

Polypharmacy Project

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N322 Introduction to Pharmacology

Lakeview College of Nursing

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Patient: Kathryn is a 58-year-old female that lives alone in a third story apartment. She has no family in the area for support. She recently lost her job as secretary. She smokes a pack of cigarettes a day (30-year pack history) and is trying to stop smoking by using nicotine vapes. Kathryn has Type I diabetic diagnosed at age 4. Her last A1c was 7.8. This was done over 8 months ago.

Economics: Kathryn lost her job when her company was sold. She lost her insurance at the same time. She is actively looking for a job. She is drawing 250/week in unemployment benefits.

Insurance: She cannot afford Cobra benefits. She is too young to qualify for Medicare and may qualify for Medicaid at this time, but she has not applied stating she does not want 'charity'. She is very concerned about affording her medications. Currently she cannot afford to go to her provider for any visits as she has to pay out of pocket.

Medical history: Diabetes type 1, Diabetic neuropathy, hypertension, hyperlipidemia, depression, insomnia & gastroesophageal reflux disease

Allergies: Codeine & latex Wt 175 pounds Ht 5 ft. 9 in

Medications:

Novolin R 10 units prior to each meal (TID) SUBQ

Levimir 25 units daily SQ

Gabapentin 400 mg TID PO

Aspirin 81 mg by mouth once a day

Benicar HCT 20mg/25mg PO Daily

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 20mg PO Daily

Drug #1

Drug Name (Generic): Parenteral Insulin

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| | <p>Drug Name (Trade): Novolin R</p> <p>Drug Class: Antidiabetic</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>10 units prior to each meal (three times a day), subcutaneously</p> |
| <p>Specific Directions not included above:</p> | <p>Kathryn must inspect the vial before administration. Novolin R should be clear and colorless, do not use if particulates are seen floating in the vial or coloration is noted (drugs.com).</p> <p>Kathryn should rotate injection sites to avoid disrupting adipose tissue (drugs.com, 2025).</p> <p>Kathryn should clean the injection site with alcohol before injecting and dispose of the needle in an appropriate container; give one injection of 10 units 30 minutes prior to</p> |

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| | <p>each meal in the subcutaneous tissue of the abdomen (drugs.com, 2025).</p> <p>Kathryn should inject into intact skin only. She should not inject into scar tissue or tissue that is bruised, pitted, tender, thick, or scaly (Jones & Bartlett, 2024).</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>Selective serotonin reuptake inhibitors like Lexapro are associated with a risk of hypoglycemia in diabetic patients (drugs.com, 2025).</p> <p>Gabapentin causes dizziness and drowsiness which can make it more difficult for diabetic patients (like Kathryn) to recognize the signs of hypoglycemia (drugs.com, 2025).</p> <p>Aspirin may increase the risk of a drop in blood sugar in diabetic patients (like Kathryn) (drugs.com, 2025).</p> |
| <p>Lifestyle interactions:</p> | <p>The amount of carbohydrates we ingest can affect how much insulin our body needs, so</p> |

(Daily tobacco use, alcohol, drugs, etc.)

it is important to monitor your carbohydrate intake when taking insulin and focus on a well-balanced diet that contains lots of vegetables, whole grains, and lean proteins (Capriotti, 2020).

Novolin R's peak time can occur between 2-3 hours after injection, so it is important to space meals appropriately (Jones & Bartlett, 2024).

Alcohol affects blood sugar and should be consumed with caution while taking insulin (Jones & Bartlett, 2024).

Exercise can lower blood sugar and make insulin more effective, but blood sugar levels should be closely monitored before and after. Eat a small snack or drink juice before or after exercising according to your most recent blood sugar level (Capriotti, 2020).

Kathryn will benefit from maintaining a healthy weight (Capriotti, 2020).

Kathryn will benefit from maintaining a regular sleep schedule (Capriotti, 2020).

Smoking increases the risk of insulin resistance and may require Kathryn to take larger

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| | doses of Novolin R (drugs.com, 2025). |
| Does any of the client's past medical history contradict the use of this medication? | Hypertension does not directly contraindicate the use of Novolin R; however, Novolin R can cause an increase in blood pressure and patients with hypertension receiving Novolin R should be monitored for signs of hypertensive crisis and heart failure (drugs.com, 2025). |
| 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) | Kathryn has been prescribed Novolin R to treat her type 1 diabetes and control her blood sugar. |
| What would you teach the client about taking this medication? You must prioritize 2 (see rubric) | 1. It is necessary to educate patients taking Novolin R on the signs of hypoglycemia which include shaking, confusion, dizziness, and irritability. Diabetic patients who are experiencing symptoms of hypoglycemia should check their blood sugar immediately, consume 15g of fast-acting carbohydrates (such as fruit juice, regular soda, or hard |

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| | <p>candies), re-check their blood sugar, and eat a well-balanced snack to avoid another drop in their blood sugar (Capriotti, 2020).</p> <p>2. Patients taking Novolin R by subcutaneous injections should be educated on proper injection sites (like the abdomen [avoiding a 2-inch area around the belly button], and upper arm), and rotating injection sites (Jones & Bartlett, 2024).</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>Meijer's pharmacy offers 10mL of 100 units per mL of Novolin R for the cheapest price of \$46.77 (GoodRx, 2025).</p> |

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| <p>Drug #2</p> | <p>Drug Name (Generic): Long-acting Insulin</p> <p>Drug Name (Trade): Levemir</p> <p>Drug Class: Antidiabetic</p> |
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| | (Jones & Bartlett, 2024) |
| How is the medication taken: (include dose, route, and frequency) | 25 units once daily, subcutaneously |
| Specific Directions not included above: | <p>Kathryn should clean the injection site with alcohol before injecting (Jones & Bartlett, 2024)</p> <p>Kathryn should not use the Levemir if particulates are present or coloration is noted (Jones & Bartlett, 2024).</p> <p>Kathryn should inject the Levemir 30 minutes prior to her evening meal (Jones & Bartlett, 2024).</p> <p>Kathryn should dispose of the needle in a proper container (drugs.com, 2025).</p> <p>Kathryn should not inject into the same site two times in a row (Jones & Bartlett, 2024).</p> <p>Kathryn should inject into intact skin only. She should not inject into scar tissue or tissue that is bruised, pitted, tender, thick, or scaly (Jones & Bartlett, 2024).</p> |
| Does this medication interact with any other | Blood sugar should be closely monitored with medications such as Benicar HCT |

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| <p>medication(s) on this list? (see rubric for further instruction)</p> | <p>(drugs.com, 2025) Gabapentin and Ambien can mask the symptoms of hypoglycemia which can be very dangerous for a diabetic patient (drugs.com, 2025)</p> <p>Lexapro increases the risk of hypoglycemia (drugs.com, 2025).</p> |
| <p>Lifestyle interactions:</p> <p>(Daily tobacco use, alcohol, drugs, etc.)</p> | <p>Patients taking Levemir will benefit from maintaining a balanced diet, regular exercise, stress management, staying hydrated, smoking cessation, and regular blood sugar monitoring (Capriotti, 2020).</p> |
| <p>Does any of the client's past medical history contradict the use of this medication?</p> | <p>My research does not show that any of the patient's past medical history contraindicates this medication.</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>Kathryn has been prescribed Levemir to treat her type 1 diabetes and control her blood sugar.</p> |
| <p>What would you teach the client about taking this</p> | <p>1. Levemir should be injected at the same time every day to help maintain a consistent</p> |

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| <p>medication? You must prioritize 2 (see rubric)</p> | <p>schedule, however, if a dose is forgotten it should be taken as soon as you remember unless it is almost time for the next dose. If this is the case, skip the missed dose and resume your regular schedule (Jones & Bartlett, 2024).</p> <p>2. This patient is taking Levemir and Novolin R subcutaneously. It is important to make sure that this patient understands that they cannot mix these two insulins in the same syringe (Jones & Bartlett, 2024).</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>HyVee's pharmacy offers 10mL of 100 units per mL for the cheapest price of \$104.18 (GoodRx, 2025).</p> |
| <p>Drug #3</p> | <p>Drug Name (Generic): Gabapentin</p> <p>Drug Name (Trade): Gralise, Neurontin</p> <p>Drug Class:</p> <p>Pharmacologic: 1-amino-methyl cyclohexane acetic acid</p> |

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| | Therapeutic: Anticonvulsant (Jones & Bartlett, 2024) |
| How is the medication taken: (include dose, route, and frequency) | 400 mg taken three times daily by mouth |
| Specific Directions not included above: | Kathryn can not exceed more than 12 hours between doses on a three-times-a-day schedule (Jones & Bartlett, 2024). Kathryn should take this medication at least 2 hours after an antacid (Jones & Bartlett, 2024). The different brands of Gabapentin are not interchangeable (Jones & Bartlett, 2024). Kathryn should take this medication with food (Jones & Bartlett, 2024) Kathryn should only take this medication as prescribed by her doctor and follow the directions on her prescription label (Jones & Bartlett, 2024). This medication should be stored at room temperature (Jones & Bartlett, 2024). |

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| | <p>Kathryn should not stop taking this medication suddenly; she will need to be tapered off of it (Jones & Bartlett, 2024).</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>Ambien CR increases sedation and the risk for central nervous system depression; use caution when combining Gabapentin with Ambien CR (Jones & Bartlett, 2024).</p> <p>Lexapro causes blood sodium levels to decrease, and when combined with Gabapentin this risk is increased further; Lexapro can also cause seizures in susceptible patients which may reduce the effectiveness of an anticonvulsant such as gabapentin (drugs.com, 2025).</p> |

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| <p>Lifestyle interactions:</p> <p>(Daily tobacco use, alcohol, drugs, etc.)</p> | <p>Kathryn should avoid alcohol; alcohol increases the risk of CNS and respiratory depression which can become severe (Jones & Bartlett, 2024).</p> <p>Gabapentin causes dizziness and drowsiness which can make it harder to recognize the signs of hypoglycemia, which could be dangerous for a diabetic patient (Jones & Bartlett, 2024).</p> <p>Kathryn should avoid driving or hazardous activities until you have a thorough understanding of how Gabapentin will affect you (drugs.com, 2025)</p> |
| <p>Does any of the client's past medical history contradict the use of this medication?</p> | <p>Kathryn has a long history of smoking which is very concerning because Gabapentin can cause life-threatening breathing problems (drugs.com, 2025).</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>Kathryn has been prescribed Gabapentin to relieve the burning and tingling symptoms that are caused by her neuropathy.</p> |

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| <p>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</p> | <p>1. Kathryn should not stop taking Gabapentin suddenly because it can lead to symptoms of withdrawal (Jones & Bartlett, 2024).</p> <p>2. Kathryn should swallow tablets or capsules whole instead of crushing, splitting, or chewing them (Jones and Bartlett, 2024).</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>Meijer's pharmacy offers a 60-capsule supply of 400mg capsules of Gabapentin for the cheapest price of \$7.01 (GoodRx, 2025). Kathryn would require 90 capsules for one month and would need to refill before the month was over, bringing her monthly total to \$14.02</p> |
| <p>Drug #4</p> | <p>Drug Name (Generic): Acetylsalicylic acid</p> <p>Drug Name (Trade): Aspirin</p> <p>Drug Class:</p> |

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| | <p>Pharmacologic: Salicylate</p> <p>Therapeutic: NSAID (anti-inflammatory, anti-platelet, antipyretic, non-opioid analgesic)</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>81 mg by mouth once a day</p> |
| <p>Specific Directions not included above:</p> | <p>This medication should be administered with food and a full glass of water to reduce GI effects (Jones & Bartlett, 2024).</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>When aspirin is used with long or short-acting insulins Kathryn’s risk for hypoglycemia increases, and blood sugar levels should be closely monitored (drugs.com, 2025).</p> <p>Aspirin may reduce the ability of Benicar HCT to reduce blood pressure (drugs.com, 2025).</p> |

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| | When aspirin is combined with Lexapro it will increase Kathryn's risk for bleeding (drugs.com, 2025). |
| Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.) | If aspirin is combined with alcohol, it can cause an increase in the risk of peptic ulcers (Jones & Bartlett, 2024). |
| Does any of the client's past medical history contradict the use of this medication? | Kathryn has been diagnosed with GERD, and aspirin can irritate the esophagus and cause an increase in the pain that is associated with GERD (drugs.com, 2025) |
| 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) | Kathryn is hypertensive, which increases her risk of stroke (Capriotti, 2020). A low-dose aspirin can decrease this risk (Jones & Bartlett, 2024). |
| What would you teach the client about taking this medication? You must prioritize 2 (see rubric) | 1. Kathryn should cease to take the medication and notify their provider if they notice any symptoms of gastric or intestinal bleeding, such as blood in the stool or urine, vomit that appears to have coffee grounds in it, abdominal pain, or |

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| | <p>fatigue (Jones & Bartlett, 2024).</p> <p>2. If aspirin is combined with ibuprofen or naproxen it can increase Kathryn's risk for intestinal and gastric bleeding risk (Jones and Bartlett, 2024).</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>The pharmacy at Jewel-Osco sells a 30-capsule bottle of 81 mg aspirin for the cheapest price of \$1.95 (GoodRx, 2025).</p> |
| <p>Drug # 5</p> | <p>Drug Name (Generic): Olmesartan medoxomil</p> <p>Drug Name (Trade): Benicar HCT</p> <p>Drug Class: Antihypertensive</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>20/25 mg by mouth once daily</p> |

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| Specific Directions not included above: | This medication can be taken with or without food (Jones & Bartlett, 2024). This medication should be taken at the same time every day to help you remember to take it (drugs.com, 2025) If you miss a dose take it as soon as you remember, but do not take two doses at the same time (drugs.com, 2025) |
| Does this medication interact with any other medication(s) on this list? (see rubric for further instruction) | This drug will have negative interactions with aspirin and insulin. Benicar HCT affects stomach acid levels and can place a patient at great risk when combined with aspirin (Jones & Bartlett, 2024). Benicar HCT may increase the risk of hypoglycemia when combined with insulin (drugs.com, 2025). Blood sugars should be closely monitored when combining this drug with insulin. |
| Lifestyle interactions: | Too much sodium will negate the effectiveness of this drug and a low-sodium diet should |

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| <p>(Daily tobacco use, alcohol, drugs, etc.)</p> | <p>be implemented (Jones & Bartlett, 2024).</p> <p>This drug can increase potassium levels, and Kathryn should be educated to monitor potassium intake and foods like bananas and oranges (Jones & Bartlett, 2024).</p> <p>Staying hydrated and having adequate fluid intake is essential when taking this medication (Jones & Bartlett, 2024).</p> <p>Kathryn should avoid excessive alcohol intake with this medication (Jones & Bartlett, 2024).</p> <p>Kathryn’s kidney health should be monitored while she is taking this medication (Jones & Bartlett, 2024).</p> |
| <p>Does any of the client’s past medical history contradict the use of this medication?</p> | <p>This drug may cause hyperglycemia in diabetic patients, and blood sugar levels should be closely monitored (drugs.com, 2025).</p> |

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| <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>Kathryn has been prescribed this medication to help control their hypertension, because it is an antihypertensive (Jones & Bartlett, 2024).</p> |
| <p>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</p> | <p>1. Kathryn should avoid exercising in hot weather and excessive alcohol use when taking this drug because it can cause dehydration (Jones & Bartlett, 2024).</p> <p>2. Kathryn should avoid hazardous activities until the effects this medication will have on her are well known (Jones & Bartlett, 2024)</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>CVS pharmacy offers a 30-capsule supply of this medication for the cheapest price of \$17.19 (GoodRx, 2025).</p> |
| <p>Drug # 6</p> | <p>Drug Name (Generic): Escitalopram</p> |

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| | <p>Drug Name (Trade): Lexapro</p> <p>Drug Class:</p> <p style="padding-left: 40px;">Pharmacologic: Selective Serotonin Reuptake Inhibitor</p> <p style="padding-left: 40px;">Therapeutic: Antidepressant</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>20 mg by mouth once daily</p> |
| <p>Specific Directions not included above:</p> | <p>This medication does not have to be taken with food, take it either in the morning or evening. (Bartlett, 2023)</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>There is a risk of central nervous system (CNS) depression when escitalopram is combined with Ambien CR (zolpidem). Use caution and monitor for sedation if taken together. (Bartlett, 2023)</p> |

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| | <p>If taken with atorvastatin, it may slightly increase the risk of serotonin syndrome or myopathy. Although this interaction is uncommon, it should still be monitored closely. (Bartlett, 2023)</p> |
| <p>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)</p> | <p>Kathryn should avoid alcohol. It can intensify CNS side effects such as drowsiness, sedation, or confusion. (Bartlett, 2023)</p> <p>Nicotine use, including cigarettes or vaping, may alter serotonin levels, which could reduce the effectiveness of SSRIs. (Bartlett, 2023)</p> |
| <p>Does any of the client's past medical history contradict the use of this medication?</p> | <p>There are no direct contraindications based on Kathryn's conditions, but her insomnia or behavioral symptoms related to depression should be closely monitored. (Bartlett, 2023)</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</p> | <p>Escitalopram is prescribed for depression, consistent with Kathryn's medical history.</p> |

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| medication in general) | |
| What would you teach the client about taking this medication? You must prioritize 2 (see rubric) | <ol style="list-style-type: none"> 1. Inform the patient that full therapeutic effects may take 4–6 weeks. Encourage them to stick with it despite the initial lack of effect. (Bartlett, 2023) 2. Warn patients about side effects from sudden discontinuation of the drug, as it may result in withdrawal symptoms like anxiety, irritability, or dizziness. (Bartlett, 2023) |
| How much would medication cost per month if paying out of pocket? | <p>Generic escitalopram costs about \$7–10/month with discount programs like GoodRx, depending on the pharmacy. (GoodRx, 2025) Without insurance or discounts, the cost of generic escitalopram ranges from \$15 to \$36 per month, depending on the pharmacy (GoodRx, 2025). Brand-name Lexapro is significantly more expensive, costing over \$400/month without insurance (GoodRx, 2025).</p> |
| Drug # 7 | <p>Drug Name (Generic): Zolpidem</p> <p>Drug Name (Trade): Ambien CR</p> |

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| | <p>Drug Class</p> <p>Pharmacologic: Imidazopyridine</p> <p>Therapeutic: Sedative-hypnotic</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>12.5 mg as needed at bedtime</p> |
| <p>Specific Directions not included above:</p> | <p>Ensuring the patient has at least 7–8 hours available for sleep. Do not crush or chew the extended-release tablet. (Bartlett, 2023)</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>Combined use with Lexapro may lead to additive CNS depression and increased risk of drowsiness or impaired coordination; sedation levels should be monitored. (Bartlett, 2023)</p> <p>Alcohol significantly increases sedation and risks of respiratory depression when taken with zolpidem. (Bartlett, 2023)</p> |

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| <p>Lifestyle interactions:</p> <p>(Daily tobacco use, alcohol, drugs, etc.)</p> | <p>Advise Kathryn to avoid alcohol entirely while using this medication. (Bartlett, 2023)</p> <p>Smoking may increase the metabolism of zolpidem, potentially reducing its effectiveness. (Bartlett, 2023)</p> |
| <p>Does any of the client’s past medical history contradict the use of this medication?</p> | <p>Use caution in patients with depression or insomnia related to anxiety. Monitor closely for worsening mood symptoms or suicidal ideation. (Bartlett, 2023)</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>Zolpidem is prescribed for insomnia. Given Kathryn’s insomnia diagnosis, this medication is appropriate but should be used with caution due to her history of depression and potential for dependence.</p> |
| <p>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</p> | <p>1. Advise Kathryn to take the medication immediately before bed and to avoid any activities that require alertness such as driving, after administration. (Bartlett,</p> |

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| | <p>2023)</p> <ol style="list-style-type: none"> 2. Educate her about the risk of dependence and recommend using the medication only as needed, not nightly. (Bartlett, 2023) 3. Teach Kathryn to immediately report any new or worsening symptoms of depression, suicidal thoughts or unusual changes in mood or behavior to her healthcare provider, as these may be side effects of zolpidem. (Bartlett, 2023) |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>Generic zolpidem ER costs approximately \$15–20/month through discount programs. (GoodRx, 2025) Without insurance, the cost of generic zolpidem CR (12.5 mg) ranges from \$70 to \$100 per month, depending on the pharmacy (GoodRx, 2025). Brand-name Ambien CR costs significantly more, around \$300–400/month without insurance (GoodRx, 2025).</p> |
| <p>Drug # 8</p> | <p>Drug Name (Generic): Pantoprazole</p> <p>Drug Name (Trade): Protonix</p> <p>Drug Class</p> |

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| | <p>Pharmacologic: Proton Pump Inhibitor (PPI)</p> <p>Therapeutic: Antiulcer agent</p> <p>(Jones & Bartlett, 2024)</p> |
| <p>How is the medication taken: (include dose, route, and frequency)</p> | <p>40 mg daily PO</p> |
| <p>Specific Directions not included above:</p> | <p>Pantoprazole should be taken preferably in the morning, with or without food. Tablets should be swallowed whole and not crushed, chewed, or split. (Bartlett, 2023)</p> |
| <p>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</p> | <p>If pantoprazole is taken long-term with Atorvastatin it may slightly decrease absorption due to reduced stomach acidity. This interaction is minor unless taken with other drugs that require acidic environments. (Bartlett, 2023)</p> <p>There is minimal interaction between pantoprazole and other medications on Kathryn's list. (Bartlett, 2023)</p> |
| <p>Lifestyle interactions:</p> | <p>Smoking increases stomach acid production, potentially reducing the effectiveness of pantoprazole. We should advise Kathryn to continue efforts to quit smoking. (Bartlett,</p> |

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| (Daily tobacco use, alcohol, drugs, etc.) | 2023) Alcohol may also worsen GERD symptoms and reduce the efficacy of pantoprazole. (Bartlett, 2023) |
| Does any of the client’s past medical history contradict the use of this medication? | There are no direct contraindications. Pantoprazole is appropriate for Kathryn’s gastroesophageal reflux disease (GERD). We should monitor long-term use for risks such as vitamin B12 deficiency or osteoporosis-related fractures. (Bartlett, 2023) |
| 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) | Pantoprazole is prescribed to manage Kathryn’s GERD, based on her medical history. |
| What would you teach the client about taking this medication? You must prioritize 2 (see rubric) | 1. Have Kathryn be cautious if she has any persistent abdominal pain or black stools. These could indicate complications such as bleeding ulcers. (Bartlett, 2023) |

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| | <p>2. Teach Kathryn to take the medication at the same time each day for optimal acid suppression. (Bartlett, 2023)</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>Generic pantoprazole costs approximately \$8–12/month with discount programs like GoodRx (GoodRx, 2025). Without insurance, the cost of generic pantoprazole (40 mg) ranges from \$50 to \$75 per month, depending on the pharmacy (GoodRx, 2025). Brand-name Protonix costs around \$200–250/month without insurance (GoodRx, 2025).</p> |
| <p>Drug # 9</p> | <p>Drug Name (Generic): Conjugated g-estrogens</p> <p>Drug Name (Trade): Premarin</p> <p>Drug Class:</p> <p style="padding-left: 40px;">Pharmacologic: Hormone</p> <p style="padding-left: 40px;">Therapeutic: Hormone replacement therapy (HRT)</p> <p>(Jones & Bartlett, 2024)</p> |

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| How is the medication taken: (include dose, route, and frequency) | 0.625 mg daily PO |
| Specific Directions not included above: | Patients should try to take it at the same time each day to maintain consistent hormone levels. (Bartlett, 2023) |
| Does this medication interact with any other medication(s) on this list? (see rubric for further instruction) | Atorvastatin may increase estrogen levels which can lead to a slightly higher risk of adverse effects such as blood clots or stroke. (Bartlett, 2023) Smoking significantly increases the risk of thromboembolic events such as blood clots and cardiovascular complications when combined with estrogen therapy. (Bartlett, 2023) |
| Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.) | Smoking significantly increases the risk of thromboembolic events when combined with estrogen therapy. Kathryn's tobacco use (1 pack/day) places her at high risk. We should strongly recommend smoking cessation. (Bartlett, 2023) |

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| | <p>Alcohol may worsen liver metabolism issues and increase the risk of estrogen-related side effects such as nausea or dizziness. (Bartlett, 2023)</p> |
| <p>Does any of the client’s past medical history contradict the use of this medication?</p> | <p>Patients who have hypertension and hyperlipidemia should use caution with taking Conjugated g-estrogens as it increases their risk of stroke and cardiovascular events. (Bartlett, 2023)</p> <p>This medication is not directly contraindicated in Kathryn’s case, but she should be monitored closely due to her high-risk lifestyle, including smoking and diabetes. (Bartlett, 2023)</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>Premarin is prescribed for hormone replacement therapy. This could be for managing menopausal symptoms or prevention of osteoporosis. However, no direct indication is noted in Kathryn’s medical history. (Bartlett, 2023)</p> |
| <p>What would you teach the client about taking this medication? You must prioritize 2 (see rubric)</p> | <p>1. Emphasize the importance of smoking cessation to reduce the risk of serious</p> |

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| | <p>cardiovascular complications, such as blood clots or stroke. (Bartlett, 2023)</p> <p>2. Advise Kathryn to report any unusual symptoms such as severe headaches, leg pain/swelling, or chest pain, as these may indicate a blood clot or stroke. (Bartlett, 2023)</p> |
| <p>How much would medication cost per month if paying out of pocket?</p> | <p>Generic alternatives may not be available; Conjugated g-estrogens costs approximately \$130–150/month, depending on the pharmacy. Some discount programs may reduce the cost (GoodRx, 2025). Without insurance, brand-name Premarin (0.625 mg) costs approximately \$150–200/month, depending on the pharmacy (GoodRx, 2025).</p> |
| <p>Drug # 10</p> | <p>Drug Name (Generic): Atorvastatin</p> <p>Drug Name (Trade): Lipitor</p> <p>Drug Class:</p> <p>Pharmacologic: HMG-CoA reductase inhibitor (statin)</p> <p>Therapeutic: Lipid-lowering agent</p> |

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| | (Jones & Bartlett, 2024) |
| How is the medication taken: (include dose, route, and frequency) | 20 mg PO Daily |
| Specific Directions not included above: | Atorvastatin should be taken in the evening, as cholesterol synthesis is highest at night. It may be taken with or without food. (Bartlett, 2023) |
| Does this medication interact with any other medication(s) on this list? (see rubric for further instruction) | Premarin may slightly increase estrogen levels due to altered liver metabolism; monitor for side effects. (Bartlett, 2023) Lexapro should have minimal interaction but monitor for rare muscle symptoms such as myopathy. (Bartlett, 2023) There are no major interactions with Protonix or Ambien CR. (Bartlett, 2023) |
| Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.) | Advise Kathryn to avoid grapefruit or grapefruit juice, as it can increase atorvastatin levels, which can increase the risk of muscle damage or rhabdomyolysis. (Bartlett, 2023) Smoking can indirectly worsen lipid control and reduce cardiovascular benefits of |

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| | atorvastatin. (Bartlett, 2023) |
| Does any of the client's past medical history contradict the use of this medication? | There are no contraindications, but Kathryn's diabetes, hypertension, and hyperlipidemia make atorvastatin an essential medication to reduce cardiovascular risk. We should monitor liver function periodically. (Bartlett, 2023) |
| 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) | Atorvastatin is prescribed for hyperlipidemia and to reduce the risk of cardiovascular events such as heart attack or stroke, in high-risk patients like Kathryn. |
| What would you teach the client about taking this medication? You must prioritize 2 (see rubric) | <ol style="list-style-type: none"> 1. Instruct Kathryn to report any unexplained muscle pain, weakness, or dark urine, as these may indicate rare but serious side effects like rhabdomyolysis. (Bartlett, 2023) 2. Educate her to avoid grapefruit products and discuss the importance of maintaining a low-fat, heart-healthy diet. (Bartlett, 2023) |
| How much would medication cost per month if paying out of pocket? | Generic atorvastatin costs approximately \$10–15/month with discount programs (GoodRx, 2025). Without insurance, the cost of generic atorvastatin (20 mg) ranges |

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| | from \$15 to \$30 per month, depending on the pharmacy (GoodRx, 2025). Brand-name Lipitor costs \$250–300/month without insurance (GoodRx, 2025). |
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Is there anything about this medication regimen scenario that might indicate a potential difficulty in maintaining compliance with the orders as listed?

I feel that in this case the patient's main struggle with remaining compliant will come down to cost. This patient is unemployed and is in a grey area that prevents her from receiving many of the benefits that are offered to patients who are financially struggling. Several of her prescribed medications, such as Premarin and Ambien CR, can be costly without insurance or discount programs. This financial burden may lead to delayed refills, skipped doses, or complete nonadherence, which could worsen her already existing health conditions.

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

Our patient is experiencing a lot of new stressors and depression, which will make it difficult for her to remember to properly adhere to her medication regimen. She can benefit from taking her once-daily medications at the same time every day and portioning

out her daily meds into a weekly pill box with spaces for each individual weekday. Setting reminders on her phone or using a medication reminder app may also help keep her on schedule. Additionally, involving a trusted family member or friend in her routine could offer accountability and emotional support during this difficult time.

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

This patient would benefit from being assigned a social worker who would be able to help her navigate all of the resources available to her to help her lower the costs of her medication. She should also be educated on how to maintain a proper diabetic diet and exercise routine because it would be the best chance she has to lower her insulin dosage and improve any respiratory or cardiac issues her medications may be causing. She should also be provided with resources available to her to help her quit vaping and smoking because they are having a lot of negative effects on her body further impairing her skin integrity and its ability to heal causing her respiratory distress. It may also be worth asking the prescriber if any of her medications could be safely consolidated or switched to more affordable generics. In addition, exploring non-pharmacologic approaches for managing her insomnia and anxiety, such as cognitive behavioral therapy or relaxation techniques could reduce her reliance on medications like Ambien.

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

The least Kathryn can expect to spend on her medications every month without insurance is \$417.11. To obtain this number I took the lowest costs of each medication listed above and added them together. This number is pharmacy dependent, and the patient should expect to spend more if the pharmacies that offer the lowest cost are not in her area. This is unfortunate for Kathryn because she is only pulling \$250 a week (\$1,000 a month) in unemployment benefits and will struggle to cover the costs of daily living with what is left over after she purchases her monthly medications. . This level of financial strain may lead her to skip medications, delay refills, or prioritize some prescriptions over others. It is essential that her care team explores patient assistance programs, prescription discount cards, or generic substitutions to help reduce this burden.

Reflective Statement of Experience:

I found this assignment to be enlightening because it really made me think about how difficult it is for a patient to keep track of all of their different medications. All of the different timings, interactions, and potential adverse effects can be overwhelming, not to mention the struggle a patient faces trying to keep up with the overwhelming cost of their medications. These factors placed on top of the stressors of everyday life can make a task as simple as taking your prescribed daily medications overwhelming for even the most responsible and organized patient. It also made me realize how important it is to consider the whole picture that is the patient's life, including financial, emotional, and social factors, when developing a treatment plan. Effective care requires not just understanding the medical needs but also addressing the barriers to medication adherence that patients often face.

References

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Nurse's Drug Handbook Jones & Bartlett Learning. (2024). Jones & Bartlett Learning.

N322 Polypharmacy Grading Rubric

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

| <p>Each drug should have a completed breakdown within the tables provided, which includes the following:</p> <ul style="list-style-type: none"> • Drug class • Generic name • Trade name • How is the medication taken (include dose, route, frequency) | <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> |
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| <p>Criteria</p> | <p>Excellent 10 points</p> | <p>Acceptable 8-10 points</p> | <p>Unacceptable 0 - 7 points</p> | <p>Points Earned</p> |
| <p>Specific Directions not included above:</p> <ul style="list-style-type: none"> • Is there any type of medication on the patient list that have specific directions? (before bed, before breakfast, 30 minutes before meals, etc..) | <p>All key components were addressed within the paper.</p> | <p>The student did list some of the medications that required specific directions, however some of the medications included specific directions that were not addressed and/or were inaccurate. (For each medication this question is worth one point)</p> | <p>Student failed to answer the questions and/or the answers were inaccurate. (For each medication this question is worth one point)</p> | <p>___/10</p> |

| Criteria | Excellent 0 points | Acceptable 16-19 | Unacceptable 0-15 points | Points Earned |
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| <p>Does this medication have any potentially serious interactions with any other medication(s) on this list, and/or potential interactions that should be closely monitored due to co-administration?</p> <ul style="list-style-type: none"> Do any of the medications interact with each other? <p>(Please note: if there is an interaction between two medication, you MUST list that interaction on BOTH medications to receive full credit. You may utilize the same verbiage/wording on each medication, we want to know you are thinking about it when considering each medication)</p> | 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 medication listed this question is worth two points) | Student failed to answer question and/or The student did list some of the potential interactions of the medication(s), but failed to address all potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points) | ___/20 |

| Criteria | Excellent 5 points | Acceptable 4 points | | Unacceptable 0 -3 points | Points Earned |
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| 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 | |

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| <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 answers provided were inaccurate. (For each medication this question is worth one point) | ___/10 |
| 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 |
| What would you teach the | Student showed the importance | The student provided some | Student failed to answer the | ___/20 |

| <p>client about taking this medication?</p> <ul style="list-style-type: none"> • What education is needed for the medication? (For each medication listed the student must prioritize two topics for client education) <p>(You must consider all component(s) of the medication list when answering this question... if there are potential interactions with other medication this may be a priority over general education for this one medication)</p> | <p>of medication education, and appropriate prioritized client education for the scenario provided.</p> | <p>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>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> | |
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| <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</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</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</p> | <p>___/10</p> |

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| <p>as listed?</p> <ul style="list-style-type: none"> Why would the patient have difficulty maintaining the medication regimen? <p>(Please consider all factors in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc)</p> | | <p>reason for some of the medications (This question is worth one point for each medication)</p> | <p>reason OR an appropriate reason for some of the medications (This question is worth one point for each medication)</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 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</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>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> |

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| in the scenario and all information provided within your chart – including cost, insurance, frequency of administration, etc. | | | | |
| Criteria | Excellent 15 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 client's monthly out of pocket expense for all 10 medications? | Student showed research on medication costs | 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) | Student failed to answer the question OR 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) | ___/15 |
| Criteria | Excellent 20 points | Acceptable 16-19 points | Unacceptable 0-15 points | Points Earned |
| The student must appropriately format the paper and include all of the following: | The document included a title page, the rubric, the client scenario, a reference page which included five references that were cited within the document. | The document did not meet all of the criteria for formatting/ referencing. See "criteria" to the left | The document did not meet all of the criteria for formatting/ referencing. See "criteria" to the left for further breakdown. | ___/20 |

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| <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 the provided client scenario on page two of the document (2 points) • The paper included a minimum of five references which were cited within the document (each reference with one | <p>APA formatting was consistent with the APA manual.</p> | <p>for further breakdown.</p> | | |
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| <p>citation is worth 5 points)</p> | | | | |
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| <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>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 10 points | Acceptable 8-9 points | Unacceptable 0-7 points | Points Earned |
|---|--|--|--|---------------|
| <ul style="list-style-type: none"> • Reflective statement of experience should include the following: <p>-insight into the project itself (a specific example within the project and its implications)</p> <p>-A basic understanding of polypharmacy</p> <p>-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>The student provided a reflection, however the reflection lacked one of the following</p> <p>-insight into the project itself (a specific example within the project and its implications).</p> <p>-A basic understanding of polypharmacy</p> <p>-A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</p> | Student failed to reflect on their project OR the student addressed only of the topics of reflection | ___/10 |
| Total Points | | | | ___/200 |