

Polypharmacy Project

Junmian Zhao, BSN Student

McKenzie Noel, BSN Student

N322 Introduction to Pharmacology

Lakeview College of Nursing

Gina Brassard MSN, RN or Brittany Lawson MSN, RN

Date 3/20/2021

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

Polypharmacy Case 9

Patient: Kathryn is a 58-year-old female, she is 5'9", and weigh 175 lbs. she lives alone in a third story apartment. She has no family in the area for support. She recently lost her job and insurance. She smokes a pack of cigarettes per day but is trying to quit. She has a history of diabetes type 1, diabetes neuropathy, hypertension, hyperlipidemia, depression, insomnia and GERD. She is allergic to codeine and latex. Her medication listed as following:

Novolin R 10 units each meal (TID) SubQ

Novolog sliding scale SubQ PRN.

Gabapentin 400mg TID PO.

Aspirin 81 mg by mouth once a day.

Benicar HCT 20 mg/25mg po daily.

POLYPHARMACY

Lexapro 20 mg by mouth once daily.

Ambien CR 12.5 mg as needed at bedtime.

Protonix 40 mg daily PO.

Conjugated g-estrogens (Premarin) 0.625 mg daily PO.

Atorvastatin 20 mg PO daily.

Drug #1 Drug Class: Antidiabetic/ Human insulin	Drug Name (Generic): Insulin regular (human) Drug Name (Trade): Novolin R
How is the medication taken: (include dose, route, and frequency)	The client should take 10 units of the drug with each meal three times a day subcutaneously.
Specific Directions not included above:	<ul style="list-style-type: none"> ● Novolin R should be administered by subcutaneous injection in the abdominal region, buttocks, thigh, or the upper arm, and given 30 minutes prior to the start of a meal. ● Rotate the injection sites to prevent the risk of lipodystrophy. Injection into a lifted skin fold minimizes the risk of intramuscular injection.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Hydrochlorothiazide interferes the control of blood glucose, decrease of insulin effectiveness.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	There is no information about whether the patient involved with drugs and alcohol except smokes a pack of cigarettes per day. There is no evidence that smoking interacts with insulin regular, but smoking may decrease effectiveness of insulin.
Does any of the client's past medical history	The client has a history of type 1 diabetes mellitus, diabetic neuropathy, HTN,

contradict the use of this medication?	hyperlipidemia, depression, insomnia and GERD. Novolin R is a short-acting recombinant human insulin indicated to improve glycemic control in adults and children with diabetes mellitus. Novolin R is used to treat this client's type 1 DM.
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)	Novolin R is a short-acting recombinant human insulin indicated to improve glycemic control in adults and children with diabetes mellitus. Novolin R is used to treat this client's type 1 DM.
What would you teach the client about taking this medication?	<ul style="list-style-type: none"> ● Know the name and purpose of the drug. ● Administer the drug as prescribed, do not skip, do not change the dose by herself. ● Regular insulin is clear, colorless liquid. If it is cloudy, do not use it. ● Know the sites where to administer the drug and rotate the site (change the site within chosen area). ● Know when, 30 minutes prior to start of the meal, and how, pinch about 1 inch of skin to administer. ● Know how to prepare, push same amount of air into the vial then withdraw the prescribed amount of drug. ● Know result of overdose, hypoglycemia, and its signs and symptoms. Know result of skipping drug, hyperglycemia, and its signs and symptoms. ● Tell the patient what blood sugar range she should stay safe with. And know how to check her blood sugar.

How much would medication cost per month if paying out of pocket?	The patient can spend around \$225/month at Walmart Pharmacy without insurance or utilize a discount.
--	---

Drug #2 Drug Class: Antidiabetic/Insulin	Drug Name (Generic): Insulin aspart Drug Name (Trade): Novolog
How is the medication taken: (include dose, route, and frequency)	Sliding scale SubQ PRN
Specific Directions not included above:	<ul style="list-style-type: none"> ● Inject Novolog subcutaneously within 5-10 minutes before a meal into the abdominal area, thigh, buttocks or upper arm. ● Rotate injection sites within the same region from one injection to the next to reduce the risk of lipodystrophy. ● Novolog administered by subcutaneous injection should generally be used in regimens with an intermediate-or long-acting insulin. ● Novolog may be diluted with Insulin Diluting Medium for Novolog for subcutaneous injection. Diluting one-part Novolog to nine parts diluents will yield a concentration one-tenth that of Novolog (equivalent to U-10). Diluting one-part Novolog to one part diluent will yield a concentration one-half that of Novolog (equivalent to U-50).

Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Hydrochlorothiazide interferes the control of blood glucose, decrease of insulin effectiveness.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	The patient should avoid alcohol or use prescription or over-the-counter medicines that contain alcohol. She needs to ask her primary provider if take any OTC drugs. Cigarette smoking can increase the risk of developing type II DM.
Does any of the client's past medical history contradict the use of this medication?	Novolog is contraindicated to the patient with hypersensitivity to Novolog or patient with DM during episodes of hypoglycemia. The patient has no past medical history 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 patient has history of type I DM. Insulin aspart is a rapid-acting, human insulin analog that is FDA approved for the treatment of type-1 and type-2 diabetes mellitus to improve glycemic control in adults and children.
What would you teach the client about taking this	<ul style="list-style-type: none"> ● Know how to check blood sugar.

medication?	<ul style="list-style-type: none"> ● The reason that the patient is taking the medication. ● Novolog is clear, colorless liquid. If it is cloudy, do not use it. ● Know the sites where to administer the drug and rotate the site (change the site within chosen area). ● How to read the sliding scale to determine the units she should draw. ● Administer it 5-10 minutes before meals. ● Lifestyles change such as avoidance of alcohol, smoking cessation, weight management, exercise, diet high in lean protein, fiber, low in fat, salt, and simple sugar. ● S&S of hypoglycemia and hyperglycemia. ● Better store the insulin in fridge if do not use is within 30 days.
How much would medication cost per month if paying out of pocket?	Assume the patient uses 10 units/day. By using GoodRx free coupon, this drug costs around \$20 at Walgreen Pharmacy.

Drug #3	Drug Name (Generic): Gabapentin
Drug Class: Anticonvulsant/ Gaba analog	Drug Name (Trade): Gralise
How is the medication taken: (include dose, route, and frequency)	400 mg of the drug is taken by mouth three times a day.
Specific Directions not included above:	There are three forms of gabapentin, horizant, gralise and neurontin.

	<p>Horizant should not be taken during the day, for the best results, take horizant with food at about 1700 in the evening.</p> <p>Both gralise and horizant should be taken with food.</p> <p>Neurontin can be taken with or without food.</p> <p>Do not stop abruptly.</p> <p>Do not crush, chew, break.</p> <p>If missed the dose, take the medicine as soon as you can, but skip the missed dose if it is almost time for your next dose. Do not take two doses at one time.</p> <p>If she is taking horizant, skip the missed dose and use the next dose at the regular time. Do not use two doses of horizant at one time.</p>
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<p>Concurrent use with Lexapro can increase risk for hyponatremia.</p> <p>When take with Ambien CR, the patient may have increased drowsiness inability to think clearly.</p>
<p>Lifestyle interactions:</p> <p>(Daily tobacco use, alcohol, drugs, etc.)</p>	<p>Avoid driving or hazardous activity until she knows how this medicine will affect her.</p> <p>Avoid taking an antacid within 2 hours before or after she takes gabapentin. Antacids can make it harder for the body to absorb gabapentin.</p> <p>Avoid drinking alcohol while taking gabapentin.</p>
<p>Does any of the client's past medical history contradict the use of this medication?</p>	<p>This drug acts as sedative, some people have thoughts about suicide while taking this drug. The patient has history of depression, in this case, be close to monitor the patient's mood or symptoms of depression.</p>

<p>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)</p>	<ul style="list-style-type: none"> ● Gabapentin is used together with other medicines to treat partial seizures in adults and children at least 3 years old. ● Gabapentin is also used to treat nerve pain caused by herpes virus or shingles (herpes zoster) in adults. <p>Use only the brand and form of gabapentin your doctor has prescribed. Check your medicine each time you get a refill to make sure you receive the correct form.</p> <ul style="list-style-type: none"> ● Gralise is used only to treat nerve pain. ● Horizant is used to treat nerve pain and restless legs syndrome (RLS). ● Neurontin is used to treat nerve pain and seizures. <p>The patient has history of diabetic neuropathy, Gabapentin (Neurontin) treats the patient's never pain caused by neuropathy.</p>
<p>What would you teach the client about taking this medication?</p>	<ul style="list-style-type: none"> ● Take it as prescribed. ● Take it with meals. ● Do not crush, chew or break. ● Do not stop abruptly. ● If miss the dose, do not take two doses at one time. ● Avoidance of alcohol.
<p>How much would medication cost per month if paying out of pocket?</p>	<p>By using GoodRx free coupon, this drug cost around \$5/month at Kroger Pharmacy.</p>

<p>Drug #4</p> <p>Drug Class: NSAID</p>	<p>Drug Name (Generic): Aspirin</p> <p>Drug Name (Trade): Bayer</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>The patient takes the drug 81 mg by mouth once a day.</p>
<p>Specific Directions not included above:</p>	<ul style="list-style-type: none"> ● Drink a full glass of water with each dose. ● Adults and children 12 years and over: take 1 or 2 tablets every 4 hours or 3 tablets every 6 hours, not to exceed 12 tablets in 24 hours.
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<ul style="list-style-type: none"> • Co-administration of NSAIDs with angiotensin II receptor antagonists (including olmesartan medoxomil) may result in deterioration of renal function, including possible acute renal failure. These effects are usually reversible. Monitor renal function periodically in patients receiving olmesartan medoxomil and NSAID therapy. • In some patients the administration of a NSAID can reduce the diuretic, natriuretic, and antihypertensive effects of thiazide diuretics (Benicar HCT in this case). Therefore, monitor blood pressure closely.

	<ul style="list-style-type: none"> • Increase risk of bleeding when take together with Lexapro. • Increase risk of bleeding when take together with Protonix.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	If the patient consumes 3 or more alcoholic drinks every day, she should ask the doctor whether she should take aspirin or other pain relievers/fever reducers.
Does any of the client's past medical history contradict the use of this medication?	Aspirin can irritate esophagus and cause heartburn pain.
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 history of diabetic neuropathy and hyperlipidemia. Aspirin can reduce mild to moderate pain. Aspirin can also act as blood thinner to prevent cardiovascular disease, peripheral vascular disease, and cerebrovascular disease.
What would you teach the client about taking this medication?	<ul style="list-style-type: none"> ● Teach the patient the side effects of aspirin, such as GI bleeding. ● Avoid alcohol, alcohol can increase the risk of GI bleeding.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug cost around \$2/month at Kroger Pharmacy.

<p>Drug #5</p> <p>Drug Class: ARB/HCTZ combos. / Antihypertensive</p>	<p>Drug Name (Generic): Olmesartan medoxomil-hydrochlorothiazide</p> <p>Drug Name (Trade): Benicar HCT</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>Take Benicar/20mg, HCT/25mg by mouth once a day.</p>
<p>Specific Directions not included above:</p>	<p>Can take with or without food.</p> <p>Better take this combo drug at least 4 hours before bedtime to prevent having to get up to urinate.</p>
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<p>Co-administration of NSAIDs with angiotensin II receptor antagonists (including olmesartan medoxomil) may result in deterioration of renal function, including possible acute renal failure. These effects are usually reversible. Monitor renal function periodically in patients receiving olmesartan medoxomil and NSAID therapy.</p> <p>In some patients the administration of a NSAID can reduce the diuretic, natriuretic, and antihypertensive effects of thiazide diuretics. Therefore, monitor blood pressure closely.</p> <p>Hydrochlorothiazide reduce the effectiveness of insulin NPH. Even though the patient does not have insulin NPH, but still need monitor blood sugar level closely because HCTZ interfere blood glucose control.</p>
<p>Lifestyle interactions:</p> <p>(Daily tobacco use, alcohol, drugs, etc.)</p>	<p>Drinking alcohol can further lower your blood pressure and may cause side effects.</p> <p>Cigarette smoking can raise blood pressure, encourage the patient to quit smoking since she is willing to stop smoking.</p>

<p>Does any of the client's past medical history contradict the use of this medication?</p>	<p>There is no information showing that the patient's PMH contradict the use of this drug combos.</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>The patient has a history of HTN, Benicar HCT is a prescription medicine used to treat the symptoms of High Blood Pressure (Hypertension)</p>
<p>What would you teach the client about taking this medication?</p>	<ul style="list-style-type: none"> ● Educate the patient the purpose of the drug, and the shape, color according to the dose of drug she has. ● Follow the doctor's prescription. ● Teach the patient how to take blood pressure. And tell the patient to monitor the blood pressure daily (maybe same time in the morning). ● Do not use this combo drug together with any medication that contains aliskiren because she is diabetes. ● Avoid take alcohol, smoking cessation. ● Take the missed dose asap. Skip the dose if it is almost the time for next scheduled dose. Do not take two doses at one time. ● S&S of side effects and overdosed. If it happens, contact the doctor or call 911. ● Do not take potassium supplement or salt substitute without consulting with doctor.

How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs \$18/month at Kroger Pharmacy.

Drug #6	Drug Name (Generic): Escitalopram
Drug Class: SSRI/Antidepressant	Drug Name (Trade): Lexapro
How is the medication taken: (include dose, route, and frequency)	20mg, by mouth oral, daily.
Specific Directions not included above:	Do not chew, take with a glass of water, take your dose in the morning or at night.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Taking Ambien with Lexapro can cause increased drowsiness, taking with Gabapentin can increase risk for hyponatremia. Taking with aspirin increases risk of bleeding.
Lifestyle interactions:	Avoid alcohol use when taking.

(Daily tobacco use, alcohol, drugs, etc.)	
Does any of the client's past medical history contradict the use of this medication?	No contradictions with past medical history
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)	Lexapro is type of antidepressant called a selective serotonin reuptake inhibitor (SSRI) used to treat anxiety in adults and major depressive disorder in adults and adolescents. Patient may be taking medication for anxiety from losing her job.
What would you teach the client about taking this medication?	May take several weeks to see an effect of the drug. Take as prescribed by your doctor. May start on a lower dose and increase the amount after one week.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs around \$15/month at Meijer pharmacy.

Drug #7	Drug Name (Generic): Ambien CR
----------------	---------------------------------------

Drug Class: Hypnotic	Drug Name (Trade): Zolpidem
How is the medication taken: (include dose, route, and frequency)	12.5 mg, by mouth oral, as needed at bedtime.
Specific Directions not included above:	Do not drink alcohol with this medication. May work faster on empty stomach. Do not take with food.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	When taking with Gabapentin you will have increased drowsiness and inability to think clearly. When taking with Lexapro you may have increased drowsiness and inability to think clearly.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid alcohol when taking this medication.
Does any of the client's past medical history contradict the use of this medication?	No contradictions with past medical history.
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	Zolpidem is used to treat sleeping problems. If you have trouble falling asleep, it helps you fall asleep faster, so you can get a better night's rest. The patient may be taking this medication due to anxiety related to losing her job and so not being able to sleep.

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 with food. Avoid driving or using heavy machinery. May cause you to feel sleepy in the morning.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs \$25/month at Meijer Pharmacy.

Drug #8 Drug Class: Antiulcer	Drug Name (Generic): Pantoprazole Drug Name (Trade): Protonix
How is the medication taken: (include dose, route, and frequency)	40mg, by mouth oral, daily.

Specific Directions not included above:	Do not chew or crush. Drink water when taking this medication. Take medication 30 minutes to an hour before eating.
Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)	Taking with aspirin may cause bleeding problems. Taking with atorvastatin can increase side effects such as liver damage and rhabdomyolysis and may affect the effects of atorvastatin.
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	No lifestyle changes but smoking cessation and not drinking alcohol could help decrease conditions related to why the patient is taking the medication.
Does any of the client's past medical history contradict the use of	Smoking cessation could help with conditions related to the use of Protonix
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)	Patient has history of GERD and is taking this medication to reduce acid production.
What would you teach the client about taking this	Do not crush or chew Protonix.

medication?	Can be taken with or without food. If you have trouble taking Protonix request 2 smaller dosage pills that add up to the correct dosage.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs around \$10/month at Kroger Pharmacy.

Drug #9	Drug Name (Generic): conjugated estrogens
Drug Class: Estrogen derivative	Drug Name (Trade): Premarin
How is the medication taken: (include dose, route, and frequency)	0.625 mg, by mouth oral, daily.
Specific Directions not included above:	Take with a glass of water. Take it on a convenient day. Don't drink grapefruit juice.
Does this medication interact with any other medication(s) on this list? (see rubric for further	Taking with atorvastatin may increase plasma concentrations for estrogen and progestin, and increase BP.

instruction)	
Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)	Avoid smoking this can increase risk for blood clots. Drinking alcohol with Estrogen may be linked to breast cancer.
Does any of the client's past medical history contradict the use of this medication?	Hyperlipidemia can cause high levels of triglycerides. Hypertension is contraindicated with Estrogen as it can cause hypertension and is an increased risk for myocardial infarction and stroke.
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 treats symptoms of menopause and prevent osteoporosis. In this case, there is no further information about s/s of menopause, so that, she takes this drug to prevent osteoporosis.
What would you teach the client about taking this medication?	Avoid smoking. If a dose is missed do not take an extra dose to make up. Take as directed.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs around \$180 at Walgreen Pharmacy.

<p>Drug #10</p> <p>Drug Class: HMG-CoA reductase inhibitors (Statin)</p>	<p>Drug Name (Generic): Atorvastatin</p> <p>Drug Name (Trade): Lipitor</p>
<p>How is the medication taken: (include dose, route, and frequency)</p>	<p>20mg, by mouth oral, daily.</p>
<p>Specific Directions not included above:</p>	<p>Take with or without food.</p> <p>Take the medicine at the same time every day.</p> <p>Do not chew or crush unless the doctor instructs you to do so.</p>
<p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p>	<p>Taking with Premarin can cause hypertension, and increase plasma concentrations for estrogen and progestin, and increase BP.</p> <p>Taking with Protonix can cause liver damage and rhabdomyolysis.</p>
<p>Lifestyle interactions:</p>	<p>Drinking alcohol on this medication may cause liver problems.</p> <p>Do not drink grapefruit juice.</p>

(Daily tobacco use, alcohol, drugs, etc.)	
Does any of the client's past medical history contradict the use of this medication?	This medication is contraindicated with diabetes.
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 control the patient's hyperlipidemia.
What would you teach the client about taking this medication?	Take the medicine at the same time every day. Do not chew or crush. Monitor triglycerides and cholesterol with frequent blood tests.
How much would medication cost per month if paying out of pocket?	By using GoodRx free coupon, this drug costs around \$ 5/month at Meijer pharmacy.

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

1. This patient has 10 drugs to deal with, it is not easy to memorize these drugs.
2. When severe side effects come up, the patient probably wants to give up some drugs. Such as Gabapentin, can put the patient at a risk of developing suicidal ideation because the patient has history of depression.
3. The cost of these drugs is more than \$500 a month, the patient lost her job, and she has no insurance. This is another challenge for her to keep compliance with the orders.
4. In order to get cheapest medication, the patient has to compare different pharmacy.

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

Even though the patient confronts many challenges to maintain compliance with the orders, there are still positive signs that she could do it. In the scenario, it is said that she wants to quit smoking, this is a positive thinking about the patient. She wants to do better; this will encourage her to maintain the medication regimen as ordered. Other than that, the medication she has to treat her depression, Lexapro, will also help her with a good mood to have the strength.

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)

1. The patient has a history of diabetic neuropathy and depression, the drug has been selected for her neuropathy is Gabapentin. Gabapentin has a side effect, which is increased risk of suicidal thoughts or behavior in patients taking these drugs for any indication (RxList, n.d.). I am concerning about Gabapentin will put the patient at the risk of suicide.
2. The patient has Aspirin daily, and she has a history of GERD. These two factors put the patient at risk of developing PUD.
3. The patient has 10 drugs, there many drugs interact with each other. The principle to manage these drugs are:
 - a. Administering thiazide 4 hours before bedtime.
 - b. Administering Ambien at bedtime.
 - c. Novolin R 30 minutes before each meal, Novolog 5-10 minutes before meal PRN.
 - d. Administering drugs 2 hours apart from each other if they have interactions.
4. Since alcohol interferes many drugs effectiveness, encourage the patient not to drink.
5. Smoking cessation can promote health.
6. Healthy life is associated with healthy diet such as low salt, fat, cholesterol, high fiber, lean meat, and adequate fluid intake (2 liters). In addition, exercise 40 minutes every day.

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

Without insurance, the patient will spend around \$520 out of her pocket by using GoodRx free coupon.

Reflective Statement of Experience:

This project is a good opportunity for the nursing student to learn how to think as a nurse, how to help the patient to manage polypharmacy. From this case, I learned:

1. First thing needed to know is the indication of the drug, why the patient is taken them.
2. What side effects we are expecting.
3. What interactions they have, how to manage the drugs to reduce interactions.
4. What lifestyle the patient needs to change.
5. How we should help the patient financially.

References

- U.S. Food and Drug Administration. *Novolin R injection label*. (2012, February). Retrieved March 21, 2021, from https://www.accessdata.fda.gov/drugsatfda_docs/label/2012/019938s066lbl.pdf
- U.S. Food and Drug Administration. *Cigarette smoking: A risk factor for type 2 diabetes*. (2020, May 4). Retrieved March 21, 2021, from <https://www.fda.gov/tobacco-products/health-information/cigarette-smoking-risk-factor-type-2-diabetes>
- RxList. (n.d.) *The Internet Drug Index for Prescription Drugs, Medications and Pill Identifier*. Retrieved April 02, 2021. From <http://www.rxlist.com>
- Drugsite Trust. (n.d.). *Prescription Drug Information, Interactions & Side Effects*. Retrieved April 03, 2021. From <http://drugs.com>
- GoodRx. (n.d.). *Stop paying too much for your prescriptions*. Retrieved April 03, 2021. From <http://www.goodrx.com>

N322 Polypharmacy Rubric

You will be given a scenario about your client with a list of medications. You will make sure your client is taking medications correctly, educate them on educations, and look for contradictions, costs, over the counter lifestyle factors & compliance with medications.

Please address all rubric items. Please include a reflection of your experience. You may place drugs in each separate paragraph or in a table. You must cite your source for each paragraph or table.

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 	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

taken (include dose, route, frequency)				
Criteria	Excellent 10 points	Acceptable 8-10 points	Unacceptable 0 - 7 points	Points Earned
Specific Directions not included above: <ul style="list-style-type: none"> Is there any type of medication on the patient list that have specific directions? (before bed, before breakfast, 30 minutes before meals, etc..) 	All key components were addressed within the paper.	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)	Student failed to answer the questions and/or the answers were inaccurate. (For each medication this question is worth one point)	___/10
Criteria	Excellent 0 points	Acceptable 16-19	Unacceptable 0-15 points	Points Earned
Does this medication have any potentially serious interactions with any other medication(s) on this list, and/or potential	All medications reviewed and student explained medication interactions.	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	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	___/20

<p>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 when considering each medication)</p>		medication listed this question is worth two points)	potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points)	
---	--	--	--	--

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 history contradict the use of this medication? 	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 worth one point)	Student failed to answer question or Student provided answers to the question(s), but failed to answer all the questions and/or the	___/10

			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 	Student showed the importance of medication education, and appropriate	The student provided some appropriate education for the client, but failed to capture all of the appropriately prioritized education for the	Student failed to answer the question OR The student provided	___/20

<p>medication? (For each medication listed the student must prioritize two topics for client education) (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>prioritized client education for the scenario provided.</p>	<p>client. (Each topic of education is worth one point)</p>	<p>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>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 regiment? <p>(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc)</p>	<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</p>	<p>___/10</p>

Criteria	Excellent 10 points	Acceptable 8-9 points	Unacceptable 0-7 points	Points Earned
<p>Is there anything about this medication regimen/ scenario that might assist the client in maintaining the medication regimen as ordered?</p> <ul style="list-style-type: none"> • What factors are present to remain compliant? <p>(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc.</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 question is worth one point for each medication)</p>	<p>(This question is worth one point for each medication)</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 that assist with compliance. (This question is worth one point for each medication)</p>	<p>___/10</p>
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 for them out of pocket? (best assessment based off of research) • What would the 	<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 worth one point for each medication, with the total cost being worth 5 points)</p>	<p>Student failed to answer the question OR The student provided accurate research for some of the</p>	<p>___/15</p>

<p>client's monthly out of pocket expense for all 10 medications?</p>			<p>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 per APA is worth one point) • The student provided a rubric attached for grading (3 points) • The student included 	<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>the provided client scenario on page two of the document (2 points)</p> <ul style="list-style-type: none"> 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 why you feel it should be addressed, why it is priority and provide evidence behind your presentation.</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>
Criteria	Excellent	Acceptable	Unacceptable	Points Earned

	10 points	8-9 points	0-7 points	
<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>