking about medication interactions and indications based on the client helped me practice my critical thinking skill. Polypharmacy is a case where less is more. It taught me that it is important to ensure that elderly clients take only the medications that will benefit them and improve their quality of life. It helped me connect the relationship between polypharmacy and incidence, such as falls in the elderly that was possibly caused by adverse effect from drug interactions. It also made me think and put myself in the position of the client. For example, the medication Ranibizumab is expensive. Even if the client has insurance is a great help.

### References

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## N322 Polypharmacy Grading Rubric

Criteria	Excellent	Acceptable	Unacceptable	Points Earned
	40 points	31-39 points	0-30 points	

<p>Each drug should have a completed breakdown within the tables provided, which includes the following:</p> <ul style="list-style-type: none"> <li>● Drug class</li> <li>● Generic name</li> <li>● Trade name</li> <li>● How is the medication taken (include dose, route, frequency)</li> </ul>	<p>All key components were addressed within the paper and were accurate.</p>	<p>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)</p>	<p>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)</p>	<p>___/40</p>
<p><b>Criteria</b></p>	<p><b>Excellent</b></p> <p><b>10 points</b></p>	<p><b>Acceptable</b></p> <p><b>8-10 points</b></p>	<p><b>Unacceptable</b></p> <p><b>0 - 7 points</b></p>	<p><b>Points Earned</b></p>
<p>Specific Directions not</p>	<p>All key components were addressed</p>	<p>The student did list some of the</p>	<p>Student failed to</p>	<p>___/10</p>

<p>included above:</p> <ul style="list-style-type: none"> <li>● Is there any type of medication on the patient list that have specific directions? (before bed, before breakfast, 30 minutes before meals, etc..)</li> </ul>	<p>within the paper.</p>	<p>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>answer the questions and/or the answers were inaccurate. (For each medication this question is worth one point)</p>	
<p><b>Criteria</b></p>	<p><b>Excellent</b></p> <p><b>0 points</b></p>	<p><b>Acceptable</b></p> <p><b>16-19</b></p>	<p><b>Unacceptable</b></p> <p><b>0-15 points</b></p>	<p><b>Points Earned</b></p>
<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-</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</p>	<p>Student failed to answer question and/or The student did list some of the potential interactions of the</p>	<p>___/20</p>

<p>administration?</p> <ul style="list-style-type: none"> <li>● Do any of the medications interact with each other?</li> </ul> <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 when considering each medication)</p>		<p>listed this question is worth two points)</p>	<p>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>	
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Criteria	Excellent 5 points	Acceptable 4 points		Unacceptable 0 -3 points	Points Earned
Lifestyle interactions:  ● 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"> <li>Does any of the client's past medical history contradict the use of this medication?</li> </ul>	Student showed knowledge why the client's past medical history would contradict the use of the medication(s).	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	Student failed to answer question 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	___/10

Criteria	Excellent 10 points	Acceptable 8-9 points	Unacceptable 0-7 points	Points Earned
<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>Student showed knowledge of medications and what conditions corresponds with medications</p>	<p>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)</p>	<p>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)</p>	<p>___/10</p>
Criteria	Excellent	Acceptable	Unacceptable	Points Earned

	<b>20 points</b>	<b>16-19 points</b>	<b>0-15 points</b>	
<p>What would you teach the client about taking this medication?</p> <ul style="list-style-type: none"> <li>● What education is needed for the medication? (For each medication listed the student must prioritize two topics for client education)</li> </ul> <p>(You must consider all component(s) of the medication list when answering this question... if</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>there are potential interactions with other medication this may be a priority over general education for this one medication)</p>				
<p><b>Criteria</b></p>	<p><b>Excellent</b>  <b>10 points</b></p>	<p><b>Acceptable</b>  <b>8-9 points</b></p>	<p><b>Unacceptable</b>  <b>0-7 points</b></p>	<p><b>Points Earned</b></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"> <li>● Why would the patient have difficulty</li> </ul>	<p>Student had knowledge on why a patient would have difficulty with medication regiment</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 indicate a reason OR an appropriate reason for some of the medications (This question is worth one point for each</p>	<p>___/10</p>

<p>maintaining the medication regimen?</p> <p>(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc)</p>			<p>medication)</p>	
<p><b>Criteria</b></p>	<p><b>Excellent</b></p> <p><b>10 points</b></p>	<p><b>Acceptable</b></p> <p><b>8-9 points</b></p>	<p><b>Unacceptable</b></p> <p><b>0-7 points</b></p>	<p><b>Points Earned</b></p>
<p>Is there anything about this medication regimen/ scenario that might assist the client in maintaining the medication regimen as ordered?</p>	<p>Student had knowledge on medication compliance</p>	<p>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</p>	<p>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</p>	<p>___/10</p>

<p>● What factors are present to remain compliant?</p> <p>(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc.</p>		<p>question is worth one point for each medication)</p>	<p>that assist with compliance. (This question is worth one point for each medication)</p>	
<p><b>Criteria</b></p>	<p><b>Excellent</b></p> <p><b>15 points</b></p>	<p><b>Acceptable</b></p> <p><b>8-9 points</b></p>	<p><b>Unacceptable</b></p> <p><b>0 points</b></p>	<p><b>Points Earned</b></p>
<p>● How much would this medication cost per month if the patient were to pay</p>	<p>Student showed research on medication costs</p>	<p>The student provided accurate research for some of the medications, but failed to provided research for all medications (This question is</p>	<p>Student failed to answer the question OR The student provided accurate research for some of the medications, but failed to provided research for all</p>	<p>___/15</p>

<p>for them out of pocket? (best assessment based off of research)</p> <ul style="list-style-type: none"> <li>● What would the client’s monthly out of pocket expense for all 10 medications?</li> </ul>		<p>worth one point for each medication, with the total cost being worth 5 points)</p>	<p>medications (This question is worth one point for each medication, with the total cost being worth 5 points)</p>	
<p><b>Criteria</b></p>	<p><b>Excellent</b></p> <p><b>20 points</b></p>	<p><b>Acceptable</b></p> <p><b>16-19 points</b></p>	<p><b>Unacceptable</b></p> <p><b>0-15 points</b></p>	<p><b>Points Earned</b></p>
<p>The student must appropriately format the paper and include all of the following:</p> <ul style="list-style-type: none"> <li>● Entire document</li> </ul>	<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>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 per APA is worth one point)</p> <ul style="list-style-type: none"> <li>● The student provided a rubric attached for grading (3 points)</li> <li>● The student included the provided client scenario on page two of the document (2</li> </ul>				
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<p>points)</p> <ul style="list-style-type: none"> <li>● The paper included a minimum of five references which were cited within the document (each reference with one citation is worth 5 points)</li> </ul>				
<p><b>Criteria</b></p>	<p><b>Excellent</b> <b>20 points</b></p>	<p><b>Acceptable</b> <b>16-19 points</b></p>	<p><b>Unacceptable</b> <b>0-15 points</b></p>	<p><b>Points</b> <b>Earned</b></p>
<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</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</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>potential for interaction(s) through medication reduction, other potential medications, diet changes, lifestyle changes, etc)</p> <p>Elaborate on this, explaining why you feel it should be addressed, why it is priority and provide evidence behind your presentation.</p>		<p>question/suggestion/issue within the scenario that should have been addressed.</p>		
<p><b>Criteria</b></p>	<p><b>Excellent</b></p>	<p><b>Acceptable</b></p>	<p><b>Unacceptable</b></p>	<p><b>Points Earned</b></p>

	10 points	8-9 points	0-7 points	
<p>● Reflective statement of experience should include the following:</p> <ul style="list-style-type: none"> <li>-insight into the project itself (a specific example within the project and its implications)</li> <li>-A basic understanding of polypharmacy</li> <li>-A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</li> </ul>	<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</p> <ul style="list-style-type: none"> <li>-insight into the project itself (a specific example within the project and its implications).</li> <li>-A basic understanding of polypharmacy</li> <li>-A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</li> </ul>	<p>Student failed to reflect on their project OR the student addressed only of the topics of reflection</p>	<p>___/10</p>

<b>Total Points</b>				<u>    </u> /200
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