

The Medical Write-Up

“This was a moment, this waiting on the threshold, that I would come to know well. One stepped into a limbus of time, a labium of space. This name on a new chart was like the title of a novel you had just bought, the jacket cover still pristine, the book new. Or else it was the title of an apocalyptic short story from an anthology of stories. The first paragraph had just grabbed you and you could not put it down.”

Abraham Verghese

My Own Country (1994)

(Highly recommended reading)

Every patient has an interesting story to tell. The most successful write-ups are those that tell the story rather than report a list of facts. Be specific and descriptive with your language. Avoid using diagnoses in the HPI and physical examination (e.g. “angina” instead of “chest pressure” or “abdominal aortic aneurysm” instead of “pulsatile abdominal mass”). This requires significant discipline but will save you from leaping to erroneous conclusions. Abbreviations are permissible as long as they are not ambiguous and are of standard acceptance. The following is the traditionally and most widely accepted approach to writing the H&P (note the unambiguous abbreviation). Refer to Sapira’s *The Art and Science of Bedside Diagnosis*, chapter 4, for an outstanding explanation, with examples, of writing the case record if you would like further guidance. (Copies available in Dr. Harrell’s office and the Medicine Library)

The Chief Complaint

For the purist, this is **the patient’s own words in quotations**. It is generally singular. (If there is more than one CC, then you need more than one HPI.) Often physicians use a modified version of this by providing the basic patients demographics, the patient’s own words (possibly edited a bit) and the duration. (e.g. 46 yo wm w/ “a stabbing pain in my back” for 2 days) Sometimes patients do not know why they were sent to the hospital or cannot communicate. In this case the CC is the physician’s reason for admission (e.g. “Mr. Jones is referred to STH by his nephrologist for treatment of acute renal transplant rejection.”).

Most physicians would like you to provide a little additional context in the CC. The following is an acceptable format: Mr./Ms. (name of patient) is a (age)- year-old (race, ethnic group, occupation, and/or very pertinent PMH), who is admitted to the hospital for the ___ th time with a chief complaint of “(symptom, not a sign or diagnosis)” of (number followed by a unit of time) duration.

Avoid the very bad habit of listing a patient’s entire PMH before giving the chief complaint (e.g. “Mr. Jones is a 53 year-old retired Marine with a history of COPD, HTN, DM, arthritis, tobacco abuse, GERD, hyperlipidemia, and pneumonia who is admitted with a chief complaint of “worsening leg pain” for the past 4 days.”) This does not allow the reader to “select a program” in which to organize their thoughts.

At some point early in the history, you should comment on the source of the information and its reliability. This can occur in the CC or HPI (some people like to include a line before the HPI labeled “source:”). Do not try to cover up lazy interviewing by labeling the patient “poor historian”. Most patients who are alert and not demented can tell you their history. The label “poor historian” is a red flag for a poor interviewer. If the patient is a poor historian, you should provide a brief explanation of why. (e.g. history limited by patient’s poor attention span)

The History of Present Illness (HPI)

The **HPI should be a chronological history of the chief complaint**. It can be organized in relation to the date of admission (4 days PTA...) or in relation to the first onset of relevant symptoms (In 1996...). Be as specific as possible when describing symptoms, using the patients own words whenever possible and quantifying whenever possible. (‘Mr. J could walk a mile one month ago without getting SOB, but over the past month his DOE has gradually progressed to the point that he cannot walk 50 feet without stopping to catch his breath.’)

Information obtained from a chart review, outside records, or a referring physician should fit into the HPI. Make sure you include any treatments and the effects they had. It is acceptable to refer to diagnoses made by other physicians in your HPI. However, you should reserve your diagnostic impression to the ‘impression’ (or ‘assessment’) portion of the write-up. (Just because a “doctor” gave a diagnosis; don’t assume it is correct. Keep your mind open.)

Pertinent positives and negatives are usually included in a separate paragraph after the description and elaboration of the symptoms. Most pertinent positives can easily fit into a well-organized history and do not need to be listed separately. However, many specialists have particular ‘risk factors’ or ‘pertinent data’ that they like included in this section. Pertinent negatives are factors that, if present, would have suggested a different diagnosis. *A general rule is to use pertinent positives and negatives only when they are relevant to your differential diagnosis.* **Parts of the PMH, FHx, and SHx that are pertinent to the present illness and differential diagnosis should be included in the HPI.**

Finally, you should include some comments about how this current problem is affecting the patient’s life and any specific concerns the patient may have (i.e. a patient with chest pain may have recently had a friend die of a heart attack). These ‘hidden’ fears or agenda items will also need to be addressed and are easily (and often) overlooked if you don’t specifically ask.

The Past Medical History (PMH)

This portion of the write-up addresses past disease and illness rather than symptoms. It is typically documented as a numbered list. It should include major diseases (conditions for which they are followed by a doctor), OB/GYN hx (LMP, pregnancies, childbirth experiences), hospitalizations, and operations. Try to include the dates and location of the

hospitalizations. Some medical conditions should have some further details provided. (For example, for patients with CHF, it is very helpful to know when that had their last ECHO and what it showed.)

Medications and allergies should be included in the PMH, but can have their own headings. All medications (including OTC and supplements) should be listed with the dosage. (As a student, it is an excellent idea for you to note what each medication is for, though you will not do this routinely in practice. It will help you learn the drugs faster.) Allergies should always include a brief description of the reaction. (Nausea is not an allergy; it is an 'intolerance' or an 'adverse reaction' and should be listed as such.)

Preventive Health History

This is very important particularly in the outpatient setting and can be included in the PMH or even as a separate section. (I describe it separately in my practice for practical reasons.) However, dental check-ups and seat belt use are not usually the most pressing issues during an acute hospitalization. Most preventive health issues that are pertinent would be included in the HPI (e.g. In a patient with weight loss, you would definitely want to include their cancer screening history...but in the HPI). Immunizations are probably the one area that should always be addressed, particularly the pneumovax in the elderly and immunocompromised as this is such a large portion of our patients (and pneumonia is still one of the 10 leading causes of death in our country!).

The Family History (FHx)

You should obtain the FHx for a patient's first -degree relatives at the minimum. You should also get in the habit of asking routinely about common conditions that have a genetic component (e.g. CAD, HTN, breast cancer, colon cancer, diabetes, prostate cancer, high cholesterol, depression, alcoholism). Usually this information can be listed. However, if there seems to be a disease that has affected several generations, a family tree may be a more efficient way to present the data.

The Social History (SHx)

In my experience, this is one part of the write-up that distinguishes the above average students from the average. A thoughtful and detailed social history demonstrates a curiosity and humanitarianism that I have found present in "master clinicians". At the bare minimum, you should address the patient's marital status, who is living at home, social supports, education, occupation(s), and of course habits (tobacco, alcohol, drugs, and sexual history). You are strongly encouraged to learn something about your patient's daily activities, hobbies, and interests. (If you do this consistently, I guarantee that this information will give you a key insight into a patient's diagnosis one day and make you look like a star. Not to mention your patients will like you better if they think you care about them and not just their disease.)

The Review of Symptoms/Systems (ROS)

This is organized by organ system but is really a catalogue of symptoms. You do not need to list all the negatives (all *pertinent* negatives would be in the HPI already). All positives should be listed. Potentially serious positive findings should be elaborated upon. For example, if a patient presents with a productive cough but during the ROS mentions that she's had black, tarry stools, you shouldn't merely list "black, tarry stools". You need to elaborate on this (perform a mini-HPI and consider including it in the HPI if it is serious enough). **Do not repeat information you already included in the HPI or PMH here as it is redundant.**

The Physical Examination (PE)

Always begin with a general description of the patient. Try to provide a description that would allow your attending to go from room-to-room and identify who is your patient. You should also include pertinent observations related to the patient's presenting complaint when applicable. For example, if your patient presents with shortness of breath, it is very useful to know right away whether he is 'lying flat with unlabored breathing' or 'sitting forward in the bed breathing rapidly through pursed, blue lips using accessory muscles'.

The vital signs come next. There is no definite order in which you need to present this. However, most attendings are used to seeing it in the order the nurses record it in the charts (T, P, BP, R, O2 sat with FIO2). You should note from which orifice the temperature was taken and from which arm the BP was taken. **Other than temperature, you should confirm all the vital signs yourself.** (They are *vital* and unfortunately usually are obtained by a CNA or PCA) You will be a star if you comment on the regularity of the pulse and the character of the respirations. Orthostatics or other special maneuvers like pulsus paradoxus are included with the vitals.

The remainder of the physical exam follows the pattern of inspection, palpation, percussion, and auscultation as appropriate. There are two common mistakes made by students on this section of the write-up. First, students often do not provide an adequate description of their findings, or worse, write 'normal' 'WNL' ("we never looked"), or 'benign' without even specifying to which specific part of the exam they are referring. (For example, 'HEENT- normal'. Should one assume that this includes a fundoscopic exam?) Occasionally, it is acceptable to describe something as normal if it doesn't beg further description. But, this should not be a prominent feature of your PE reporting.

Second, students can often fall into the trap of performing the same exam on every patient. **The physical exam should be tailored to the individual patient.** If a patient is jaundiced or has known cirrhosis, you should specifically seek out stigmata of chronic liver disease and note their presence or absence. But for a patient with syncope, you don't need to do that; rather, you should perform a very thorough cardiac and neurological examination. (It is very embarrassing to admit a patient with hip pain and forget to exam the hip because it is not part of your 'routine exam'.)

Elderly patients should have a mental status exam performed. Delirium is very common in the hospitalized elderly and knowing their baseline mental status can help you recognize this life-threatening condition early. The MMSE (Mini-Mental Status Exam) or CAM (confusion assessment method) is a popular way to assess this. Other important aspects of the physical exam that are frequently short changed are breast exams, rectal exams, and an appropriate screening neurological exam (see the neurology clerkship handbook for further description of the very basic screening neuron exam).

Laboratory Data

List all the data that are available at the time you are formulating your differential diagnosis and assessment (wait for basic blood work and radiographs that come back quickly). Like the physical exam, describe your findings rather than give a diagnosis. (e.g. Rather than, 'CXR- RLL pneumonia with small pleural effusion', say 'CXR- slightly underpenetrated PA/lat with patchy alveolar opacity in the RLL with blunting of the rt CP angle'). You are expected to make an effort to interpret your patients' ECGs and CXRs.

The Problem List

This causes many students confusion, but it is really rather simple. It is a [ranked list \(most to least important\) of all a patient's active health problems. It should be complete, prioritized, and specific without being overly redundant.](#) A problem list allows you to recognize patterns and helps make diagnoses that are less obvious or helps you focus your differential diagnosis in a complicated patient. For example, a young woman may come in with a complaint of chest pain. She may describe dark urine on a ROS and you note an oral ulcer and a pericardial rub on exam. Her labs reveal a mild hematuria, anemia, and thrombocytopenia. It would be easy to diagnosis her with 'pericarditis' and miss the fact that she probably has lupus, if you don't step back and look at all her active medical issues.

Furthermore, a problem list reminds you of important medical issues that may be distinct from the chief complaint but still need to be addressed. For example, a man with COPD may present with a cough and shortness of breath. In addition his admission labs show a mild microcytic anemia and an elevated glucose. It would be easy to treat him for pneumonia, watch him improve, and send him home without addressing the fact that he probably has diabetes and may be having blood loss from a potentially serious condition, like colon cancer.

[The key to a successful problem list is to learn the skill of being complete and specific without being redundant.](#) For example, a diabetic patient may present with chest pain; have bibasilar crackles, JVD, and an S3 on exam; have anterior ST elevations on ECG; interstitial infiltrates on CXR; and a hct of 30 with an MCV of 75, troponin T of 5.0, and glucose of 200. The following problem list would be incorrect:

1. Chest pain
2. Bibasilar crackles
3. JVD
4. S3
5. Abnormal ECG
6. Abnormal CXR
7. Elevated troponin T
8. Low hct
9. Low MCV
10. Hyperglycemia

While it is complete and somewhat prioritized, #5 & #6 are not specific and it is very redundant.

The following is a better example:

1. Acute anterior MI
2. CHF secondary to #1
3. Microcytic anemia
4. Type 2 DM

This list is complete, prioritized, specific, and yet concise.

The Assessment and Plan

This is the place where you *commit* to a diagnosis, provide insight into your reasons, and recommend a plan for treatment or further evaluation. The organization of this portion of the write-up is the most flexible because each patient has a different number of active medical issues and a different level of complexity. The key is to choose a format that provides the most clarity and organization.

For example, the rare patient who is generally healthy and comes in with a very straightforward diagnosis may require only one line of assessment followed by your treatment plan. (A-“54 yo woman with LLE DVT precipitated by recent initiation of HRT. P- Heparin 80U/kg bolus, then 18U/kg/hr; heparin protocol; check platelets in 3d; warfarin 5 mg qd once PTT therapeutic”)

However, most patients you admit will have many problems and you may not be sure of the exact diagnosis. When you are unsure of the exact diagnosis, you should still commit to what you think is most likely and why. But you should follow this by commenting on the next 1-3 diagnoses that are also possible **and why**. Your differential diagnosis may include many more than 4-5 items but most of them are unlikely. A good rule of thumb is that you should provide specific comment about anything in your differential that you are planning to evaluate or address in some way. You need only add a comment that ‘W, X, Y, and Z are unlikely but should be considered if the initial work up is negative’. Do not include things in your differential that you know the patient doesn’t have. (e.g. splenic infarct in a patient with LUQ pain and remote history of splenectomy) **It is very important to go through the exercise of generating as broad a differential diagnosis as you can for each patient. (This separates the master clinicians from the ordinary.)** However, you do not need to include it as a separate list. It should flow as part of your assessment as described above.

For patients with multiple active problems, you need to address each problem. (PLEASE NOTE: this is not the same thing as your problem list. In the assessment you are synthesizing and prioritizing the information from your problem list and often you can combine much of it into 1-2 diagnoses and problems that are unlikely to be active during the hospitalization can also be omitted from the assessment.) However, many of these problems may be related to prior diagnoses and, therefore, do not need a differential diagnosis and your detailed thought processes. They should be listed as diagnoses with a brief comment about acuity. (For example, HTN- well-controlled, type 2 DM with poor control, hypercholesterolemia- untreated). “Cards” is neither a diagnosis, nor a problem. **DO NOT ORGANIZE YOUR NOTES BY SYSTEMS NO MATTER WHAT YOU SEE OTHERS DO.** In general, organizing by systems rather than problems and diagnoses leads to sloppy thinking because you lose sight of the symptom or problem you are treating and often do not prioritize the problems correctly.

The plan can be incorporated into the assessment (A/P), listed in a separate paragraph, or a little of each. You will decide based on which allows it to flow the most naturally. The plan should address both the diagnostic evaluation required and therapies. Be specific as if you were writing the orders yourself.