ASHP CLINICAL SKILLS COMPETITION
PHARMACIST'S PATIENT DATA BASE FORM

Demographic and Administrative Information		
Name WK	Patient ID 9949763	Room No. 5224
Address 2312 Roncroft Drive	MD Greenberg	
Cleveland, OH	Pharmacy Cinema Center Pharmacy	
Date of Birth 4/17/49 (age 51)	Race Caucasian	Gender F
Height 66" Weight 78 kg	Religion not specified	
Admission Date ~~11~~ 9/1/00	Occupation computer systems analyst	

History of Present Illness

A patient with a history or coronary artery disease and angine reports that in frustration over angina associated with moderate physical activity, she decided to spend the weekend in bed reading and watching television. This morning she awakened with significant pain and swelling of her left lower extremity, which on inspection is warm and erythematous. She presented to the emergency room, and a duplex ultrasound was postive for deep vein thrombosis.

Past Medical History/Surgery

Coronary artery disease described as microvascular disease not amenable to intervention, s/p cardiac catheterization 6/00
Angina with moderate exertion

Family and Social History

Mother alive at age 82 with HTN; Father died at age 66 of acute MI. Works as a systems analyst for a computer company. Drinks 1-2 alcoholic beverages per day. Does not and never has smoked.

Lifestyle

Lives alone with no children or pets. Pt has a large support system of friends and colleagues. Previously enjoyed an active lifestyle but has experienced a dramatic decline in physical activity due to angina associated with moderate exertion. Pt is extremely frustrated by her inability to participate in usual activities and reports that she feels depressed and discouraged, which in part led to her decision to spend the weekend in bed. She is also frustrated with her cardiologist, who she feels has not offered her appropriate therapy for control of angina.

Vital Signs/Laboratory Data—Initial/Followup		
Date	9/1	9/2
Wt	78kg	
Temp	37.1°C	37.2°C
BP (supine)	130/70	128/72
BP (standing)		
Pulse (supine)	68	72
Pulse (standing)		
Na	137	
K	4.8	
Cl	96	
CO_2	26	
BUN	14	
Cr	0.7	
Glu	82	
Glyc Hgb		
Ca		
Phos		
T Prot		
Alb		
Hgb		
Hct	38	
WBC		
PO_2		
AST		
ALT		
LDH		
Alk Phos		
Bili		
Platelets	360	
PT/INR	14.2/1.0	18.8/1.7
APTT	28	68
Total Chol	198	
LDL	135	
HDL	31	
TG	160	

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(continued)

Current Drug Therapy

Drug Name/Dose/Strength/Route	Prescribed Schedule	Duration Start-Stop Dates	Compliance/Dosing Issue
1. Heparin 6000 U bolis, then 1400 U/hr	Continuous infusion	9/1/00	Continue until INR>2.0
2. Warfarin 10 mg po	qam	9/1/00	Continue until INR>2.0
3. Isordil 80 mg po	Q6h	9/1/00	Increased from 60 mg q6h prior to admission
4. Aspirin EC 325 mg	qd	Prior to admission	
5. Diltiazem CD 180 mg po	qd	Prior to admission	
6. Cimetidine 200 mg po	bid prn	Prior to admission	Pt self initiated due to periodic GI upset associ- with ASA use

Medications PTA

1. Isordil 60 mg po Q6h (originally prescribed as 20mg tid; pt has increased dose and frequency on her own)
2. Aspirin EC 325 mg po qd
3. Diltiazem CD 180 mg po qd
4. Cimetidine 200 mg po bid prn
5.

Allergies/Intolerances

❑ No known drug allergies None

Allergen	Reaction

Social Drug Use

Alcohol: 1-2 drinks per day

Caffeine: 2 cups of coffee 2 Diet Cokes daily

Tobacco:

Cost of Meds/month
<$20.00
Insurance: private
Copay: $5 per Rx
Medicaid
Annual Income
$ 90,000

Notes

PE: Gen: Pleasant but concerned woman in NAD
VS: BP 130/70; P 88 (supine); RR 16; T 37.1(C
Height 66", weight 78 kg
HEENT: deferred
Skin: Pale and dry; no tumors, moles, or lesions
Neck: No JVD, lymphadenopathy, or thyromegaly
Cor: RRR; normal S1 and S2, no S3 or S4; no m/r/g
Lungs: CTA & P
Abdomen: Deferred
GU: Deferred
Extremities: LLE warm, swollen, erythematous, no obvious cord; normal ROM; no evidence of arthritis; pulses 2+
Neuro: A & O x 3; CN II-XII intact; DTRs 2+ throughout; negative Babinski

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Impressions/Plan:

1. Admit to hospital for management of acute DVT
2. Start IV heparin and initiate warfarin therapy
3. Increase anti-anginal therapy
4. Psychiatry consult for depression

Admission Orders:

1. Admit to internal medicine service
2. Complete bed rest
3. Elevate LLE
4. Heart Healthy diet
5. Vital signs Q shift
6. Obtain daily I & O and body weight
7. qam Chem 7, PT/aPTT
8. Meds:
   - Unfractionated heparin 80 U/kg bolus, 18 U/kg/hr and adjust per protocol to maintain aPTT 60-100 seconds
   - warfarin 10mg po qpm
   - continue pre-admission meds
   - increase isosorbide to 80mg q6h

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ANSWER KEY

Health Care Need*	Priority	Pharmacotherapeutic Goals	Recommendations for Therapy	Monitoring Parameter(s)	Desired Endpoint(s)	Monitoring Frequency
Warfarin therapy for treatment of acute DVT	1	1. Prevent early over-anticoagulation associated with initial dramatic response to 10mg dose. 2. Reach lower limit of therapeutic range and estimate maintenance dosing requirement. 3. Maintain therapeutic INR throughout course of therapy while preventing bleeding complications and recurrent thromboembolism.	1. Reduce today's dose of warfarin to 2mg 2. Adjust daily during initiation therapy in response to daily INR results. 3. Continue warfarin for a minimum of 3 months, with a repeat duplex ultrasound at 3 months to establish resolution of clot.	a. PT/INR b. Hct c. Bleeding	a. INR 2.0-3.0 b. Remain at aor above baseline c. Avoidance of bleeding	a. Daily during initiation therapy, then prn b. Daily during hospitalization, then prn c. Self-observation of signs/sx of bleeding should be ongoing throughout the course of therapy
Heparization for treatment of acute DVT	2	1. Provide outpatient therapy with LWMH to reduce hospitalization costs and improve quality of life. 2. Prevent recurrent DVT and new PE by providing adequate anticoagulation early in therapy.	1. Change from unfractionated heparin to enoxaparin 80mg SQ q12h 2. Continue LMWH for a minimum of 4 days and until INR has been therapeutic for 2 consecutive days	a. Plts b. Signs/sx of thromboembolism	a. Early recognition of heparin-induced thrombocytopenia to prevent complications b. Early recognition of signs/sx of DVT/PE	a. Qod while on LMWH b. Self observation of signs/sx of thromboembolism should be ongoing throughout the course of parenteral and oral anticoagulation
Medical management of angina	3	Prevent and relieve symptoms using adequate doses of effective medications and dosing schedules that enhance compliance and avoid tolerance, while limiting reduction in blood pressure and heart rate.	1. Change isordil to Imdur 240mg po qd 2. Change diltiazem CD to metoprolol 25mg po q12h	1. Symptoms of angina 2. Blood pressure 3. Heart rate 4. Adverse effects	a. No symptoms at rest or with activity b. avoid BP< 100/60 or sx of hypotension c. Avoid HR<50 or sx of bradycardia	a. By self-observation throughout therapy b. qshift during initiation, then prn c. qshift during initiation, then prn

*Health care needs include actual and potential medical problems and drug-related problems as well as any other health care services from which your patient may benefit.

Health Care Need*	Priority	Pharmacotherapeutic Goals	Recommendations for Therapy	Monitoring Parameter(s)	Desired Endpoint(s)	Monitoring Frequency
Medical management of microvascular coronary disease	4	Lower LDL and increase HDL in an attempt to reduce or reverse atherogenesis while avoiding toxicities associated with lipid lowering therapy.	Initiate simvastatin 10mg po qpm	1. LFTs 2. Fasting cholesterol panel	1. No elevation in results above baseline 2. HDL >35; LDL<130	1. Baseline, 6-8wks x1yr, then q6mo 2. q4-8 weeks after initiation or does change, then q6mo
Medical management of GI symptoms associated with ASA use	5	Aspirin required for management of CAD. However, need to select a dose of aspirin that does not increase the risk of major bleeding with concomitant warfarin, and if H2 blockers are necessary, need to select ont that does not inhibit warfarin metabolism.	1. Decrease ASA to 81 mg po qd 2. Discontinue cimetidine prn 3. Offer rantidine 75mg-150mg qhs if symptoms persist	GI symptoms	Elimination of symptoms using lower does of aspirin	Self observation throughout course of therapy
Treatment of depression	6	Adequate medical management for angina should allow patient to resume normal activities without reliance on antidepressant medications or treatment by a psychiatrist	1. Follow plan for angina control noted above 2. Cancel psychiatry consult 3. Offer counseling if patient expresses an interest in this intervention	Self observation	Increased physical activity, motivation and mood	Self observation throughout course of therapy
SQ injection technique teaching	7	Provide adequate instruction to allow patient to self administer LWMH by SQ injection at home	Assist patient with completion of patient-education program	Ability of self inject	Succesful delivery of SQ medication	Pharmacist to observe first self injection to assure ability
Warfarin patient education	8	Provide detailed instruction regarding use and monitoring	Assist patient with completion of patient-education program	Ability to answer a series of questions related to essentials of warfarin therapy following completion of the education program	Working nowledge of essential precautions and considerations for warfarin therapy	Demonstration of knowledge will be required throughout the course of therapy

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Health Care Need*	Priority	Pharmacotherapeutic Goals	Recommendations for Therapy	Monitoring Parameter(s)	Desired Endpoint(s)	Monitoring Frequency
Anticoagulation Followup	9	Arrange ongoing assessment and management through an outpatient anticoagulation clinic	Refer to hospital-based pharmacist-managed anticoagulation clinic	a. PT/INR b. Bleeding c. Thromboembolic recurrence	a. INR 2-3 b. Avoidance of bleeding complications c. Avoidance of thromboembolic recurrence	a. Daily until initial maintenance does established, then per protocol (max q4weeks) b. Self monitoring throughout therapy c. Self monitoring throughout therapy

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