ASHP CLINICAL SKILLS COMPETITION
PHARMACIST'S PATIENT DATA BASE FORM

Demographic and Administrative Information		
Name: REL		Patient ID: 07021993
Address: 137 Bayou Drive		Room & Bed: Outpatient Internal Med Clinic
Baton Rouge, La		Physician: LeBlanc, T
Date of Birth: 02/17/1984		Pharmacy: City Apothecary
Height: 5'1" (154.9 cm) Weight: 121 lb (55kg)		Race: African American
Gender: Female		Religion: Catholic

History of Present Illness

Patient was referred to the internal medicine asthma clinic for a follow-up evaluation of asthma therapy. She was diagnosed with asthma a little over one year ago just prior to starting college. She was admitted to the emergency department for an acute asthma exacerbation (her first) on 7/15 of this year where she was treated with oral prednisone and albuterol. She was released from the emergency room after two hours of therapy with a five-day course of oral prednisone, as needed albuterol and a prescription for inhaled fluticasone. She followed up with her primary care physician on 8/12. At that time, she was given a peak flow monitor and told to monitor her peak expiratory flow rate every morning. She returned to her primary care physician for follow-up on 9/7 with no improvement in peak expiratory flow rate and was referred to the internal medicine asthma clinic for evaluation. In clinic today, (9/16) she has no specific complaints, but does state that she wakes up 2- 3 times a week at night trying to catch her breath. She has been using her albuterol one to two times a day because it makes her feel better.

Vitals & Other Tests

	7/15	**8/12**	**8/16**	**8/20**
Blood Pressure (BP) (mm Hg)	132/92	131/85		
Peak Expiratory Flow Rate (PEFR, L/min) from patients PEFR diary	163	325	321	313
% predicted	42	84	83	81

	8/28	**9/1**	**9/7**	**9/8**
BP (mm Hg)			128/84	
PEFR (L/min)	298	283	275	274
% predicted	77	73	72	71

	9/9	**9/10**	**9/11**	**9/12**
BP (mm Hg)				
PEFR (L/min)	269	268	264	259
% predicted	70	69	68	67

	9/13	**9/14**	**9/15**	**9/16**
BP (mm Hg)				132/86
PEFR (L/min)	255	259	258	259
% predicted	66	67		67
Forced expiratory volume in one second (FEV_1) (L)				1.59
% predicted				63
Forced Vital Capacity (FVC) (L)				2.48
FEV_1/FVC ratio				0.64

Past Medical History

Allergic Rhinitis X 12 years

Gastroesophageal Reflux Disease X 4 years

Hypertension X 2 years

Asthma X 1 year

Chemistry (all fasting)

Test	7/15	9/16
Na (mmol/L)	140	141
K (mmol/L)	3.6	4.1
CL (mmol/L)	103	101
HCO_3 (mmol/L)	28	24
Glucose (mg/dL)	82	89
BUN (mg/dL)	16	12
SCr (mg/dL)	0.7	0.8
Ca (mg/dL)	8.9	
Magnesium (mg/L)	1.5	
Phos (mg/dL)	3.8	
AST (IU/L)	21	
ALT(IU/L)	24	

Family History

Father: Age 49 (Living), Hypertension, Dyslipidemia, Allergic Rhinitis, Obesity
Mother: Age 48 (Living), Depression
Sister: Age 18, (Living), Allergic Rhinitis

Social History

Tobacco: Denies
ETOH: Denies
Illicit Drugs: Denies
Caffeine: 2-4 diet cokes per day,
Occupation: College student
Status: Single
Children: none
Physical Activity: Somewhat limited due to shortness of breath with exercise
Diet: No limits, eats what she wants. .
Living arrangements: Lives alone in a two bedroom wood frame house on a concrete slab. The patient does not have any pets.

X-ray

7/15/2008: Clear in all fields, some flattening of the diaphragm.

Physical Exam (9-16-08)

ROS: Female patient who looks her age and is in no apparent distress. She appears tired and has allergic shiners.
Vitals: Blood Pressure 138/88 mm Hg; Heart Rate 94 beats per minute , Temp.: 98.6°F, Respiratory Rate: 19 breaths per minute
Skin: Normal
HEENT: Pupils equally round, 4.5mm, reactive to light and accommodation. Tympanic membranes are intact. Nasal mucous membranes are pale and swollen with no epistaxis. No nasal polyps. There is no tenderness over the frontal and maxillary sinuses, and the throat is normal.
Neck: Normal, no lymphadenopathy or thyromegaly.
Chest: slight bilateral wheezes scattered over all lung fields, no rales or rhonchi.
Breast: Deferred
Heart: Regular rate and rhythm, no gallops, murmur or rub
Abdomen: Soft, non-tender, bowel sounds (+)
Genitourinary/Rectal: Deferred
Extremities: No clubbing, cyanosis or edema, pulses 2 plus throughout
Neurologic: Alert and oriented to person, place and time. Cranial nerves II-XII intact, deep tendon reflexes 2 plus throughout

ASHP CLINICAL SKILLS COMPETITION
PHARMACIST'S PATIENT DATA BASE FORM (Cont.)

Allergies/Intolerance's	**Prescription Coverage**
No known drug allergies	Insurance: Employee Group Benefits
Dust mite antigen	Copay: 50% of cost up to $50/prescription/$1000/year
	Cost per month: ~$135.00

Current Drug Therapy			
Drug Name/Dose/Strength/Route	Prescribed Schedule	Duration Start–Stop Dates	Compliance/Dosing Issue
1. Cetirizine 10mg (OTC)	1 tablet by mouth daily	3/24/06-present	Only takes when her nose gets runny
2. Famotidine 20mg	1 tablet by mouth daily	7/23/05-present	Patient rarely misses a dose
3. Flovent HFA™ 44 mcg	1 puff twice a day	7/15/08-present	Has taken regularly since emergency department visit
4. Proventil HFA™ MDI	2 puffs every 4 to 6 hours as needed for shortness of breath	7/30/07-present	Has always used at least once daily. Has been using 1-2 times a day since her emergency department visit. Last refills 9/10/08, 7/15/08
5. Lisinopril 20mg	1 tablet by mouth daily	6/24/04 - present	Patient rarely misses a dose.
6. YAZ™	1 tablet by mouth daily	3/14/2007	Never misses a dose
Medication History			

1. Singulair 10mg, 1 tablet by mouth daily. 7/30/07 – 7/15/08, stopped at ED visit and Flovent started
2. Allegra D, 1 tablet by mouth daily, 2/28/02-3/24/06, changed to cetirizine due to concerns over blood pressure

Evaluated for competition

ASHP Clinical Skills Competition - Pharmacist's Care Plan

Problem Identification and Prioritization with Pharmacist's Care Plan

Team # _____

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	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
Asthma	**1**	Reduce impairment 1. Prevent chronic and troublesome symptoms (coughing, breathlessness in the daytime, in the night or after exertion 2. Require infrequent use (≤ 2 days a week) of short acting bronchodilators for quick relief of symptoms 3. Maintain (near) normal pulmonary function 4. Maintain normal activity levels (including exercise and other physical activity and attendance at work or school 5. Meet the patient's expectation of and satisfaction with asthma care Reduce Risk 1. Prevent recurrent exacerbations of asthma and minimize the need for emergency	1. Verify the patient's inhaler technique 2. Explain the goals of therapy to the patient and ask if she has any personal therapeutic goals **AND** 3. Increase inhaled corticosteroid to medium dose • Beclomethasone HFA 120mcg-240mcg BID; • Budesonide DPI 300mcg-600mcg BID; • Flunisolide HFA 160mcg-320mcg BID; • Fluticasone HFA MDI 132mcg-264mcg BID; • Mometasone DPI 200mcg BID, or • Triamcinolone Acetonide 325mcg-750mcg BID **OR** 4. Add a long-acting beta$_2$-adrenergic agonist • Salmeterol 50mcg BID, or • Formoterol 12mg BID **Bonus:** Increasing the inhaled corticosteroid dose from low dose to a medium dose is preferred in this patient because she is African-American and data from the SMART trial indicated an increase in the combined endpoint of respiratory related deaths or respiratory related life-threatening experiences as well as asthma related deaths or life-threatening experiences in this population.)	1. Re-evaluate therapy in 2-6 weeks. Once control is gained for at least 3 months, the patient should have signs and symptoms evaluated every 6 months. (wheezing, shortness of breath, chest tightening, cough and nocturnal awakening due to asthma symptoms) daytime symptoms should occur ≤ 2 times per week, nighttime awakenings ≤1 time per month. 2. Monitor signs and symptoms of asthma over the last two to four weeks at every office visit. Alternatively, the patient may keep a symptom diary that is evaluated at each office visit. (See endpoints above) PEF should remain in the green zone (>80 personal best) with <20% variability. 3. At every office or pharmacy visit, • Monitor use of short-acting albuterol. SABA should be used ≤2 days

Health Care Problem	Priority	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
		department visits and hospitalizations 2. Prevent progressive loss of lung function 3. Provide optimal pharmacotherapy with minimal or no adverse effects.	**AND** 5. Continue her short-acting beta$_2$-adrenergic agonist for break through symptoms • Albuterol HFA 2 puffs q4-6 hours as needed • Pirbuterol HFA 2 puffs q4-6 hours as needed • Levalbuterol HFA 2 puffs q4-6 hours as needed **AND** 6. Avoidance of dust-mite antigens • Encase the mattress in an allergen-impermeable cover • Encase the pillow in an allergen impermeable cover or wash it weekly • Wash the sheets and blankets on the patient's bed weekly in hot water (>130°F) • Also consider the following actions: o Reduce indoor humidity o Remove carpets from the bedroom o Avoid sleeping or lying on upholstered furniture o Remove carpet laid on concrete from the home o Minimize the number of stuffed toys and wash them weekly. **AND** 7. Educate the patient on general allergen avoidance procedures (NAEP III Report Executive Summary, pages 26-27) • A multifaceted comprehensive approach should be taken • Recommendations are to: o Avoid tobacco smoke exposure o Avoid contact with animals that trigger asthma symptoms (keep animals out of the home or at least the bedroom, etc.) o Minimize exposure to cockroach antigen by taking measures to decrease cockroach populations. o Minimize growth of indoor mold o Avoid outdoor pollen and mold (keep windows closed, avoid times of high pollen counts) o Avoid smoke, strong odors and sprays **AND** 8. Provide the patient with an asthma action plan for treatment of worsening asthma at home.	per week. • Monitor the patient for adherence to controller medication • Monitor the patient for adverse effects from medications, particularly candidiasis and dysphonia. 4. Monitor frequency and severity of asthma exacerbations. Patients should be exacerbation free or have no more than 1 exacerbation per year. 5. Monitor pulmonary function • Spirometry every 1-2 years 6. Peak expiratory flow daily upon wakening. PEF should remain in the green zone (>80 personal best) with <20% variability. **7.** Monitor patient quality of life • Any work or school missed due to asthma • Any reduction in usual activities due to asthma (home/work or recreation/exercise) • Any disturbance in sleep due to asthma • Asthma specific quality of life instruments may be used (Mini Asthma Quality of Life Questionnaire, Asthma Quality of Life Questionnaire, ITG Asthma Short Form)

Health Care Problem	Priority	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
			AND 9. Continue peak flow monitoring **AND** 10. Educate the patient concerning • The difference between controller and rescue medication and how they are used • Appropriate metered dose inhaler technique for the dosage form chosen • Symptom recognition including how to use her peak flow meter and Signs and symptoms of worsening asthma • Asthma self-management techniques **AND** 11. Immunization • Annual influenza vaccine **Bonus:** The patient does not have a personal best with her peak flow meter. Once therapy has been optimized, the patient should be told how to identify and use her peak flow personal best.	**8.** Monitor patient satisfaction with asthma control and quality of life
Allergic Rhinitis	**2**	1. Relieve current symptoms of allergic rhinitis 2. Prevent the future occurrence of symptoms and comorbidities associated with allergic rhinitis. 3. Provide optimal pharmacotherapy with minimal or no adverse effects 4. Improve patient quality of life 5. Meet the patient's expectations of and satisfaction with allergic rhinitis care	1. Dust mite antigen avoidance therapy Essential measures for controlling house dust mite allergen exposure include: • Encase the mattress in an allergen-impermeable cover • Encase the pillow in an allergen impermeable cover or wash it weekly • Wash the sheets and blankets on the patient's bed weekly in hot water (>130°F) • Also consider the following actions: o Reduce indoor humidity o Remove carpets from the bedroom o Avoid sleeping or lying on upholstered furniture o Remove carpet laid on concrete from the home o Minimize the number of stuffed toys and wash them weekly. **AND** 2. Educate the patient on general allergen avoidance procedures (NAEP III Report Executive Summary, pages 26-27) • A multifaceted comprehensive approach should be taken	1. The patient should return to the clinic in 2 to 4 weeks for reassessment of symptoms (sneezing, rhinorrhea, congestion, watery eyes). 2. Monitor for adverse effects of pharmacotherapy, in particular epistaxis or ulceration of the nasal mucosa

Health Care Problem	Priority	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
			• Recommendations are to: • Avoid tobacco smoke exposure • Avoid contact with animals that trigger asthma symptoms (keep animals out of the home or at least the bedroom, etc.) • Minimize exposure to cockroach antigen by taking measures to decrease cockroach populations. • Minimize growth of indoor mold • Avoid outdoor pollen and mold (keep windows closed, avoid times of high pollen counts) • Avoid smoke, strong odors and sprays **AND** 3. Add an intranasal corticosteroid • Fluticasone Furoate 27.5mcg/actuation 2 sprays in each nostril once daily • Fluticasone Propionate 50 mcg/actuation 2 sprays in each nostril once daily; • Mometasone 50 mcg/actuation 2 sprays in each nostril once daily; • Budesonide 32 mcg/actuation 2 to 4 sprays in each nostril once daily; • Beclomethasone 42 mcg/actuation 1 to 2 sprays in each nostril once daily; • Flunisolide 29 mcg/actuation 2 sprays in each nostril 2 to 3 times a day • Flunisolide 25 mcg/actuation 2 sprays in each nostril 2 to 3 times a day; • Triamcinolone acetonide HFA 2-4 sprays in each nostril once daily, or • Ciclesonide 50 mcg/actuation 2 sprays in each nostril once daily **AND** 4. Consider continuing cetirizine as needed for breakthrough symptoms	

Health Care Problem	Priority	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
Hypertension	**3**	1. Blood pressure < 140/90 2. Decrease cardiovascular and renal morbidity and mortality	Lifestyle Modification 1. Institute diet and exercise modification per JNC 7 guidelines Engage in regular aerobic physical activity such as brisk walking (at least 30 minutes a day most days of the week. There is an expected reduction in systolic blood pressure of 5-20 mm Hg for every 10kg weight loss. Consume a diet rich in fruits, vegetables and low-fat dairy products with reduced content of saturated and total fat (DASH Diet) Limit sodium intake to <2.4 gm/day or <6 gm of sodium chloride/day **AND** 2. No medication changes needed at this time **AND** 3. Counsel the patient to avoid pregnancy while on lisinopril	1. Blood Pressure every 3 to 6 months. 2. Serum creatinine 1 to 2 times per year 3. Serum potassium 1 to two times per year
GERD	**3**	1. Alleviate symptoms 2. Decrease the frequency of recurrent disease 3. Promote healing of mucosal injury 4. Prevent complications	The patient is not complaining of any problems with her reflux; potential actions include: 1. Lifestyle modification • Weight loss • Elevating the head of the bed • Eating smaller meals • Avoiding meals 3 hours before sleeping • Avoiding foods or medications that exacerbate GERD **AND** 2. If symptoms escalate, consider changing the patient's H_2-recptor antagonist to a proton pump inhibitor **BONUS:** If the patient's asthma does not respond to increases in therapy, a trial of more aggressive therapy for GERD may be warranted as GERD is considered a factor that worsens asthma.	1. Monitor for symptom relief and the presence of complicating symptoms such as difficulty swallowing, painful swallowing and weight loss.

Health Care Problem	Priority	Therapeutic Goals	Recommendations for Therapy	Monitoring Parameters and Endpoints
Health Maintenance	**3**	1. Early detection of health problems and/or 2. Prevention of future health problems	1. General Health Maintenance Exam (Physical) every 2- 3 years 2. Women's Health • Pap Smear/Human papiloma virus (HPV) testing at age 21 or every 1-3 years after her first sexual contact (whichever comes first) • Chlamydia and gonorrhea screening annually until age 25 if sexually active • Diptheria-Tetanus, Pertussis (Td/Tdap) every 10 years • HPV vaccine • Self-breast exam monthly 3. Fasting lipoprotein profile at age 20 and every five years thereafter 4. Influenza vaccine yearly 5. Injury prevention • Wear a seat-belt when riding in a care • Have a plan of escape in case of a fire • Install smoke detector in home and change batteries regularly • Wear a helmet when on a bicycle, motorized bike, ATV, or snowmobile 6. Patient Education • Safe sex practices/STD prevention • Nutrition and exercise plan • Firearm safety • Avoid drug and excess alcohol use • Do not smoke	1. Adherence to exam schedules.