



Undergraduate Medical Education

History and Physical Format

For the Adult Patient

There are several basic pieces of information that can be joined to establish the diagnosis by the clinician. These are:

- A) History of Present Illness (HPI), which must be accurate, skillfully elicited, carefully interpreted, and coherently expressed.
- B) Physical Examination, which should build on the existing information and provide clues for obtaining additional history.
- C) Ancillary data, such as routine and special studies, consultations, *etc.*
- D) Observations of the course of the illness, which is usually less expensive and more rewarding than extensive excursions in the use of ancillary studies, *e.g.* “shot-gunning” with laboratory studies.

Our basic thesis is that the vast majority of clinical problems should, and can be resolved, by the effective use of the HPI and Physical Examination (H&P). In most cases the HPI should be, and is, the most productive. You will find this conclusively and objectively demonstrated when dealing with patients whom no history can be obtained. To put it another way, the diagnosis should be clear based on the HPI and related points of the Review of Systems (ROS) most of the time. In fact, if the diagnosis is not apparent at the end of the H&P, there is little likelihood that such will emerge by the use of ancillary data/or special studies.

Laboratory studies should be viewed and used primarily to *confirm* a diagnosis rather than make one. Furthermore, experience has taught us that thoughtful observation of the patient and his/her illness can be the most effective tool of complex, particularly chronic, problems.

COVER PAGE – Please include the following information:

Your Name (as appears on your school record)

Your Medical School

Current Rotation (Start Date – End Date)

H&P Case Write-Up #___ for Week #___

Supervising Physician/Resident (the physician who is in charge of the unit or saw the patient with you)

Attending Physician (your assigned Attending this rotation).

I. **(0.1)IDENTIFICATION** – Recorded in categorical format, or in a one sentence.

Example 1: Date of Examination (when you first interviewed the patient)
Patient Initials
Age
Gender
Ethnicity
Referring Provider (family member, EMS, police, nursing facility, *etc.*)

Example 2: *This is the first/second/third admission for <initials>, a <age> year-old, <ethnicity> <gender> who was brought to the hospital by <family member/relative/EMS/police/self>.*

II. **(0.1)INFORMANTS** – These can be family members, friends, nurses, physicians, EMS, *etc.* This information allows one to estimate the reliability of the source. Also, include the relationship of the source to the patient and how well the source knows the patient. Because of HIPAA, one should also note here that permission was obtained to talk with informants. If your only source is the patient, simply note “Patient.”

III. **(0.3)CHIEF COMPLAINT** – The chief complaint briefly characterizes the most important complaint in the patient’s own words including its duration in hours, days, months, or years. It should always be a quotation of the patient’s own complaint, not the relative’s or doctor’s paraphrase. At the physician’s discretion, in addition to the patient’s chief complaint, a chief complaint of an informant other than the patient may be added. The source must be clear.

The Chief Complaint is the “marquee” outside of the theater and should capture the essence of why the patient presented to the hospital or the physician for care. It sets up the remainder of the H&P and poses the questions that the remainder of the record will attempt to answer. It is a short and focused—“one-liner” or a single sentence.

The Chief Complaint is typically one symptom although rarely, a “symptom complex” is used in the case for example of endocarditis or a connective tissue disease. The Chief Complaint is not a diagnosis, laboratory value, or anticipated treatment. It must be accurately defined in terms of its nature and duration. The patient’s own words are important; however, the physician must be primarily concerned with interpreting, translating, and formulating the *proper* Chief Complaint.

One must always be aware of the problem of semantics. For example, does “*pooped out*” mean muscular weakness, shortness of breath, or simply a lack of desire for physical activity?

Example 1: *This is the first KJMC admission for this 45-year-old, Caucasian male who presents with a three-day history of a non-productive cough.*

Example 2: *This 75-year-old, Asian male was in his usual state of health until five hours prior to admission when he developed the acute onset of substernal chest discomfort.*

Strategically- and appropriately-placed adjectives may further enhance the Chief Complaint.

Example 3: *This 25-year-old, Hispanic male presented with the chief complaint of shortness of breath over two weeks prior to admission.*

This Chief Complaint seems less directive and more vague than one that reads: “*This 25-year-old, Hispanic male homosexual was admitted with a two-week history of shortness of breath.*” Clearly, one would think about *Pneumocystis jiroveci* pneumonia in this latter Chief Complaint.

Similarly, “*a 55-year-old, Jewish male with a long history of cardiac disease who presents with a chief complaint of chest pain*” is more directive than simply “*a 55-year-old, Jewish male who presents with four hours of chest pain as a Chief Complaint.*”

The physician may interpret the patient’s Chief Complaint. In other words, the complaint that may initially have brought the patient to the hospital may wind up not to be the major problem that is written about. For example, a patient who has a complaint of sinus difficulties as a reason for coming in, but who on chest X-ray is found to have lung cancer may end up with a Chief Complaint of increasing shortness of breath occurring over the past one month.

IV. (0.6) **HISTORY OF PRESENT ILLNESS** (HPI) – The process of history taking serves several purposes. Some of these are:

- A) It begins to establish a level of communication and a relationship with the patient that will provide important insights into the functional and feeling status of the patients; this enhances one’s understanding of the patient as a person.
- B) It must become the single most valuable source of diagnostic information.
- C) It does provide some focus for the physical examination to be more intensive in certain areas.
- D) It guides one’s selection of future studies of an ancillary nature.
- E) It can elicit important information and provide direction for prevention/intervention of illness in the future.

The HPI therefore gives the relevant history of the major problem that will be dealt with during the admission. It is chronological starting from the onset of symptoms and ends when the patient is admitted to the hospital, *i.e.* what was it that finally brought the patient to the hospital.

The HPI traces the development, over time, of all relevant symptoms and any stimulating or relieving factors that affect them, and any remedies that were tried, as well as their effects. It must include either during the text or at the end a listing of pertinent negative and positive symptoms. It should not however include laboratory or treatment rendered in an Emergency Room. It should be specific to, and further, describes the Chief Complaint. Certainly, problems and symptoms should be *lumped* together and included if available data suggest that they share a common etiology. However, do not include irrelevant symptoms in the HPI.

Rhetoric is important when writing up a H&P and proper spoken English should be rigorously practiced.

As relates to chronology in the HPI, this should not be written in terms of dates, but rather sentences should be front-ended by the time of onset of a symptom in terms of days, months, hours, or years. For example, “*five hours prior to admission the patient developed the acute onset of right-sided chest pain.*” It is preferable to have the time duration at the beginning of a sentence rather than towards the end.

There are several factors influencing the efficacy and efficiency with which a physician obtains a history. These may include:

- A) The presence or lack of an organized approach to collecting data, which obviously depends on the proper use of a differential diagnosis during history taking.
- B) The patient’s attitudes towards physicians, the illness, the specific physician involved, and other health personnel.
- C) The physician’s attitude towards the patient, the type (age, sex, social status) of patient he/she is, the illness involved, *etc.*
- D) The level of interest, warmth and/or empathy that the physician displays towards the patient. Patients are quite perceptive and unusually sensitive to deviations from a genuinely open and honest approach.
- E) The level of mutual respect: the physician should display a polite, sincere and friendly concern in an intellectual and objective manner.

Above all, it must be stated that patients are never poor historians—only physicians are! Overall, the timing, sequence, chronology, and proper language are the essential ingredients to a cogent HPI. In short, the HPI must add up to something that is identifiable as an illness. One must ask “*does it add up to something that can be identified?*” The following must be kept in mind: most diseases have a relatively constant and predictable natural history. Their expressions through patients in the form of illness become the present illness.

This expression of a disease will however vary from patient to patient, which presents a challenge to the clinician in that it requires the ability to help the patient translate subjective complaints like diarrhea into objectively describable parameters. Pain must be fully described in terms of onset, duration, frequency, relieving and exacerbating factors, *etc.* Symptoms such as shortness of breath should be described in terms of change in exercise tolerance, diarrhea in terms of volume and frequency of stools, and phlegm in terms of amount and color, are all-important. Subjective historical expressions such as weakness, pain, strange sensations, flu, *etc.* are generally imprecise. This presents a challenge to the clinician in that he/she has to help the patient translate the subjective complaints into objectively describable parameters. Weakness as a symptom, for example, can have many different meanings and can reflect respiratory failure, muscular weakness, or lack of desire. This must be fathomed out in the HPI.

V. **(0.3) PAST MEDICAL HISTORY (PMH)** – The PMH may be subdivided into Pertinent PMH and PMH. The Pertinent PMH tends to occur directly after the HPI if it directly pertains to it. This may include past cardiac events in a patient with a complaint of chest pain. Otherwise, the PMH lists all other important past medical events. It should be written in a list form, not as a narrative. It gives a quick overview of significant health events and care. It should include the year of diagnosis of a medical problem or the year a surgical procedure was performed.

VI. **(0.1) ALLERGY / IMMUNIZATIONS** – Specifically list allergies to medications. Also, list the type of reaction (rash, respiratory complications, anaphylaxis, *etc.*), if known. Remember that an individual may have an intolerance (*e.g.* GI upset with Erythromycin and cough with ACE-I’s), that he/she may misperceive as an “allergy.” An intolerance may also be listed, but please label it as such.

Comments should be made regarding age appropriate immunizations.

VII. **(0.4) MEDICATIONS** – This should list dosage and schedule and should include over the counter medications. Simply stating “takes a water pill” is unacceptable. All of the following components must be noted:

Med (trade name & generic)	Dose	Route	Frequency	Start Date	End Date	Indications
<i>Dilantin</i> [®] (Phenytoin)	100 mg	PO	q24h	11/04/01	05/04/01	Seizure disorder
<i>Demerol</i> [®] (Meperidine)	50 mg	PO	<i>Bid</i>	09/17/03	10/02/03	Pain
<i>Plavix</i> [®] (Clopidogrel)	75 mg	PO	<i>Daily</i>	02/14/99	Present	High lipids
<i>Librium</i> [®] (Chlordiazepoxide)	10 mg	PO	One dose	12/27/08	12/27/08	Alcohol withdraw
<i>Wellbutrin</i> [®] (Bupropion)	150 mg	PO	<i>Biw</i>	06/12/05	07/02/05	Anxiety/depression

If the medications were given during or after admission and the dosages are not known to the patient, inquire the nurse, resident physician, Attending physician, or contact the pharmacy to get the dosage. For home medications, note “cannot recall” if the patient cannot remember or does not know.

VIII. **(0.2)SOCIAL HISTORY** – A personal and social history should then be presented. In instances in which there are obvious interactions between the patient’s family and social situation and the acute illness (e.g., psychiatric problems), this information would have been presented as part of the HPI. The main goal of this section is to understand the patient as a person. Identification of potential problems and coping mechanisms for dealing with illness should be discussed and should include the following areas of emphasis: **Birthplace, Residence, Education, Occupation, Marital status, Alcohol use, Tobacco use** (smoking & chewing tobacco), **Illicit drugs** (note duration, frequency and last use), and **Health insurance and Financial situation**.

Example: The patient was born in Tanzania and graduated from college in his home country. He moved here 8 years ago with his wife and three children. They live in a third-floor apartment in Brooklyn. He is employed as a general manager of a local super market where he has worked for seven years. Prior to this, he managed a coalmine in his home country for 22 years. He denies the use of tobacco, alcohol and illicit drugs. He denies any current marital, family or economic stresses and has BC/BG insurance.

IX. **(0.2)SEXUAL HISTORY** – Inquire if the patient is currently sexually active. If so, with men only, women only, or both? If not, when was he/she last sexually active? Also, if pertinent, inquire if the patient has any concerns for STD’s, HIV or AIDS. The goal of this section is to illicit information pertaining to any possible history of sexual transmitted diseases.

X. **(0.2)FAMILY HISTORY** – A screening for inheritable diseases: Abuse, Alcoholism, Birth defects, Cancer, Depression, Diabetes mellitus, Epilepsy, Gout, Heart Disease, Hyperlipidemia, Hypertension, Renal Disease, Stroke, *etc.* If a family member died of an illness (*e.g.* MI), the age of death should be inquired.

XI. **(0.4)REVIEW OF SYSTEMS (ROS)** – If a specific organ system was already investigated in the HPI, you may simply write, “As noted in the HPI-see above.” Otherwise, you must list everything. Simply writing “ROS is non-contributory/unremarkable” is unacceptable at your present level of training. Remember that actual disease entities (*e.g.* glaucoma) belong in the PMH section. The ROS is reserved for symptoms.

- 1) **GENERAL** – Weight changes (amount and time period), weakness, fatigue, fever, fever, chills, rigors, night sweats.
- 2) **SKIN, HAIR, NAILS** – Color change, eruptions, rash, pruritus, scaling, bruising, bleeding, lumps, sores, changes in hair color, texture of distribution, hair loss, changes in nail color, pitting, ridging, brittleness or abnormal curvature of the nails.
- 3) **HEAD AND NEUROPSYCHIATRIC** – Headache, head injury, syncope, vertigo, focal weakness or paralysis, paresthesias, anaesthesias, convulsions, tremors, involuntary movements, disturbances of smell or taste, imbalance, difficulty in chewing or swallowing, difficulties in speech, loss of memory, atrophy, difficulty in walking, unexplained pain, incontinence of stool or urine, moodiness, insomnia, impotence, hallucinations, delusions, nervous breakdown, anhedonia.
- 4) **EYES** – Loss of vision, blurred/tunnel vision, color blindness, diplopia, hemianopsia, trauma, glasses, redness, pain.
- 5) **EARS** – Hearing loss, tinnitus, vertigo, discharge, pain, hearing aid use, operations.
- 6) **NOSE** – Coryza, rhinitis, obstruction, epistaxis, trauma, discharge.
- 7) **THROAT, MOUTH AND TEETH** – Hoarseness or change in voice, sore throats, bleeding gums, caries, extractions/dentures, dry mouth, and sore tongue.
- 8) **NECK NODES, ENDOCRINE** – Lumps, swollen nodes, goiter, neck pain or stiffness, problems with growth, abnormal growth of head, hands, or feet; changes in hair distribution or shin color; intolerance of heat or cold, polydipsia, polyphagia, polyuria, excessive thirst or sweating
- 9) **BREASTS (FEMALE)** – Lumps, pain, nipple discharge, last mammogram, lactation, trauma, lumps, self-examination, nipple discharge or retraction.
- 10) **RESPIRATORY** – Chest pain, shortness of breath, cough, wheezing, dyspnea of exertion, cough, sputum color and quantity, hemoptysis, tuberculosis exposure, night sweats, TB test, last chest X-ray.
- 11) **CARDIOVASCULAR** – Palpitations, tachycardia, chest pain, orthopnea, paroxysmal nocturnal dyspnea, cyanosis, ascites, edema, claudication, cold extremities, murmur, last ECG.
- 12) **GASTROINTESTINAL** – Change in appetite, dysphagia, dyspepsia, regurgitation, weight loss, nausea, belching, vomiting, hematemesis, food intolerance, flatulence, abdominal pain, jaundice, diarrhea, melena, hematochezia, change in stool color, consistency or caliber, hemorrhoids, constipation.

- 13) **URINARY** – Change in color of urine, hematuria, dysuria, flank pain, nocturia, pyuria, frequency, urgency, hesitancy, retention, incontinence, decreased stream force.
- 14) **GENITAL (MALE)** – Hernias, penile lesion or discharge, testicular pain or mass, self-exam, impotence.
- 15) **GENITAL (FEMALE)** – Menstrual history including menarche, cycle length and regularity, duration and quantity of menses, LMP, PMP, dysmenorrhea, metrorrhagia and menopause; contact bleeding, post-menopausal bleeding, abnormal bleeding, vaginal discharge, leukorrhea, itching, sores, lesions; Ob-Gyn history, including number of pregnancies, live births, still births, voluntary and spontaneous abortions, complications of pregnancy and delivery; contraception, sexual preference, sexual dysfunction, dyspareunia.

(FEMALE) Obstetrical and Menstrual: Menarche: _____ Menopause or LMP: _____. Menstrual cycle: _____ days. Duration of period: ____ days. # of pregnancies: _____. # of miscarriages/abortions: _____. # of living children: _____. Eldest child is _____ y/o. Youngest is _____ y/o.
 OB/GYN History: _____

- 16) **MUSCULOSKELETAL** – Myalgias, arthralgias, arthritis; stiffness, redness, warmth, swelling; muscle weakness or atrophy; back pain, night cramps, incoordination.
- 17) **NEUROLOGIC** – Smell, chewing, facial weakness, balance, speech & swallowing, taste, pain, paresthesias, anesthesia, temperature sensitivity.

XII. (0.2) **MINI MENTAL STATUS EXAM** (MMSE, *a.k.a.* Folstein Exam) – Must be done for all patients ≥65 years old. The patient’s responses and a Folstein score must be recorded here.

MINI MENTAL STATUS (FOLSTEIN) EXAM (Patients ≥65 years of age)

Questions & Tasks for the Patient	Comments / Patient Response	Points Earned
(Orientation) ⇒ What is the date, day, month, year, season? (5 points)		___ / 5
(Orientation) ⇒ Do you know where you are: country, state, city, hospital, floor? (5 points)		___ / 5
(Immediate Memory) ⇒ Patient repeats 3 named objects. (3 points)		___ / 3
(Concentration) ⇒ Serial 7 (from 100), Serial 3 (from 20), or spell “ WORLD ” backwards. (5 points)		___ / 5
(Recall) ⇒ Name the same 3 objects mentioned previously. Order not important. (3 points)		___ / 3
(Language) ⇒ Patient able to name 2 items shown. (2 points)		___ / 2
(Language) ⇒ Repeat the following: “ <i>No ifs, ands, or buts.</i> ” (1 point)		___ / 1
(Language) ⇒ Follow a 3-stage command: Take a paper in your hand, fold it in half, and put it down on the bed. (3 points)		___ / 3
(Language) ⇒ Read and perform this task: CLOSE YOUR EYES. (1 point)		___ / 1
(Language) ⇒ Write a sentence (must contain a subject and a verb). (1 point)		___ / 1
(Language) ⇒ Copy a drawing of 2 pentagons intersecting at 2 points. (1 point)		___ / 1
TOTAL POSSIBLE POINTS: 30	PATIENT POINT TOTAL	/ 30

24-30: Normal 20-23: Mild dementia 10-19: Moderate dementia < 10: Severe dementia

MINI COGNITIVE EXAM: This is used in cases where there is not enough time in the patient encounter to perform the complete MMSE, for example a patient in the clinic versus one who is admitted. The Mini Cognitive Exam however, cannot be used in place of the MMSE. If the MMSE can be done, then it must be administered.

- 10) **NODES** – At a minimum must include mention of cervical and axillary nodes. Other areas must be checked when relevant.
- 11) **CHEST** – Must include mention of inspection (symmetric expansion) and auscultation (adventitious sounds), use of accessory muscles of respiration, along with retractions and flaring.
- 12) **HEART** – Rate, rhythm, rubs, gallops, murmurs, JVD, bruits, thrills, carotid pulses, peripheral pulses, capillary refill.
- 13) **BREASTS (FEMALE)** – Must be offered to the patient as part of a complete examination of a female. Make a note if the patient refused. Exam findings should include mention of masses, skin or nipple changes.
- 14) **ABDOMEN** – Soft, non-tender, no distention, without masses, tympany to percussion in all 4 quadrants, bowel sounds (hyper/hypoactive, absent), no hepatosplenomegaly (note liver span in centimeters), abdominal bruits.
- 15) **GENITALIA (MALE)** – Must be offered to the patient. Make a note if the patient refused. Otherwise, genital examination must be done as part of a complete examination of a male patient. Should include mention of hernias, scrotal masses, penile lesions or discharge.
- 16) **PELVIC (FEMALE)** – Must be offered to the patient. Make a note if the patient refused. Students may observe and record findings noted by nurse or physician. Otherwise, students are not permitted to perform the pelvic exam. Note “Deferred” for this section, especially if the Chief Complaint is not related to the pelvis.
- 17) **RECTAL** – Must be offered to the patient as part of a complete physical exam. Make a note if the patient refused. It should include a guaiac test. (Note: The only time where a rectal exam is never done is when you do not have a finger, or the patient does not have an anus.)
- 18) **EXTREMITIES** – Symmetry, atrophy/hypertrophy, warm, moist/dry, lymphadenopathy, clubbing, deformities, edema.
- 19) **MUSCULOSKELETAL** – Gait normal, able to tandem walk; joints and muscles symmetric, no swelling, masses, deformity or tenderness to palpation; no heat or swelling of joints; full range of motion.
- 20) **NEUROLOGIC**
 - a) **MOTOR** – Power/Strength.

Upper Limbs (Power/Strength)	Biceps	Triceps	Flexors	Extensors
Right	/5	/5	/5	/5
Left	/5	/5	/5	/5

Lower Limbs (Power/Strength)	Hips	Thighs	Dorseflexion	Plantar flexion
Right	/5	/5	/5	/5
Left	/5	/5	/5	/5

- b) **SENSORY** – Pinprick, light touch & vibration intact; proprioception tested (unable to differentiate sharp/dull mid-calf).

	Upper Limbs	Lower Limbs
Light Touch (use cotton ball)		
Sharp Touch (skip)	Exempt. Do not perform.	Exempt. Do not perform.
Vibration Sense		
Position Sense		

- c) **REFLEXES** – For Babinski sign, note only **positive** or **negative**. For all other reflexes, use the following scale:

- 4+ = very brisk/hyperactive (clonus)
 3+ = more brisk than average
 2+ = average/normal
 1+ = low normal/diminished
 0 = no response or equivocal

REFLEXES	Biceps (C5, C6)	Triceps (C6, C7, C8)	Brachioradialis (C5, C6)	Patellar (L2, L3, L4)	Achilles (S1, S2)	Plantar (L4, L5, S1, S2)
Right						
Left						

- d) **CRANIAL NERVES** – Use specific tests. Below is an actual example from a patient.
CN I – Patient is able to smell _____ through both nostrils when tested individually with two items.
CN II – Right eye: 20/_____ with / no glasses. Left eye: 20/_____ with / no glasses. The patient does not have **his / her** prescription glasses readily available.
CN III, IV, VI – Pupils are equally reactive and responsive to light and accommodation. The eyes converge (**Y / N**). All extra-ocular muscles are intact when assessed via the “H” test. Patient is able to close **his / her** eyes.
CN V – Positive clenching and lateral movements of the lower jaw. Sensory component is intact at the ophthalmic, maxillary, and mandibular regions.
CN VII – Patient denies changes in sense of taste and can open **his / her** eyes, raise forehead, frown and also smile.
CN VIII – Receptive to verbal commands, nail clicks, and finger rubs (bilaterally).
CN IX, X – The uvula and posterior pharynx are midline and rise symmetrically when prompted to say “ah.”
CN XI – Patient can face right and left with resistance and also raise the shoulders with resistance.
CN XII – Patient is able to stick **his / her** tongue straight out, move it right, left, and up when prompted.
- e) **CEREBELLAR** – Finger-to-nose, Rapid-alternating hand movements, Heel-to-shin, Romberg Test.
- f) **GAIT** – Normal gait, tandem gait, heels, toes.

XIV. (0.5) INITIAL LAB FINDINGS and RADIOLOGY IMAGINGS – Ancillary studies should not be used in a shotgun fashion or without consideration to costs/benefits ratio. Unfortunately, it is not infrequent that ancillary data is ordered prematurely and/out of context or without rationale. Therefore, keep in mind the hypothesis that you are testing when you write orders. Literally, almost every patient that comes into the hospital should receive some baseline screening tests including urinalysis, CBC, Electrolytes, BUN, creatinine, and glucose. Other laboratories will be performed as appropriate to the case. You are to use only the ancillary data (e.g. lab values, radiology data, and consultations) available on the patient’s day of admission. The units for all values must be noted.

XV. (0.5) CASE SUMMARY – This is a summary of the case, including the Chief Complaint, History, PMH, Meds and pertinent positive and negative ROS and Physical Exam findings.

Example: This patient is a 79-year-old Hispanic male who is admitted to KJMC for the first time for suspected cellulitis. The patient has a 3-day history of fever (100.4 °F) and 6-week history of stage 2 and 3 bed ulcers at the sacrum and bilateral feet. He has a very basic functional status and requires assistance for all activities of daily living (ADLs). He has a past medical history of falls, diarrhea, hematuria, “blood clot in the kidney,” nosocomial pneumonia, BPH, HTN, hyperlipidemia and peripheral vascular disease (PVD). Patient is status-post bypass surgery of the right leg. He is afebrile on presentation. Physical examination reveals stage I HTN, many advanced ulcers and lesions on the sacrum and bilateral feet, a distended abdomen, resting tremors, mild cogwheel rigidity of the upper limbs, stiffness of the lower extremities and an absent right pedal pulse. Lab studies are significant for a Hb of 10.2 g/dL, Hct of 30%, neutophilia, leukocytosis, elevated BUN and creatinine, hematuria, and proteinuria. An ECG done at the time of admission reveals tachycardia (108 bpm), atrial fibrillation, widen-and-inverted QRS complexes with regular R-R intervals. There is a possible bundle branch block. Chest x-ray is normal. Official report by radiologist is pending.

XVI. (0.7) DIFFERENTIAL DIAGNOSES – These refer your diagnoses for the patient based the subjective, objective and laboratory data collected above. These could be complications of illnesses in their past medical history, but NOT any disease/illness in the PMH itself. For example, if the patient has a PMH of asthma, your differential diagnoses for current symptoms/complaints can be “Acute exacerbation of asthma,” “Bronchitis,” “COPD,” or “Pneumonia.”

There must be a minimum of three differential diagnoses. List in order from most probable to least probable, with an explanation of why you believe each differential diagnosis is likely based on the overall case presentation. A detailed management plan must accompany each differential diagnosis to either confirm your differential, or to rule it out. Disease complications should also be mentioned here, as they are related to the patient’s clinical status and/or quality of life.

Example: Transient Ischemic Attack (TIA)

A transient ischemic attack is possible differential diagnosis in a patient with syncope. An acute decrease in blood supply to certain parts of the brain (via vasoconstriction or embolus) will result in a brief neurologic dysfunction that will persist until the blood supply is returned. The symptoms vary with the brain region involved, but it most commonly presents as aphasia and weakness. Loss of consciousness and coma is also possible. Workup includes history and physical

examination, and ancillary investigations, including neuroimaging aimed at identifying the etiology.

- (1) **Admit to:** regular floor and check vital signs q1-4h with neuro checks.
- (2) **IV Fluids:** Heplock with flush q shift.
- (3) **Medications:**
 1. ASA 325 mg PO qd **OR** Clopidogrel 75 mg PO qd **OR** ASA 25 mg + Dipyridamole 200 mg 1 tab PO *bid*.
 2. If recurrent TIA or cardiogenic embolus: Heparin 700-800 U/h IV infusion without a bolus (25,000 U in 500 mL D₅W); adjust q6-12h until PTT 1.2-1.5 x control.
 3. Warfarin 5 mg PO qd for 3d, then 2 mg PO qd. Titrate to INR of 2.0-2.5.
- (4) **Labs:** CBC, glucose, SMA 7&12, fasting lipid profile, VDRL, drug levels, INR/PTT, UA, CRP.
- (5) **Extras:** CXR, ECG, non-contrast CT, CT angiography, MRA/MRI; carotid duplex, echocardiogram, 24-h Holter monitor. Physical therapy and neurology consults.

XVII. **(1.0)ASSESSMENT/PLAN** – This is essentially a list of problem that the patient has, which includes the illnesses in the PMH, as well as any new problems encountered through your evaluation in this visit. Let’s take a patient with a PMH of HTN, DM-II, and CHF for example...

<u>PMH</u>	<u>You noted on H&P...</u>	<u>Assessment for this visit...</u>
HTN	BP ≥140/90 mmHg	Uncontrolled HTN
DM-II	Glucose ≥200 mg/dL, HbA _{1C} ≥8%	Uncontrolled DM-II
CHF	2D-echo shows EF ≥55%	Diastolic heart failure
CHF	2D-echo shows EF <55%	Systolic heart failure

List each problem, along with a discussion of its pathophysiology and complications if not properly controlled or left untreated.

TREATMENT/MANAGEMENT/PLAN – A detailed treatment plan must accompany each assessment. Medical therapy and lab orders should not be vague. It must be written in such a way that if a nurse picks up the order, he/she knows exactly how to follow through with it.

Example: Congestive Heart Failure (CHF)

The patient exhibits bilateral pitting leg edema, which suggests that she could be developing CHF due to her long-term uncontrolled hypertension. CHF is a common end result of untreated hypertension as left ventricular hypertrophy develops.

- (1) **Admit to:** CCU and check vitals q1h. Call physician if Temperature > 38.5°C (101.3°F), Pulse > 120/min, Respirations > 25/min or < 10/min, Blood Pressure >150/100 mmHg or <80/60 mmHg.
- (2) **Nursing:** Daily weights, measure Ins/Outs, heat of bed at 45°, keep legs leveled or slightly elevated.
- (3) **Diet:** Cardiac diet with 1-2gm salt.
- (4) **IV Fluids:** Heplock with flush q shift.
- (5) **Medications to consider:**
Diuretics, ACE-Is, ARBs, β-blockers, Digoxin, Dopamine/Dobutamine, Vasodilators, KCl, Morphine sulfate.
How to write: Furosemide 10-160 mg IV qd-*bid* **OR** 20-80 mg PO qAM-*bid* **OR** 10-40 mg/h IV infusion.
- (6) **Labs:** SMA 7&12, CBC; BNP, cardiac enzymes (Troponin-T, CPK, CPK-MB, Myoglobin) STAT and q6h for 24h. Repeat SMA7 in AM. UA and CRP.
- (7) **Extras:** CXR PA and Lateral; ECG now and repeat if chest pain or palpitations; echocardiogram.

XVIII. **(0.2)TOPIC DISCUSSION** – Choose any topic that pertains to your patient’s medical history and “discuss it” in one or two paragraphs.

****Final Instructions:** Please save your case write-up as a MS Word document. The file name must be in the format: <First Name> <Last Name> <FM/IM> H&P <#>. Send the file to UME@kingsbrook.org as an email attachment.**