Team # _____

2024
ASHP Clinical Skills Competition SM
ASHP Local Competition Case

Directions to Clinical Skills Competition Participants

Identify the patient's acute and chronic medical and drug therapy problems. Recommend interventions to address the drug therapy problems using the forms supplied (Patient Case and Pharmacist's Care Plan).

IMPORTANT NOTE: Only the Pharmacist's Care Plan will be used for evaluation purpose.

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Pharmacist's Care Plan

Using the patient's data, you will be able to develop an effective care plan for your patient. Clearly define the health care problems. Health care problems include treatment of all acute and chronic medical problems, resolution of all actual or potential drug-related problems, and identification of any other health care services from which your patient may benefit.

Remember to think about potential medical problems for which your patient may be at risk and disease prevention and disease screening activities that may be appropriate to recommend. Also, don't forget to consider specific patient factors that may influence your goals and recommendations for therapy (e.g., physical, psychological, spiritual, social, economic, cultural, and environmental).

To complete your care plan, specify all of your patient's health care problems that need to be addressed. Then prioritize the problems into one of three categories: (1) Most urgent problem, (2) Other problems that must be addressed immediately (or during this clinical encounter), OR (3) Problems that can be addressed later (e.g. a week or more later/at discharge or next follow up visit). Please note that only one problem should be identified as the "most urgent problem." When identifying individual problems for the case use more specific terms when possible vs general disease conditions. Also, use actual rather than weight-based doses when providing recommendations for therapy.

Then for **each problem** describe the (1) therapeutic goals, (2) recommendations for therapy, and (3) monitoring parameters and endpoints. Your monitoring parameters should include the frequency of follow-up and endpoints should be measurable by clinical, laboratory, quality of life, and/or other defined parameters (e.g., target HDL is greater than 50 mg/dL within 6 months).

Team #_____

LOCAL CASE
2024 ASHP CLINICAL SKILLS COMPETITION

Demographic and Administrative Information

Name: James Delaney	**Patient ID:** 09012023
Sex: Male	**Room & Bed:** 5 South Room 500
Date of Birth: 12/25/1946	**Admitting Physician:** Dr. M. Utley
Height: 5'7" / **Weight:** 176 lbs / **Ethnicity:** White	**Religion:** Presbyterian
Prescription Coverage Insurance: Medicare	**Pharmacy:** Coral Pharmacy
Copay: $11	**Annual Income:** $137,000

Chief Complaint

"I am short of breath and just don't feel well."

History of Present Illness

Mr. Delaney is a 77 y.o. male who presented to an outside freestanding emergency department (ED) this morning for shortness of breath, weakness, muscle aches, chills, productive cough, nausea, and lack of appetite since yesterday. He has only been able to keep down small amounts of water, tea, and electrolyte drinks. Mr. Delaney reports he was exposed to family members who were recently diagnosed with influenza. He has not been hospitalized or received any antibiotics within the last 6 months. Mr. Delaney was transferred to your hospital this afternoon for continued management after being diagnosed with influenza A and suspected concomitant bacterial pneumonia. First doses of antimicrobials were initiated at the outside ED including oseltamivir 75 mg PO, vancomycin 1750 mg IV, and cefepime 1 gram IV, which were tolerated without any issues.

Past Medical History

Type 2 diabetes mellitus – diagnosed in 2010
Diabetic peripheral neuropathy – diagnosed in 2015
Chronic obstructive pulmonary disease, GOLD stage 2, group E – diagnosed in 2016
Stage 5 chronic kidney disease on peritoneal dialysis (9-hour dwell time every night) – diagnosed in 2018
Chronic coronary disease – diagnosed in 2020
Non-ST segment elevation myocardial infarction with placement of two drug-eluting stents – diagnosed 10 months ago

Outpatient Drug Therapy

Prescription Medication & Schedule	Duration Start–Stop Dates	Prescriber	Pharmacy
Albuterol 90 mcg MDI, 2 inhalations PO Q6H PRN shortness of breath	2016-present	Dr. R. Greenidge	Coral
Aspirin 81 mg PO daily	2020-present	Dr. R. Greenidge	Coral
Atorvastatin 80 mg PO daily	2021-present	Dr. N. Shakoor	Coral
Carvedilol 6.25 mg PO BID	2021-present	Dr. N. Shakoor	Coral
Clopidogrel 75 mg PO daily	2021-present	Dr. N. Shakoor	Coral
Dialyvite (renal multivitamin) PO daily	2018-present	Dr. R. Greenidge	Coral
Insulin aspart pen 4 units subcutaneously TID with meals	2010-present	Dr. R. Greenidge	Coral
Insulin glargine vial 12 units subcutaneously QAM	2010-present	Dr. R. Greenidge	Coral
Losartan 50 mg PO daily	2020-present	Dr. R. Greenidge	Coral
Mometasone 200 mcg/formoterol 5 mcg MDI, 2 inhalations PO BID	2020-present	Dr. R. Greenidge	Coral
Pregabalin 50 mg PO QHS	2018-present	Dr. R. Greenidge	Coral
Tiotropium 2.5 mcg Respimat, 2 inhalations PO daily	2019-present	Dr. R. Greenidge	Coral

Non-Prescription Medication/Herbal Supplements/Vitamins	Duration Start–Stop Dates	Prescriber	Pharmacy
Acetaminophen 500 mg PO Q6h PRN pain/fever	2015-present. Last dose this AM prior to presentation to outside ED.		
Dextromethorphan 5 mg/guaifenesin 100 mg/5mL, 10 mL PO Q6H PRN cough/congestion	Started yesterday. Last dose this AM prior to presentation to outside ED.		

Medication History
Mr. Delaney reports he usually takes his medications as prescribed, rarely missing a dose. However, he has not taken any insulin today or yesterday or checked his blood sugar (usually checks 3 times per day) due to not feeling well.

Allergies/Intolerances
Penicillin (rash)
Lisinopril (cough)
Ciprofloxacin (rash)

Surgical History
Drug-eluting stents x2 (10 months ago)
Peritoneal dialysis access (2018)

Family History
Father – type 2 diabetes mellitus, hypertension, hyperlipidemia, myocardial infarction at age 70. Passed away at age 81 from heart disease.
Mother – asthma, hypertension, chronic kidney disease. Passed away at age 83 from pneumonia.
Sisters (2) – one sister with hypertension & hyperlipidemia, second sister with asthma & hypertension. Both sisters are still living.

Social History
Tobacco: former smoker (quit 10 years ago)
Alcohol: drinks socially (3-4 beers on the weekends)
Lives at home with wife
Occupation: retired music teacher

Immunization History
Influenza (inactivated): 11/2023
COVID-19 (Moderna vaccine): up to date per most recent guidelines
Pneumococcal: PPSV23 (7/2010), PCV13 (10/2011)
Zostavax (live attenuated zoster vaccine): 10/2011
Tdap: 9/2019
Hepatitis B series: completed 3/2019

Review of Systems (source: patient)
Constitutional: feeling fatigued and weak, febrile
HEENT: unremarkable
Respiratory: positive for productive cough, shortness of breath
CV: positive for chest pain with coughing, no edema
GI: positive for nausea, loss of appetite x24 hours
GU: no dysuria, urgency, or frequency
MSK: positive for muscle aches
Skin: normal appearance

Neurological: pain in bilateral lower extremities due to neuropathy
Psychiatric: mood normal

Physical Exam
General: well-developed and well nourished, no acute distress, alert and oriented, appears stated age
Head: normocephalic and atraumatic without any obvious abnormalities
Eyes: pupils equal, round, and reactive to light and accommodation, extraocular muscles are intact, conjunctivae are clear
Neck: supple, symmetrical, no adenopathy
Neuro: alert and oriented to person, place, time and event, cranial nerves are intact, motor function and sensation of all four extremities intact bilaterally, gait is normal, Glasgow Coma Scale score 15
Lungs: crackles, rales, and decreased breath sounds bilaterally on auscultation, no signs of respiratory distress
CV: normal rate and rhythm, no murmurs, rubs, or gallops
Abdomen: soft, non-tender without distention, bowel sounds present, peritoneal dialysis catheter normal appearing
Skin: warm, dry and intact, no rashes, lesions, or petechiae
Extremities: atraumatic without obvious abnormalities, muscle strength 4/5 bilaterally, capillary refill normal, pulses detected

Vital signs
HR: 89 bpm
RR: 20 bpm
O2 Saturation: 94% on 3 liters of supplemental oxygen via nasal cannula
BP: 111/60 mm Hg
Temp: 102.1°F (39.5°C)
Pain: 6 on a scale of 0 to 10 (0 = no pain, 10 = most severe pain)

Labs and Microbiology

	Office Visit 3 months ago	**This morning at outside ED**	**This afternoon on admission to your hospital**
Metabolic Panel			
Na (mEq/L)		131	132
K (mEq/L)		4.7	4.5
Cl (mEq/L)		95	97
CO_2 (mEq/L)		31	30
BUN (mg/dL)		64	68
SCr (mg/dL)		12.9	13.7
Glucose (mg/dL)		405	387
Calcium (mg/dL)		8.6	8.7
Phosphorus (mg/dL)		4.1	4
Magnesium (mg/dL)		1.8	1.9
Albumin (g/dL)		3.3	3.2
AST (international units/L)		21	23
ALT (international units/L)		14	16
Total bilirubin (mg/dL)		0.6	0.7
CBC			
WBC (K/mm^3)		15.1	15.3
Hgb (g/dL)		10.5	10.4
Hct (%)		29	28.3
Plt (K/mm^3)		165	168
Neutrophils (%)		87	

Segs (%)			83
Bands (%)			10
Eosinophils (cells/microliter)		350	335
Fasting Lipid Panel			
Total cholesterol (mg/dL)	126		
LDL (mg/dL)	68		
HDL (mg/dL)	35		
Triglycerides (mg/dL)	114		
Other			
Hemoglobin A1c (%)		9.1	
Troponin, high-sensitivity (pg/mL)		< 20	
BNP (pg/mL)		< 100	
Procalcitonin (ng/mL)		0.87	
Lactic Acid (mg/dL)			1.8

Other Diagnostic Tests

Arterial Blood Gas (on room air upon presentation to outside ED)

pH	7.31
pCO2 (mmHg)	52
pO2 (mmHg)	71
HCO3 (mEq/L)	29
SaO2 (%)	83
Hgb (mg/dL)	10.3
FiO2 (%)	21

	This morning at outside ED	**This afternoon on admission to your hospital**
MRSA (nares)		Negative
Influenza A/B	Positive for influenza A	
RSV	Negative	
COVID-19	Negative	
Blood cultures (2 sets)	Results pending	Results pending
Sputum culture	Results pending	
Chest X-ray	New right lower lobe (RLL) opacity	Progression of RLL opacity
EKG		NSR, rate 88, QTc 415, no ST segment or T wave abnormalities

Admission Medications	**Start Date**
Acetaminophen 650 mg PO Q6H PRN pain or fever (first dose at outside hospital)	Now
Albuterol 2.5 mg/Ipratropium 0.5 mg oral inhalation solution, 1 ampule via nebulizer Q6H PRN shortness of breath	Now
Aspirin 81 mg PO daily	Tomorrow @0900
Cefepime 1 gram IV Q24H (first dose at outside ED @1000)	Tomorrow @0900
Dextrose 50% injection (hypoglycemia protocol), 25 grams/50 mL IV push PRN hypoglycemia. Use if patient unable to	Today @1700

swallow or NPO with IV access. Recheck blood glucose in 15 minutes. Repeat dose if glucose < 70 mg/dL and notify provider.	
Glucagon injection (hypoglycemia protocol), 1 mg IM PRN hypoglycemia. Use if patient unable to swallow or NPO without IV access. Recheck blood glucose in 15 minutes. Repeat dose if glucose < 70 mg/dL and notify provider.	Today @1700
Glucose PO gel (hypoglycemia protocol), 15 grams PO PRN hypoglycemia. Use if patient able to swallow. Recheck blood glucose in 15 minutes. Repeat dose if glucose < 70 mg/dL and notify provider.	Today @1700
Heparin 5000 units subcutaneously Q8H	Today @2100
Insulin regular 5 units IV (at outside ED @1030)	Not continued
Lactated Ringer's IV continuous infusion @100 mL/hr	Now
Low dose sliding scale insulin (correction) aspart subcutaneously four times daily (AC + QHS) Blood Glucose (mg/dL) Insulin Dose --- < 70 Initiate hypoglycemia protocol 70-139 0 units 140-180 2 units 181-240 3 units 241-300 4 units 301-350 6 units 351-400 8 units > 400 10 units + notify provider for further instructions	Today @1700
Oseltamivir 75 mg PO BID (first dose at outside ED @1000)	Today @2100
Pregabalin 50 mg PO QHS	Today @2100
Vancomycin 1000 mg IV per pharmacy for PD dosing	Dose by level in 48 hours
Vancomycin 1750 mg IV (first dose at outside ED @1000)	Not continued

Admission Notes:

Assessment:

Patient is febrile with pneumonia, requiring supplemental oxygen on arrival but is in no acute distress. Labs were drawn at the outside ED this morning and some repeated on admission to your hospital. Two sets of blood cultures and a sputum culture collected at the outside ED are pending, repeat blood cultures collected at your hospital are also pending. Respiratory viral tests were positive for Influenza A. No known recent hospitalizations, broad-spectrum IV antibiotics, or positive recent microbiology culture history. Patient has antimicrobial allergies/intolerances to penicillin (rash) and ciprofloxacin (rash). Patient is on peritoneal dialysis with a 9-hour dwell time every night. Two peripheral IV lines are present in the right and left antecubital fossae.

Plan:

James Delaney is transferred from an outside freestanding ED to a medicine ward at your hospital for a higher level of care. The internal medicine care team has ordered a regular diet during the hospital stay. As a member of the patient's care team, please address pharmacotherapy recommendations with respect to treatment of his influenza and presumed bacterial pneumonia as well as his other disease states to optimize this patient's care in the hospital and at discharge.

Team # _____

2024
ASHP Clinical Skills Competition SM
ASHP Local Answer Key

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ASHP Clinical Skills Competition - Pharmacist's Care Plan – 2024 Answer Key (Local Case)

Evaluated for competition

Problem Identification and Prioritization with Pharmacist's Care Plan

A. List all health care problems that need to be addressed in this patient using the table below.
B. Prioritize the problems by indicating the appropriate number in the "Priority" column below:
   1 = Most urgent problem (Note: There can only be one most urgent problem)
   2 = Other problems that must be addressed immediately or during this clinical encounter; **OR**
   3 = Problems that can be addressed later (e.g. a week or more later)

**Please note, there should be only a "1", "2", or "3" listed in the priority column, and the number "1" should only be used once.*

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
Community-Acquired Pneumonia	**1**	• Optimize antimicrobials: ○ **Influenza A Pneumonia** ▪ **Oseltamivir**: discontinue oseltamivir BID regimen; 75 mg PO x 1 dose is the full treatment regimen in the setting of peritoneal dialysis (PD) ○ **Bacterial Community-Acquired Pneumonia (CAP)** ▪ **Ceftriaxone**: change cefepime to ceftriaxone 1-2 g IV Q24h in setting of no overt Pseudomonas risk factors, no renal adjustment for PD. Cross-reactivity between penicillins and cephalosporins is low, particularly with later generation cephalosporins. ▪ **Azithromycin**: add azithromycin 500 mg IV or PO Q24H for full coverage in a patient with significant co-morbidities, no renal adjustment for PD ▪ **Vancomycin**: discontinue vancomycin in setting of negative MRSA nares on admission and no overt MRSA risk factors ○ **Alternatives**: ▪ **Other cephalosporins (preferred)**: another cephalosporin may be used instead of ceftriaxone • Cefotaxime 1-2 g IV Q24h (renally adjusted for PD based on usual dose of 1-2 g IV Q8H) • Ceftaroline 200 mg IV Q12H (renally adjusted for PD based on usual dose of 600 mg IV Q12H) ▪ **Alternatives to azithromycin:**	Therapeutic Goals: • Infection resolution • Reduce mortality • Reduce morbidity such as more deep-seated infections, respiratory failure • Symptom improvement • Temperature reduction to < 100.4°F (< 38°C), eventually maintain normal range 96.8 to < 100.4°F (36 to < 38°C) Monitoring Parameters: • Signs of infection including WBC, fever, hypotension and/or tachycardia and/or tachypnea, mental status • Blood and sputum culture results • Adverse effects of cephalosporins: hypersensitivity, diarrhea, *C difficile* infection, rash • Other adverse effects: ○ Macrolides: hypersensitivity, diarrhea, ototoxicity, prolonged QT interval, hepatotoxicity OR

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		• **Doxycycline**: 100 mg IV or PO BID • Follow up on blood cultures from both hospitals and sputum culture from outside hospital. Adjust therapy based on if any microbial growth occurs and the sensitivities reported. • Duration of therapy for CAP is guided by the patient achieving clinical stability (normalization of vital signs, ability to tolerate PO intake including nutrition, normal mentation) and for no less than 5 days of total therapy (IV/PO combined). Average duration is 5-7 days. ○ Azithromycin is only 3 days at 500 mg Q24h due to the long half life • **IV Antibiotic Administration (BONUS):** ○ **Ceftriaxone IV + Azithromycin IV**: administer in separate IV lines or flush single IV line well before and after administration of each medication as ceftriaxone may precipitate with azithromycin ○ **Ceftriaxone IV + Lactated Ringer's continuous infusion**: administer in separate IV lines or pause Lactated Ringer's infusion and flush single IV line well before and after administration of ceftriaxone as ceftriaxone may precipitate with Lactated Ringer's solution • **Update Allergy/ADR Profile (BONUS):** document cefepime tolerance since patient received medication without issue • **Supportive Care:** ○ Continue Acetaminophen 650 mg PO/PR Q6H PRN to reduce pain and/or fever ▪ Dosing ranges from 325-650 mg PO/PR Q4-6H, or 1000 mg PO Q6H PRN ▪ Maximum total daily dosing: 3000-4000 mg ○ Continue Lactated Ringer's IV continuous infusion at 100 mL/hr for fever and hydration ▪ Sodium Chloride 0.9% or PlasmaLyte IV solutions are acceptable alternatives if fluid change desired ○ Add antitussive therapy for cough that is resulting in chest discomfort such as one of the following: ▪ Benzonatate capsules 100-200 mg PO TID PRN cough ▪ Dextromethorphan/guaifenesin oral liquid	○ Doxycycline: hypersensitivity, diarrhea, photosensitivity, esophagitis • Vital signs no less than Q4H and as needed • Pain scores 1-3 range out of 10, or as acceptable per the patient • Relief of acute pain-related symptoms • LFTs for acetaminophen if prolonged use • Total daily dose of acetaminophen does not exceed 4000 mg from all sources

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		• Several dosing strategies exist, max dose of dextromethorphan is 120mg/24hrs and guaifenesin is 2400mg/24hrs. Max frequency is Q4H.	
COPD	**2**	COPD is GOLD Stage 2, Group E for which a LAMA + LABA is indicated. Eosinophils are >/= 300 cells/microliter thus an ICS would also be appropriate. • Wean off supplemental oxygen therapy as tolerated to maintain adequate oxygen saturation of at least 92% in the acute phase, then 88-92% in the setting of COPD once patient has achieved clinical stability • Continue intermittent breathing treatments PRN such as one of the following: o Albuterol/ipratropium via nebulizer Q6H PRN as already ordered o Albuterol (any concentration), 1 ampule via nebulizer Q4-6H PRN with or without separate ipratropium, 1 ampule via nebulizer Q6H PRN o Albuterol MDI, 1-2 inhalations PO Q4-6H PRN, with a spacer is preferred but without a spacer is also acceptable o Albuterol/ipratropium Respimat inhaler, 1 inhalation PO Q4-6H PRN • Resume maintenance inhalers tomorrow if patient is stable and able to tolerate. o **Home inhalers**: Resume mometasone/formoterol MDI and tiotropium Respimat. Recommend spacer with MDI inhaler. OR o **Single Inhaler**: Change to single inhaler with triple therapy (LABA/LAMA/ICS). Options are below. Recommend spacer with MDI inhaler. ▪ Budesonide 160 mcg/glycopyrrolate 9 mcg/formoterol 4.8 mcg MDI (Breztri), 2 inhalations PO BID ▪ Fluticasone 100 mcg/umeclidinium 62.5 mcg/vilanterol 25 mcg DPI (Trelegy), 1 inhalation PO once daily	Therapeutic Goals: • Relieve symptoms • Improve exercise tolerance • Improve health status • Prevent disease progression • Prevent exacerbations • Reduce mortality Monitoring Parameters: • Oxygen saturation via continuous pulse oximetry • Vital signs – BP, HR, RR • Frequency of nebulized medication or rescue inhaler use • Symptoms of a COPD exacerbation including SOB, cough, increased sputum production, sputum purulence, chest pain or discomfort • Inhaler technique with and without spacer • Adverse effects of inhalers/nebulized medications such as tachycardia, cough, hypokalemia, cardiac dysrhythmias, tremor, dry mouth, oral candidiasis, and hoarse voice • Lung function tests

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		• Change home carvedilol to a cardio-selective beta-blocker. Non-selective beta-blockers may exacerbate COPD symptoms. Cardio-selective beta-blocker options indicated for MI include (approximate equivalent doses to carvedilol 6.25 mg BID): ○ Atenolol 25 mg PO daily ○ Metoprolol tartrate (IR) 25 mg PO BID or succinate (XL) 50 mg PO daily	
Type 2 DM	**2**	Diabetes is not well controlled with an A1C of 9.1%. Blood glucose is elevated on admission. • **Insulin Regimen** (during inpatient stay): ○ **Sliding scale (correction) insulin + defer basal insulin** ▪ Continue low dose sliding scale (correction) insulin aspart while inpatient status. ▪ Hold home basal insulin until pneumonia improves and sliding scale insulin requirements can be assessed (e.g. 24-48h, or longer until clinically stable). Once pneumonia improves, resume basal insulin glargine at 20-50% reduced dose due to variable PO intake and clinical status. OR ○ **Sliding scale (correction) insulin + resume basal insulin on admission** ▪ Continue low dose sliding scale (correction) insulin aspart while inpatient status ▪ Resume basal insulin glargine on admission at reduced dose (20-50% decrease) due to variable PO intake and clinical status. • Diabetic or cardiac diet during inpatient stay • Add a GLP-1 agonist for A1C reduction and ASCVD benefits as well as intermediate to very high weight loss benefits in this overweight patient (BMI = 27.6 kg/m$^{2)}$. No CKD benefits as patient is already on	Therapeutic Goals: • Hgb A1C < 8% • Fasting blood glucose 80-130 mg/dL • During inpatient care, maintain blood glucose between 140-180 mg/dL avoiding extremes (low or high) • Prevent hypoglycemia • Prevent long term adverse effects of hyperglycemia (micro- and macrovascular events) • Healthy lifestyle choices complimenting pharmacotherapy Monitoring Parameters: • Blood glucose four times daily • A1C < 8% based on age and multiple comorbidities • Renal function (that dialysis is adequately maintained for this patient) • Signs of DKA/HHNKS • Diet and exercise • Weight • Adverse effects of insulin such as hypoglycemia, weight gain, injection-site reactions

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		dialysis. An SGLT2i is contraindicated in dialysis. GLP-1 agonist options include the following (starting doses) and are titrated as tolerated: ○ Dulaglutide 0.75 mg subcutaneously once weekly ○ Liraglutide 0.6 mg subcutaneously once weekly ○ Semaglutide 0.25 mg subcutaneously once weekly or 3mg PO QAM at least 30 minutes before breakfast ○ Tirzepatide 2.5 mg subcutaneously once weekly • Recommend continuous glucose monitoring (CGM) at discharge for enhanced blood glucose control	• Adverse effects of GLP-1 agonists such as nausea/vomiting, diarrhea, pancreatitis, injection-site reactions
VTE Prophylaxis	**2**	VTE risk factors: age, immobility, acute infection • Given patient has stage 5 CKD and receives peritoneal dialysis, recommend UFH. Heparin dose is 5000 units subcutaneously Q8-12 hours. Continue for the length of hospitalization or until patient is fully ambulatory. • A mechanical method (e.g. SCDs) would be an alternative to heparin. However, patient is at higher risk for VTE, therefore, pharmacologic prophylaxis is preferrable.	Therapeutic Goals: • Prevent venous thromboembolism events Monitoring Parameters: • CBC daily at a minimum to assess for HIT and laboratory signs of bleeding • Sign and symptoms of bleeding such as blood in urine, bright red or dark tarry stools, large or easy bruising, coughing or vomiting bright red or coffee-ground looking substance • Signs and symptoms of VTE such as pain, swelling, redness, warmth in extremities, acute onset or worsening of shortness of breath, BE FAST for CVA B = balance loss E = eyesight changes F = facial drooping A = arm weakness S = speech difficulties T = time to call 911
Diabetic Peripheral Neuropathy	**3**	• Continue pregabalin 50 mg PO QHS. If pain is not back to baseline or acceptable level per patient after acute illness, increase pregabalin to 75 mg QHS. • Recommend additional options for chronic pain control on discharge including but not limited to optimizing glycemic control, optimizing blood	Therapeutic Goals: • Pain scores 1-3 range out of 10, or as acceptable per the patient • Prevent progression of neuropathy

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		pressure control, optimizing lipid control, proper foot care, and pain psychology, acupuncture, exercise such as aerobic/balance/resistance, TENS (transcutaneous electrical nerve stimulation) unit, SCS (spinal cord stimulator), dietary modifications	Monitoring Parameters: • Pain scores • Adverse effects of pregabalin including sedation/respiratory depression, peripheral edema, weight gain, dry mouth, visual disturbances
Stage 5 CKD/ Peritoneal Dialysis	**3**	Patient receives peritoneal dialysis with a dwell time of 9 hours each night. • Avoid nephrotoxins • Renally adjust medication regimens for peritoneal dialysis • Ensure 9-hour dwell time each night. If complications develop with peritoneal dialysis, patient may be temporarily switched to an alternate form of renal replacement therapy such as hemodialysis. Adjust medications for alternative renal replacement therapy as indicated. • Resume ARB to preserve residual renal function, for MI indication, and BP control • Resume Dialyvite on discharge	Therapeutic Goals: • Prevent complications of peritoneal dialysis Monitoring Parameters: • Electrolytes • Residual renal function • CBC • Vital signs – BP, HR, RR • Volume status • Symptoms of peritonitis or PD catheter related infection • Adverse effects of ARBs such as hypotension, orthostasis, syncope, hyperkalemia, diarrhea, myalgias
CCD/NSTEMI	**3**	Optimization of therapy for chronic coronary disease and NSTEMI with placement of 2 drug-eluting stents 10 months ago. • Continue low-dose aspirin. • Resume clopidogrel for DAPT during inpatient stay. Continue DAPT for 2 more months after discharge (1 year from NSTEMI) then reassess risks/benefits and need for DAPT for up to 3 years post-MI. • Resume high-intensity statin for secondary prevention and LDL reduction. • Resume ARB for secondary prevention, preserve residual renal function and BP control. BP goal is < 130/80 mmHg. • Cardiac or diabetic diet during inpatient stay.	Therapeutic Goals: • Reduce mortality • Secondary prevention of ACS • Improve quality of life • Prevent stent complications Monitoring Parameters: • Vital signs • CBC • CMP • Fasting lipid panel • Diet and exercise

Health Care Problem	Priority	Recommendations for Therapy	Therapeutic Goals & Monitoring Parameters
		• Continue beta-blocker therapy for 2 more months (1 year from NSTEMI) then reassess need for continued beta-blocker use such as reduced LVEF, angina, arrhythmias, or uncontrolled hypertension • Change home carvedilol to cardio-selective beta blocker as described above in COPD section. • Add a GLP-1 agonist with ASCVD benefits as described in above Diabetes section.	• Adverse effects of ARBs such as hypotension, orthostasis, syncope, hyperkalemia, diarrhea, myalgias • Adverse effects of beta-blockers such as bradycardia, hypotension, syncope • Signs of bleeding from DAPT such as blood in urine, bright red or dark tarry stools, large or easy bruising, coughing or vomiting bright red or coffee-ground looking substance • Adverse effects of statins such as muscle pain or weakness, hepatotoxicity, rhabdomyolysis • Adverse effects of GLP-1 agonists such as nausea/vomiting, diarrhea, pancreatitis, injection-site reactions
Immunizations	**3**	Review immunization status • Needs annual influenza vaccine IM x1 dose • Needs PCV20 vaccine IM x1 dose >/= 5 years from PPSV23 to complete series per the most recent 2023 CDC/ACIP recommendations ○ Though not yet incorporated into CDC/ACIP recommendations, the newly approved PCV21 vaccine IM x1 dose (approved June 2024) would also be acceptable instead of PCV20 based on shared decision making between the provider and patient • Needs updated recombinant zoster vaccine series (Shingrix) IM 1st dose at 0 months and 2nd dose at 2-6 months after 1st dose • Recommend RSV vaccine IM x1 dose	Therapeutic Goals: • Reduce incidence of vaccine preventable diseases Monitoring Parameters: • Hypersensitivity reactions • Injection-site reactions • Other adverse effects such as fatigue, headache, muscle pain, nausea, diarrhea