

Polypharmacy Project

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N322 Introduction to Pharmacology

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### **Polypharmacy Case 7**

Background: Betty is an 87-year-old female. She resides at home alone. She has two children that are active participants in her care. They are able to visit her once a day. Betty Jane is alert and oriented. Her major struggles in her home environment are mainly due to her extensive limitations in range of motion to her upper extremities related to rheumatoid arthritis and history of a fractured right humerus. She recently visited the walk in clinic where you work and was diagnosed with a urinary tract infection. You are the nurse in charge of calling in her antibiotic to the pharmacy. Betty does not drink alcohol, smoke, or do illicit drugs.

Insurance: She has both Medicare and Medicaid coverage.

Allergies: None

Diet: No added salt

Medical diagnosis: Rheumatoid arthritis, GERD, atrial fibrillation, and hypertension.

Current medications include the following:

1. Lisinopril 5 mg po daily
2. Hydroxychloroquine 300 mg by mouth twice a day
3. Jantoven 7.5 mg po daily
4. Percocet 5/325 mg Q12 hours PRN
5. Lasix 10 mg by mouth twice daily
6. Omeprazole 20mg po daily
7. AZO Cranberry tablet 500 mg po twice daily
8. Multivitamin with minerals one tablet po daily

9. Acetaminophen 650 mg po Q6H PRN

10. Bactrim 400/80 po every 12 hours X 10 days

<p><b>Drug #1</b></p> <p><b>Drug Class: Angiotensin-converting enzyme inhibitor</b></p> <p>(Jones &amp; Bartlett Learning, 2020)</p>	<p><b>Drug Name (Generic): lisinopril</b></p> <p><b>Drug Name (Trade): Prinivil</b></p> <p>(Jones &amp; Bartlett Learning, 2020)</p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>5 mg P.O. daily</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take this medication at the same time everyday (Jones &amp; Bartlett Learning, 2020).</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Bactrim may increase hyperkalemic effects of lisinopril.</p> <p>Lasix may enhance the hypotensive and nephrotoxic effects of this medication.</p> <p>Hydroxychloroquine may enhance hypoglycemic effects of this medication.</p> <p>Lisinopril may increase the hypoglycemic effects of hydroxychloroquine.</p> <p>(UpToDate, n.d.)</p>
<p><b>Lifestyle interactions:</b></p> <p><b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>Patient is on a no added salt diet and may be using salt substitutes which can increase her risk of hyperkalemia (Jones &amp; Bartlett Learning, 2020).</p>

<b>Does any of the client’s past medical history contradict the use of this medication?</b>	Atrial fibrillation (Jones & Bartlett Learning, 2020)
<b>What is the indication for use of this medication based on the client’s past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</b>	Hypertension (Jones & Bartlett Learning, 2020)
<b>What would you teach the client about taking this medication</b>	<ul style="list-style-type: none"> <li>● Explain the medication interactions with Bactrim, Lasix, and hydroxychloroquine.</li> <li>● Inform the patient that she should not be using a salt substitute.</li> </ul> <p>(Jones &amp; Bartlett Learning, 2020)</p>
<b>How much would medication cost per month if paying out of pocket?</b>	Normally, lisinopril would cost around one hundred and thirty two dollars for a thirty count of five milligram tablets (“Lisinopril Prices and Coupons,” 2021). However, if the patient applies for a stand-alone Part D prescription Plan or a Medicare Advantage Plan that includes Part D coverage, lisinopril may be covered with no out of pocket pay (“Does Medicare Cover Lisinopril?,” 2020).

<p><b>Drug #2</b></p> <p><b>Drug Class: Aminoquinoline</b></p> <p>(Jones &amp; Bartlett Learning, 2020)</p>	<p><b>Drug Name (Generic): hydroxychloroquine</b></p> <p><b>Drug Name (Trade): Plaquenil</b></p> <p>(Jones &amp; Bartlett Learning, 2020)</p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>300 mg P.O. BID</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take this medication with food (Jones &amp; Bartlett Learning, 2020).</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Bactrim may increase the hypoglycemic effects of hydroxychloroquine.</p> <p>Lisinopril can increase the hypoglycemic effects of this medication.</p> <p>(UpToDate, n.d)</p>
<p><b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>N/A (Jones &amp; Bartlett Learning, 2020)</p>

<p><b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</b></p>	<p>Rheumatoid arthritis (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>What would you teach the client about taking this medication?</b></p>	<ul style="list-style-type: none"> <li>● Educate the patient on the medication interactions with Bactrim and lisinopril.</li> <li>● Take this medication as prescribed as taking too much of this medication can result in adverse effects and taking less than the prescribed dose can decrease effectiveness. (Jones &amp; Bartlett Learning, 2020)</li> </ul>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>The average cost for sixty tablets at three hundred milligrams a piece is around one hundred and fifty dollars ("Hydroxychloroquine Sulfate," 2021). Medicare covers the cost of this prescription medication (Prescription Prices, n.d).</p>

<p><b>Drug #3</b></p> <p><b>Drug Class: Coumarin derivative</b> (Jones &amp; Bartlett Learning, 2020)</p>	<p><b>Drug Name (Generic): warfarin</b></p> <p><b>Drug Name (Trade): Jantoven</b> (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>7.5 mg P.O. daily</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take in the evening. Take as soon as possible after missing a dose. Advise the patient to not double dose. (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Bactrim can enhance the anticoagulant effects of this medication.</p> <p>Jantoven may interfere with certain laboratory tests and cause false test results in patient's who are also taking Bactrim ("Bactrim DS," 2021).</p> <p>Acetaminophen can enhance the anticoagulant effects of this medication.</p> <p>AZO cranberry can enhance the anticoagulant effects of this medication.</p> <p>Omeprazole can increase the serum concentration of this medication.</p> <p>Percocet can enhance the anticoagulant effects of this medication. (UpToDate, n.d)</p>

<p><b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>N/A (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>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)</b></p>	<p>This medication was prescribed to help with complications associated with the patient's history of atrial fibrillation (Jones &amp; Bartlett Learning, 2020).</p>
<p><b>What would you teach the client about taking this medication?</b></p>	<ul style="list-style-type: none"> <li>● Educate patient on medication interactions with Bactrim, acetaminophen, AZO cranberry, omeprazole, and Percocet (UpToDate, n.d.).</li> <li>● Educate the patient on bleeding precautions (Jones &amp; Bartlett Learning, 2020).</li> </ul>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>A thirty count of seven and a half milligram tablets of Jantoven costs around twenty-five dollars ("Jantoven Prices and Coupons," 2020). This medication is covered by Medicare (Prescription Prices, n.d.).</p>

<p><b>Drug #4</b></p> <p><b>Drug Class: Analgesics. Opioid combos</b></p> <p>(Better Information, 2020)</p>	<p><b>Drug Name (Generic): oxycodone-acetaminophen</b></p> <p><b>Drug Name (Trade): Percocet</b></p> <p>(Better Information, 2020)</p>
<p><b>How is the medication taken: (include dose, route, and frequency)</b></p>	<p>5 mg/325 mg P.O. Q12H PRN</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take at the first onset of pain because waiting will reduce the effectiveness of this medication (Better Information, 2020).</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Percocet may enhance anticoagulant effects of Jantoven</p> <p>Percocet may enhance the adverse effects of diuretics.</p> <p>Percocet may diminish the therapeutic effects of Lasix.</p> <p>Percocet may enhance the effects of acetaminophen</p> <p>(UpToDate, n.d.).</p>
<p><b>Lifestyle interactions:</b></p> <p><b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A (Better Information, n.d.)</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>N/A (Better Information, n.d.)</p>
<p><b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past</b></p>	<p>Pain relief (Better Information, n.d.)</p>

<b>medical history, please list potential indications for use of the medication in general)</b>	
<b>What would you teach the client about taking this medication?</b>	<ul style="list-style-type: none"> <li>• Educate patient on medication interactions with Janatoven, lasix, and acetaminophen (Better Information, n.d.).</li> </ul>
<b>How much would medication cost per month if paying out of pocket?</b>	<p>A sixty count of five milligram three hundred and twenty five milligram tablets of Percocet pills costs sixty-eight dollars (“Oxycodone-Acetaminophen Prices and Coupons,” 2021). While Medicare may help with some of the cost of Percocet, it does not cover the whole cost (Prescription Prices, 2020).</p>

<b>Drug #5</b>  <b>Drug Class: Loop diuretic</b>  (Jones & Bartlett Learning, 2020)	<b>Drug Name (Generic): furosemide</b>  <b>Drug Name (Trade): Lasix</b>  (Jones & Bartlett Learning, 2020)
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<b>How is the medication taken: (include dose, route, and frequency)</b>	10 mg P.O. BID
<b>Specific Directions not included above:</b>	Take this medication at the same time every day to maintain therapeutic effects (Jones & Bartlett Learning, 2020).
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	<p>This medication may enhance the adverse effects of Percocet.</p> <p>Percocet may diminish the therapeutic effects of Lasix.</p> <p>Lisinopril may enhance hypotension of Lasix. May enhance nephrotoxic effects.</p> <p>(UpToDate, n.d)</p>
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)</b>	N/A (Jones & Bartlett Learning, 2020)
<b>Does any of the client's past medical history contradict the use of this medication?</b>	N/A (Jones & Bartlett Learning, 2020)
<b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</b>	<p>This medication is typically given to reduce edema. This patient may be given this medication for side effects of her atrial fibrillation (Jones &amp; Bartlett Learning, 2020).</p>
<b>What would you teach the client about taking this medication?</b>	<ul style="list-style-type: none"> <li>● Educate the patient on medication interactions with Percocet and lisinopril (UpToDate, n.d).</li> <li>● Educate the patient on the importance of diet control and weight management (Jones &amp; Bartlett Learning, 2020).</li> </ul>

<b>How much would medication cost per month if paying out of pocket?</b>	This medication has about a twenty-seven dollar copay. Medicare and Medicaid do not cover all the costs of this medication (Prescription Prices, n.d.).
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<b>Drug #6</b>  <b>Drug Class: Proton pump inhibitor</b>  (Jones & Bartlett Learning, 2020)	<b>Drug Name (Generic): omeprazole</b>  <b>Drug Name (Trade): Prilosec</b>  (Jones & Bartlett Learning, 2020)
<b>How is the medication taken: (include dose, route, and frequency)</b>	20 mg P.O. daily
<b>Specific Directions not included above:</b>	Take the medication before eating, usually breakfast, and swallow delayed-release capsules or tablets whole.  (Jones & Bartlett Learning, 2020)
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	Omeprazole can increase the serum concentration of Jantoven (UpToDate, n.d.).

<p><b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>Hypertension, bone fracture (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</b></p>	<p>GERD (Jones &amp; Bartlett Learning, 2020)</p>
<p><b>What would you teach the client about taking this medication?</b></p>	<ul style="list-style-type: none"> <li>● Educate patient on medication interaction with Jantovin (UpToDate, n.d.).</li> <li>● Avoid alcohol, aspirin products, ibuprofen, and foods that increase gastric secretions while taking this medication.</li> </ul> <p>(Jones &amp; Bartlett Learning, 2020)</p>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>This patient would be paying sixty-four dollars for a thirty count of twenty milligram pills ("Omeprazole Prices and Coupons," 2021). However, the patient's Medicare should cover the cost of this medications ("Does Medicare Cover Omeprazole?," 2020)</p>

<b>Drug #7</b>  <b>Drug Class: Herbal</b>  (Better Information, n.d)	<b>Drug Name (Generic): cranberry fruit concentrate</b>  <b>Drug Name (Trade): AZO Cranberry</b>  (Better Information, n.d)
<b>How is the medication taken:</b>  <b>(include dose, route, and frequency)</b>	500 mg P.O. BID
<b>Specific Directions not included</b>  <b>above:</b>	N/A (Better Information, n.d)
<b>Does this medication interact with</b>  <b>any other medication(s) on this list?</b>  <b>(see rubric for further instruction)</b>	AZO Cranberry may enhance the anticoagulant effects of Jantoven (UpToDate, n.d.).
<b>Lifestyle interactions:</b>  <b>(Daily tobacco use, alcohol, drugs,</b>  <b>etc.)</b>	N/A (Better Information, n.d)
<b>Does any of the client's past medical</b>  <b>history contradict the use of this</b>  <b>medication?</b>	N/A (Better Information, n.d)

<p><b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list potential indications for use of the medication in general)</b></p>	<p>This medication is used as a preventative measure against urinary tract infections (Better Information, n.d).</p>
<p><b>What would you teach the client about taking this medication?</b></p>	<ul style="list-style-type: none"> <li>● Educate patient on medication interaction with Jantoven (UpToDate, n.d.).</li> <li>● Kidney stones can develop while taking this medication (Better Information, n.d)</li> </ul>
<p><b>How much would medication cost per month if paying out of pocket?</b></p>	<p>A sixty count of five hundred milligram AZO Cranberry tablets costs around ten dollars. Medicare would not typically cover this medication because it is an over-the-counter supplement ("Azo Cranberry," 2021).</p>

<p><b>Drug #8</b></p> <p><b>Drug Class: Vitamin</b></p> <p>("Multivitamin With Minerals Oral," 2021)</p>	<p><b>Drug Name (Generic): multivitamin with minerals</b></p> <p><b>Drug Name (Trade): Folgard</b></p> <p>("Multivitamin With Minerals Oral," 2021)</p>
<p><b>How is the medication taken:</b></p> <p><b>(include dose, route, and frequency)</b></p>	<p>One tablet P.O. daily</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take on an empty stomach one hour before or two hours after eating</p> <p>("Multivitamin With Minerals Oral," 2021).</p>
<p><b>Does this medication interact with any other medication(s) on this list?</b></p> <p><b>(see rubric for further instruction)</b></p>	<p>N/A ("Multivitamin With Minerals Oral," 2021).</p>
<p><b>Lifestyle interactions:</b></p> <p><b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A ("Multivitamin With Minerals Oral," 2021).</p>
<p><b>Does any of the client's past medical history contradict the use of this medication?</b></p>	<p>N/A ("Multivitamin With Minerals Oral," 2021)</p>
<p><b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list</b></p>	<p>This multivitamin may be being used to treat vitamin or mineral deficiencies that are not being fulfilled in the patient's diet ("Multivitamin With Minerals Oral," 2021).</p>

<b>potential indications for use of the medication in general)</b>	
<b>What would you teach the client about taking this medication?</b>	<ul style="list-style-type: none"> <li>• An overdose of vitamins A, D, E, or K is possible and can cause serious side-effects which can be life-threatening.</li> <li>• Do not take this medication with any product that contains calcium such as milk, calcium supplements, or antacids that contain calcium (“Multivitamins and Minerals,” 2021).</li> </ul>
<b>How much would medication cost per month if paying out of pocket?</b>	Thirty multivitamins with minerals costs around seventeen dollars depending on where they are bought. Because multivitamins do not require a prescription, they will not be covered by Medicare or Medicaid (“Does Medicare Cover Vitamins?,” 2020).

<b>Drug #9</b>  <b>Drug Class: Nonsalicylate, paraminophenol derivative</b>	<b>Drug Name (Generic): acetaminophen</b>  <b>Drug Name (Trade): Tylenol</b>  (Jones & Bartlett Learning, 2020)
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(Jones & Bartlett Learning, 2020)	
<b>How is the medication taken: (include dose, route, and frequency)</b>	650 mg P.O. Q6H PRN
<b>Specific Directions not included above:</b>	N/A (Jones & Bartlett Learning, 2020)
<b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b>	Percocet may enhance the effects of acetaminophen (UpToDate, n.d.).
<b>Lifestyle interactions: (Daily tobacco use, alcohol, drugs, etc.)</b>	N/A (Jones & Bartlett Learning, 2020)
<b>Does any of the client's past medical history contradict the use of this medication?</b>	Hypertension (Jones & Bartlett Learning, 2020)
<b>What is the indication for use of this medication based on the client's past medical history? (If unable to determine an indication based on past medical history, please list</b>	Acetaminophen treats mild to moderate pain. Patient may be taking around the clock for fractured right humerus or rheumatoid arthritis (Jones & Bartlett Learning, 2020).

<b>potential indications for use of the medication in general)</b>	
<b>What would you teach the client about taking this medication?</b>	<ul style="list-style-type: none"> <li>• Educate the patient on medication interactions with Percocet (UpToDate, n.d.).</li> <li>• Do not exceed recommended dosage or take drugs containing acetaminophen at the same time as taking to avoid risk of liver damage (Jones &amp; Bartlett Learning, 2020).</li> </ul>
<b>How much would medication cost per month if paying out of pocket?</b>	One hundred and twenty tablets of six hundred and fifty milligram acetaminophen pills costs about one hundred and eight dollars (“Tylenol Prices and Coupons,” 2021). Acetaminophen is available as an over-the-counter drug and is not typically covered by Medicare or Medicaid (“Does Medicare Cover Tylenol?,” 2020).

<b>Drug #10</b>  <b>Drug Class: Antibiotic</b>  (Jones & Bartlett Learning, 2020)	<b>Drug Name (Generic): trimethoprim/sulfamethoxazole</b>  <b>Drug Name (Trade): Bactrim</b>  (Jones & Bartlett Learning, 2020)
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<p><b>How is the medication taken:</b> <b>(include dose, route, and frequency)</b></p>	<p>400-80 mg P.O. Q12H X 10 days</p>
<p><b>Specific Directions not included above:</b></p>	<p>Take medication on an empty stomach one hour before eating or two hours after. Take it with a full glass of water. Take the full course of the medication (“Bactrim DS,” 2021).</p>
<p><b>Does this medication interact with any other medication(s) on this list? (see rubric for further instruction)</b></p>	<p>Bactrim can enhance the anticoagulant effects of Jantovin. Jantovin may interfere with certain laboratory tests and cause false test results (“Bactrim DS,” 2021). Bactrim may increase the hyperkalemic effects of lisinopril . Bactrim may increase the hypoglycemic effects of hydroxychloroquine. (UpToDate, n.d.).</p>
<p><b>Lifestyle interactions:</b> <b>(Daily tobacco use, alcohol, drugs, etc.)</b></p>	<p>N/A (“Bactrim DS,” 2021)</p>
<p><b>Does any of the client’s past medical history contradict the use of this medication?</b></p>	<p>N/A (“Bactrim DS,” 2021)</p>
<p><b>What is the indication for use of this medication based on the client’s past medical history? (If unable to determine an indication based on past medical history,</b></p>	<p>Urinary tract infection (“Bactrim DS,” 2021)</p>

<b>please list potential indications for use of the medication in general)</b>	
<b>What would you teach the client about taking this medication?</b>	<ul style="list-style-type: none"> <li>● Take the full course of the medication.</li> <li>● Take medication with a full glass of water.</li> </ul> <p>(“Bactrim DS,” 2021)</p>
<b>How much would medication cost per month if paying out of pocket?</b>	<p>The average cost for twenty tablets of four hundred to eight milligram pills of Bactrim is around thirty dollars (“Bactrim Prices and Coupons,” 2021). Because Bactrim is a prescribed antibiotic, it will likely be covered by the patient’s Medicare and Medicaid (“Does Medicare Cover Antibiotics?,” 2021).</p>

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

While it is true that this patient has Medicare and Medicaid, I am still concerned that the estimated cost of two hundred dollars a month out of pocket may be too expensive. I am also concerned about how many medications this patient has to take and the special instructions involved with a few. Not only this, Betty has extensive limitations due to her fractured right humerus and rheumatoid arthritis which may make it difficult for her to pick up and take her medications considering she does live alone.

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

Though this patient has quite a few medications that do become expensive, she also has Medicare and Medicaid to help cover the cost of her medication regimen which will make it

more likely that she will be compliant with taking her medications. While Betty lives alone, she does have two children who are active participants in her care and can potentially go pick up her medications and check in on her as much as possible. Betty is alert and oriented which gives me more confidence that she will be able to take her medications on time and will be able to report any issues she is having with her regimen.

**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)**

I would suggest changing some medications to this provider. I feel this should be addressed and is a priority because this patient had a lot of medication interactions with medications that were in her regimen. Lisinopril had medication interactions with Bactrim, Lasix, and hydroxychloroquine and I would suggest switching this medication out for a different ACE inhibitor. Jantoven had medication interactions with Bactrim, acetaminophen, AZO Cranberry, omeprazole, and percocet. I would also suggest switching out Janatoven with a different coumarin derivative to ensure the patient is getting the best experience from her medication regimen. I am also worried about the patient's no added salt diet and that she may be using a salt substitute. This is a priority because using a salt substitute while taking lisinopril can increase the patient's risk of hyperkalemia. It is important to educate the patient on the importance of not using a salt substitute. Hypertension is also a contraindication for acetaminophen and omeprazole. The patient's fractured bone is also a contraindication for omeprazole. The patient's atrial fibrillation is also a contraindication for her lisinopril. It is

important that we at least monitor these contraindications to avoid serious and potentially life-threatening issues in the future.

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

Without Medicare or Medicaid, this patient would be paying around six hundred and twenty-nine dollars per month for all ten of her medications. Because this patient does have Medicare and Medicaid, I can estimate that she should only have to pay around two hundred dollars depending on what plan she has under Medicare.

**Reflective Statement of Experience:**

This polypharmacy project helped me to understand how much careful consideration needs to take place when prescribing and reviewing a medication regimen. I now understand how important it is to look at each individual medication and check interactions, contraindications, specific directions, lifestyle interactions, past medical history, client teaching, and even cost of medication to ensure the patient is getting the proper treatment that will do more help than harm to the client. It is vital to consider the cost of the patient's entire medication regimen and check their insurance to see if the patient can even afford to get the medication that they need. Polypharmacy is complicated and needs a nurse to put in the time and research into ensuring that each medication is correct for each individual patient it is being prescribed. Because every patient has a different history and situation, no two patients are the same and no two regimens can be reviewed the same way. It is important, as a nurse, to advocate for your clients and to put in the time and effort to check their medication regimen. A client might leave

the hospital with a prescription that they can't afford and have serious health implications because of this. It is a nurse's role to advocate for the patient and ensure that they have a full understanding of not only the cost of medication, but also what the medication is, any special instructions, adverse effects, interactions, and other patient education so they leave the hospital with a full understanding of their health. A nurse may also have to advocate for the patient to the prescriber of the medication if they feel it does not fit the patient's history or fit in with the regimen.

## References

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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 education, 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**

<b>Criteria</b>	<b>Excellent 40 points</b>	<b>Acceptable 31-39 points</b>	<b>Unacceptable 0-30 points</b>	<b>Points Earned</b>
Each drug should have a completed breakdown within the tables provided, which includes the following: <ul style="list-style-type: none"> <li>● Drug class</li> <li>● Generic name</li> <li>● Trade name</li> </ul>	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	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	___/40

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

	<b>0 points</b>	<b>16-19</b>	<b>0-15 points</b>	
<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"> <li>Do any of the medications interact with each other?</li> </ul> <p>(Please note: if there is an interaction between two medication, you MUST list that interaction on BOTH medications to receive full credit. You may utilize the same verbiage/wording on each medication, we want to know you are thinking about</p>	<p>All medications reviewed and student explained medication interactions.</p>	<p>The student did list some of the potential interactions of the medication(s), but failed to address all potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points)</p>	<p>Student failed to answer question and/or The student did list some of the potential interactions of the medication(s), but failed to address all potential interactions that are serious and/or need close monitoring. (for each medication listed this question is worth two points)</p>	<p>____/20</p>

it when considering each medication)				
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<b>Criteria</b>	<b>Excellent 5 points</b>	<b>Acceptable 4 points</b>	<b>Unacceptable 0 -3 points</b>	<b>Points Earned</b>
Lifestyle interactions:  <ul style="list-style-type: none"> <li>What lifestyle factors counteract with the medications?</li> </ul> (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

<b>Criteria</b>	<b>Excellent 10 points</b>	<b>Average 8-9</b>	<b>Unacceptable 0-7 points</b>	<b>Points Earned</b>
<ul style="list-style-type: none"> <li>Does any of the client's past medical history contradict the use of this medication?</li> </ul>	Student showed knowledge why the client's past medical history would contradict the use of the medication(s).	Student provided answers to the question(s), but failed to answer all the questions and/or the answers provided were inaccurate. (For each medication this question is 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
<b>Criteria</b>	<b>Excellent 10 points</b>	<b>Acceptable 8-9 points</b>	<b>Unacceptable 0-7 points</b>	<b>Points Earned</b>

<ul style="list-style-type: none"> <li>• 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)</li> </ul>	<p>Student showed knowledge of medications and what conditions corresponds with medications</p>	<p>The student provided appropriate indications for some of the medications, but failed to capture all of the appropriate indications for use. (For each medication this question is worth one point)</p>	<p>Student failed to answer the question or The student provided appropriate indications for some of the medications, but failed to capture all of the appropriate indications for use. (For each medication this question is worth one point)</p>	<p>___/10</p>
<p><b>Criteria</b></p>	<p><b>Excellent 20 points</b></p>	<p><b>Acceptable 16-19 points</b></p>	<p><b>Unacceptable 0-15 points</b></p>	<p><b>Points Earned</b></p>

<p>What would you teach the client about taking this medication?</p> <ul style="list-style-type: none"> <li>• What education is needed for the medication? (For each medication listed the student must prioritize two topics for client education)</li> </ul> <p>(You must consider all component(s) of the medication list when answering this question... if there are potential interactions with other medication this may be a priority over general education for this one medication)</p>	<p>Student showed the importance of medication education, and appropriate prioritized client education for the scenario provided.</p>	<p>The student provided some appropriate education for the client, but failed to capture all of the appropriately prioritized education for the client. (Each topic of education is worth one point)</p>	<p>Student failed to answer the question OR The student provided some appropriate education for the client, but failed to capture all of the appropriately prioritized education for the client. (Each topic of education is worth one point)</p>	<p>___/20</p>
<p><b>Criteria</b></p>	<p><b>Excellent</b> <b>10 points</b></p>	<p><b>Acceptable</b> <b>8-9 points</b></p>	<p><b>Unacceptable</b> <b>0-7 points</b></p>	<p><b>Points Earned</b></p>

<p>Is there anything about this medication regimen/ scenario that might indicate a potential difficulty in maintaining compliance with the orders as listed?</p> <ul style="list-style-type: none"> <li>Why would the patient have difficulty maintaining the medication regimen?</li> </ul> <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 regimen</p>	<p>The student indicated some potential reasons that the client may have difficulty, however the student failed to indicate a reason OR an appropriate reason for some of the medications (This question is worth one point for each medication)</p>	<p>Student failed to answer the question OR the student indicated some potential reasons that the client may have difficulty, however the student failed to indicate a reason OR an appropriate reason for some of the medications (This question is worth one point for each medication)</p>	<p>____/10</p>
<p><b>Criteria</b></p>	<p><b>Excellent 10 points</b></p>	<p><b>Acceptable 8-9 points</b></p>	<p><b>Unacceptable 0-7 points</b></p>	<p><b>Points Earned</b></p>

<p>Is there anything about this medication regimen/ scenario that might assist the client in maintaining the medication regimen as ordered?</p> <ul style="list-style-type: none"> <li>• What factors are present to remain compliant?</li> </ul> <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>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 assist with compliance. (This question is worth one point for each medication)</p>	<p>___/10</p>
<p><b>Criteria</b></p>	<p><b>Excellent 10 points</b></p>	<p><b>Acceptable 8-9 points</b></p>	<p><b>Unacceptable 0 points</b></p>	<p><b>Points Earned</b></p>
<ul style="list-style-type: none"> <li>• How much would this medication cost per month if the patient were to pay for them out of pocket?</li> </ul>	<p>Student showed research on medication costs</p>	<p>The student provided accurate research for some of the medications, but failed to provided</p>	<p>Student failed to answer the question OR The student provided accurate research for some</p>	<p>___/15</p>

<p>(best assessment based off of research)</p> <ul style="list-style-type: none"> <li>• What would the client’s monthly out of pocket expense for all 10 medications?</li> </ul>		<p>research for all medications (This question is worth one point for each medication, with the total cost being worth 5 points)</p>	<p>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><b>Criteria</b></p>	<p><b>Excellent 20 points</b></p>	<p><b>Acceptable 16-19 points</b></p>	<p><b>Unacceptable 0-15 points</b></p>	<p><b>Points Earned</b></p>

<p>The student must appropriately format the paper and include all of the following:</p> <ul style="list-style-type: none"> <li>• Entire document 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)</li> <li>• The student provided a rubric attached for grading (3 points)</li> <li>• The student included the provided client scenario on page two of the document (2 points)</li> <li>• The paper included a minimum of five references</li> </ul>	<p>The document included a title page, the rubric, the client scenario, a reference page which included five references that were cited within the document. APA formatting was consistent with the APA manual.</p>	<p>The document did not meet all of the criteria for formatting/referencing. See “criteria” to the left for further breakdown.</p>	<p>The document did not meet all of the criteria for formatting/referencing. See “criteria” to the left for further breakdown.</p>	<p>____/20</p>
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<p>which were cited within the document (each reference with one citation is worth 5 points)</p>				
<p><b>Criteria</b></p>	<p><b>Excellent</b> <b>20 points</b></p>	<p><b>Acceptable</b> <b>16-19 points</b></p>	<p><b>Unacceptable</b> <b>0-15 points</b></p>	<p><b>Points</b> <b>Earned</b></p>
<p>What suggestions might you make to the prescriber and/or client (or questions you might ask the prescriber) to help this client scenario? (think about decreasing the 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"> <li>• Reflective statement of experience should include the following:                             <ul style="list-style-type: none"> <li>-insight into the project itself (a specific example within the project and its implications)</li> <li>-A basic understanding of polypharmacy</li> <li>-A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</li> </ul> </li> </ul>	<p>The students provided reflection showed good insight into the project itself, polypharmacy, and the nurses role in client advocacy</p>	<p>The student provided a reflection, however the reflection lacked one of the following</p> <ul style="list-style-type: none"> <li>-insight into the project itself (a specific example within the project and its implications).</li> <li>-A basic understanding of polypharmacy</li> <li>-A reflection on this student nurses role in this scenario as a client advocate/educator/caregiver</li> </ul>	<p>Student failed to reflect on their project OR the student addressed only of the topics of reflection</p>	<p>___/10</p>
<p><b>Total Points</b></p>				<p>___/200</p>