- If your patient in unable to provide a reliable history (i.e. secondary to illness or dementia), you may have to rely on family members if present, or focus on their present symptoms. You may even have to construct a timeline of events based on what they are able to recall.

- Remember the elements of the HPI:

  - ✓ The HPI should generally include any details relevant to the chief complaint, stretching back to when the patient was last in his/her usual state of health.

  - ✓ When you identify an abnormal symptom, be sure to ask any appropriate follow-up questions. Identify the onset, location / position, quality, severity, duration, timing, modifying factors, and context if applicable. This could be a clue to the underlying diagnosis.

  - ✓ Remember to ask pertinent positives (A.K.A. "relevant ROS.") If you are convinced your patient has heart failure because they already carry this diagnosis and presents with shortness of breath and leg swelling, you will still need to confirm with additional questions. Does the patient have PND or orthopnea? Why is the patient worse now? Did the patient stop taking his/her medications? Did he/she start eating a lot of fast food? What is his/her exercise tolerance like?

  - ✓ Remember to ask pertinent negatives. In the case above, even though you are convinced the patient is presenting with a CHF exacerbation, you will want to support this by excluding other causes for shortness of breath. Do they have cough or fever (pneumonia)? Does he/her have a family history of blood clots or recently take a long international plane flight (pulmonary embolus)? The questions that the patient answers "no" to are reassuring and can be just as important as those to which they answer "yes."

  - ✓ After the HPI, be sure to include the PPI (Patient's Perspective of their Illness)

- It is generally best to complete your assignments soon after each session. You will be able to retain more information and recall details that you may have not written down.

Presenting the HPI

- Chronology is extremely important. Presenting a HPI is like telling a story. The HPI should ideally be in chronological order, include key events, be well organized, and include only the most relevant information. The HPI starts from when "the patient was in their usual state of heath", and ends when he shows up at the clinic or hospital.

- When presenting a patient's symptoms, remember to describe the location, quality, duration, severity, timing, context, modifying factors, and any associated signs and symptoms.

- Attempt to group symptoms by diagnosis. For example, when describing a patient's shortness of breath, you might report the patient's productive cough, fever, and sick contacts (pneumonia). You could then report the absence of PND, orthopnea, weight gain, and pedal edema (CHF).

- When presenting the HPI, remember to focus on the most relevant information. Other information that is unrelated can be mentioned at the very end of the HPI or as part of the ROS.

- Remember to keep your presentation structured and report only historical information within the history. Resist the temptation to digress into physical exam findings unless the patient specifically refers to them when describing their symptoms. Similarly, save any commentary or discussion for the assessment/plan portion of the presentation (you will learn about this later this quarter).

- The elements of an excellent oral presentation should also be applied to your written HPI assignment.

Presenting the Physical Exam

- Always begin reporting of the physical exam with a summary of the patient's general appearance. (e.g. "Ms. Q is a well nourished, healthy appearing middle-aged woman in no visible discomfort", "Mr. T is an anxious-appearing, cachectic elderly man in moderate respiratory distress")

- Remember to obtain vital signs. These are part of the physical exam. You should try to obtain them yourself. If your patient is on a telemetry unit, you may be able to confirm your measurements with the monitor.

- The most prominent and thoroughly reported sections of the physical exam should be those that are most directly relevant to the chief complaint.

- Remember that medical conditions may manifest many different physical exam findings. For example, if you suspect liver disease because of signs of jaundice and ascites, remember to also check for asterixis, caput medusae, spider angiomas, palmar erythema, etc…). Even if the patient does not have all these findings, it is still relevant to comment that you did not appreciate these findings. Sometimes a negative finding is just as important as a positive one.

- You may find it helpful to reference an online source after your patient encounter to review information related to your differential diagnosis or exam findings. Consider using this new information during your oral presentation and / or in your write up.

Generating a Summary Statement & Problem List

- The summary statement should include only the most relevant historical, physical exam, and lab elements in one or two brief sentences.

- There is varied practice as to whether or not the summary statement also includes a most likely diagnosis. (See example “a” vs. “b” below)

- When presenting your summary statement, avoid repeating large portions of the HPI. They can often sound similar but your assessment should reflect your interpretation of the patient’s condition after you have synthesized the information you have gathered.

- The problem list should be comprehensive and include any discrete issue that could complicate either the patient’s short-term or long-term wellbeing. These include both acute, active medical/psychiatric problems (e.g. appendicitis, acute kidney injury, active suicidal ideation, etc…), chronic medical problems (e.g. hypertension, hypothyroidism, obesity, etc…), and psychosocial issues (e.g. homelessness, social isolation, alcohol dependence, etc…)

- The problem list should be presented in order of most acute to least acute.

Examples of effective summary statements:

Example #1a:
“*In summary, Mr. M is a 60 year old male with a history of hyperlipidemia, CAD s/p prior MI, and 2 months of crescendo angina, who presents today with 20 minutes of severe chest pressure and shortness of breath. Objective data includes modest hypoxia, crackles, and an S4, dynamic ST depressions on EKG, and a troponin of 2.5, all of which are consistent with an NSTEMI.*

Example #1b:
“*In summary, Mr. M is a 60 year old male with a history of hyperlipidemia, CAD s/p prior MI, and 2 months of crescendo angina, who presents today with 20 minutes of severe chest pressure and shortness of breath. Objective data includes modest hypoxia, crackles, and an S4, dynamic ST depressions on EKG, and a troponin of 2.5.”*

Example #2a:
“In summary, Ms. R is a 85 year old nursing home resident presenting with 12 hours of shortness of breath and chills, who was found to have an O_2 sat of 85% on room air, WBC of 15, and a RML consolidation on chest X-ray, all concerning for healthcare associated pneumonia.”

Example #2b:
“In summary, Ms. R is a 85 year old nursing home resident presenting with 12 hours of shortness of breath and chills, who was found to have an O_2 sat of 85% on room air, WBC of 15, and a RML consolidation on chest X-ray,.”

Generating a Differential Diagnosis

- Anticipate whether your questions will narrow your differential diagnosis and lead you to the underlying disease. For example, if you are trying to decide between kidney stones, appendicitis, and pancreatitis for causes of abdominal pain, blindly following a checklist of predetermined questions may not yield additional useful information because the answers are unlikely to help you frame your next question. Asking questions about whether the pain occurs after meals, changes with positioning, and the quality of the pain may be more helpful.

- As you obtain more information from your patient, think about what diagnosis they may have and the questions that will follow. Begin grouping your interview questions together. For example, if your patient reports a cough, you should begin to instinctively follow-up with questions about dry vs. productive, color of sputum, presence of fever, duration, sick contacts, etc… when thinking about pneumonia. You might then follow-up with questions about weight loss, night sweats, foreign travel, and hemoptysis to evaluate TB.

- When asking a patient a question, think about why you are asking that particular question. What diagnosis are you trying to get at? How will the patient's answer guide your future line of questioning?

- You may find it helpful to reference online sources shortly before meeting with your preceptor in order to help expand your differential diagnosis.

- Consider whether your differential diagnosis is applicable to your patient. While the differential diagnosis for shortness of breath may include PE, pneumonia, CHF, COPD, interstitial lung disease, etc… it will be more helpful to your audience if you are able to prioritize which you think is most likely. It is often helpful to include a few statements to support or argue against each diagnosis on the differential. For example:

  "The most likely cause of this patient's shortness of breath is CHF because of his known history of heart failure, his high salt diet, and his presentation of lower extremity edema along with his elevated neck veins and S3 on exam. Pneumonia is also on the differential, but this is less likely since he is afebrile, he denies cough, and had no sick contacts."

Incorporating Labs and Studies

- Sometimes the history and physical exam can only narrow the differential diagnosis, but additional information is needed to determine the underlying causes for a patient's symptoms. This might include laboratory data, imaging, or information from other diagnostic procedures.

- The most current labs and other studies are usually presented in after the physical exam, before the summary statement is given.

- Older labs and studies can be presented in the HPI or PMH if they are relevant. For example, if a patient has chronic kidney disease, you might mention in the HPI or PMH that their baseline creatinine ranges between 2.1-2.6. When mentioning the current labs after the HPI, you could then note that the creatinine is 2.4 today.

- Not all labs need to be presented. Generally only the most important and relevant data needs to be presented.

- Not all abnormal labs are clinically significant. It will take time and experience to learn which labs to deemphasize. If in doubt, it is probably better to include in your presentation.

- Sometimes normal labs are just as important as abnormal ones because they can help to exclude a diagnosis. If a patient presented with abdominal pain, but the amylase and lipase were normal, that might move pancreatitis lower down on the differential and so it would be important to note this.

- The amount of detail and data considered important can oftentimes be dependent on the specialty or physician you are presenting to. Sometimes it is helpful to either ask for the level of detail desired ahead of time, or to get a sense by observing presentations by other team members.

The Assessment and Plan

- The summary statement is usually followed by a list of actions for each item on the problem list. Together, these are more commonly referred to as the assessment and plan.

- The assessment and plan is considered one of the most important sections of the presentation. It is where all the information presented up to this point is synthesized and clinical reasoning is demonstrated.

- Remember that the Assessment and Plan should start by a summary statement which includes only the most relevant historical, physical exam, and lab elements in one or two brief sentences. This should not just be a list of symptoms and data, but also include a few words that interpret what the most likely diagnosis could be.

- There should be a plan for the day for each item on the problem list. If you are having difficulty coming up with the plan, it often helps to think of what needs to be done diagnostically, and what needs to be done therapeutically. For example, if a patient presents with fever and shortness of breath that could be from pneumonia, we can order

a CXR and order a CBC (diagnostic plan). However, neither will make the patient better so we may also need to also give oxygen and empiric antibiotics (therapeutic plan).

- The plan can change from day to day, especially early on in an admission. On the first day, the problem list may be primarily symptom based. However as the hospitalization continues, hopefully there is more information which leads to actual diagnosis. For example, on admission, a patient's problem list may include chest pain. Later on, this might be modified to CAD/NSTEMI when the cause becomes clear.

- Sometimes it is easier to organize the plan by symptoms. Other times it is easier to organize by diagnoses. In extremely complicated patients, the plan is organized by organ systems. However, this is generally reserved for patients who are hospitalized in the intensive care unit.

  "*In summary, Mr. M is a 60 year old male with a history of hyperlipidemia, CAD s/p prior MI, and 2 months of crescendo angina, who presents today with 20 minutes of severe chest pressure and shortness of breath. Objective data includes modest hypoxia, crackles, and an S4, dynamic ST depressions on EKG, and a troponin of 2.5, all of which is consistent with an NSTEMI.*"

  1) Chest pain – we are most concerned about NSTEMI given his cardiac risk factors and past medical history, along with the elevated troponin and EKG changes.
     a. Continue monitoring cardiac enzymes to trend the direction
     b. Obtain an echo / ultrasound of the heart to better evaluate cardiac function
     c. Start Aspirin and heparin drip
     d. Give Morphine and sublingual nitroglycerin as needed for pain

  2) Shortness of Breath/Hypoxia – This is most likely due to CHF, acutely worsened by his NSTEMI. This is supported by his physical exam findings
     a. Obtain a CXR to look for pulmonary edema
     b. Give supplemental oxygen
     c. Consider diuresis with furosemide to decrease the preload.

  3) Hyperlipidemia – His most recent lipid panel has shown moderate control. However he is already on maximum dosing for medical management
     a. Continue his home regimen of statin and other lipid lowering agents.

Practicing the Full H&P

- This is another opportunity to practice the full H&P before the end of the quarter.
- Review the feedback that you have received during this course and incorporate into your presentations and write-ups.

The Structure and Principles of the Medical H&P

"How to look good by being good"

By Christophe Gimmler
Revised by Eric Strong

The History and Physical is an important foundation of clinical practice. Like any learned skill, achieving a high degree of proficiency with the H&P requires not just experience, but also intentional practice. That is, the motivated student will need to go beyond simply writing one H&P after another. In addition, the student will need to critically review prior H&Ps, actively seek out feedback from more experienced clinicians, and constantly look for ways in which his/her H&P composition can be improved.

Along the way, one should remember that the functions of the H&P are to:

- Convey important information to other clinicians actively involved in the patient's case.
- Formally document a patient's presentation in the medical record, in the event that later review is necessary.
- To help remind the H&P writer of all the important historical and objective data to obtain, and to help the writer synthesize that data into a coherent impression and plan.
- To demonstrate to insurance companies the level of care that the writer is providing to the patient for billing purposes.

(While this final function will seem less important to the trainee, it should be stressed that failure to appropriately document one's work may lead to a failure to be paid for it.)

What follows is an example of a complete H&P written in a conventional format, with an organization and level of detail that medical students should have as a goal. There are innumerable slight variations to the format seen in common practice (some of which are mentioned below), but all follow the same general scheme. Listed alongside the various sections of this H&P are some general principles that apply to those respective sections. Not every principle will apply to every H&P. However, keeping these principles in mind, along with sticking to the conventional format, will allow one to write outstanding H&Ps that maximize both the effectiveness of communication to other clinicians, as well as the positive impression of the writer that H&Ps can convey to peers and faculty.

Finally, it is important to realize that the written H&P and the verbal presentation are not identical. While they share similar form and similar principles, they have different purposes. As a general rule, the verbal presentation will be less detailed than the written note. The major purpose of the verbal presentation is to convey information to other providers (i.e. your teammates) to facilitate making management decisions in real-time. Therefore, the verbal presentation should focus only on that data which is relevant to the active problems or the current hospitalization. Also unlike the written H&P, one's audience can ask questions if important details are left out or remain unclear after the presentation is complete.

Source:	
Patient and family member were interviewed	Principle: Most times, the patient will be the primary source of information. However, there if either the primary source of historical information is not the patient, or if the patient seems unreliable, this should be stated
Identification/Chief Complaint (ID/CC):	
Mr. S. is a 55 year old man with a history of CAD and prior MI, presenting with shortness of breath for 2 days.	Principle: The chief complaint should introduce the framework into which the reader will categorize all subsequent information. Principle: The chief complaint should contain age, gender, centrally relevant HPI, and the patient's stated main complaint (either in their own words, or more commonly, in the writer's short summary phrase).
History of Present Illness (HPI):	
Mr. S., who appears to be an unreliable informant due to apparent alcohol intoxication, reports being in his usual state of health until 1 week ago, at which time he noted the onset of mild bilateral and symmetric leg swelling. There did not appear to be any inciting event. The legs were neither erythematous nor painful. The swelling was relatively stable for a few days, but then began to worsen more dramatically 2 days ago. At that time, Mr. S. also developed shortness of breath, initially with ambulating up stairs, but then with ambulating short distances across level ground, and several hours ago had progressed to being present at rest. Aside from ambulation, lying flat also appears to worsen his breathing, and he needed to sleep last night sitting up in a chair. He denies chest pain, palpations, lightheadedness, abdominal distention, fevers, and cough. Although he denies medication	Principle: Report the history in chronological order, starting from when you feel the central problem began, and continuing through to the time of the patient's presentation to the hospital or clinic. Principle: Depending upon the specific presentation, and upon the expectations of the reader, the HPI may take the form of several paragraphs of prose, presenting the history as a story; or (less commonly) it may take the form as a list of dates indicating specific symptoms, prior medical visits, or treatments that were related to that day.

non-compliance, his prescription refill history suggests otherwise (described below).	<u>Principle:</u> Identify pertinent positives and negatives. <u>Principle:</u> For pain-related symptoms, mention location, severity, qualitative nature, and aggravating and alleviating factors. <u>Principle:</u> Highly relevant details from the PMH, med history, social history, family history, and ROS can be mentioned in the HPI. <u>Principle:</u> You are the historian, and it is your job to filter information and discriminate relevance. If there are symptoms that are obviously unimportant, you should de-emphasize them. If there are symptoms that are critical, you should focus on them, even if the patient does not. <u>Principle:</u> State explicitly what you don't know, as it indicates the information is possibly relevant, and it may need to be investigated further at a later time.
Patient's Perspective of Illness	
When asked what he thinks might be causing his shortness of breath, Mr. S. replied "probably my drinking."	<u>Principle:</u> The PPI should indicate what the patient believes is causing his/her symptoms, or of what diagnosis he/she is most afraid.
Past Medical History	
<u>Medical History</u> CAD, s/p NSTEMI 2007, with bare metal stent placed in mid	<u>Principle:</u> Depending upon the patient, it may be helpful to separate out medical vs.

LAD. (Bare metal due to concern for clopidogrel non-compliance.) Other coronaries with only modest stenoses not felt to be significant at the time. Hypertension, diagnosed 2000 (baseline SBP ~140s-160s in clinic) Hyperlipidemia, diagnosed 2000 (last LDL=145 in 5/11) Alcohol abuse x 10 years (see below for details) Chronic low back pain Glaucoma Has never received either the pneumovax nor influenza vaccines. <u>Surgical History</u> None <u>Psychiatric History</u> Major depressive disorder vs. substance-induced mood disorder (intermittently followed by mental health clinic)	surgical vs. obstetric vs. psychiatric history. <u>Principle:</u> Order items by relevance to the CC/HPI. <u>Principle:</u> Consider grouping items by common pathophysiology or organ system. <u>Principle:</u> Provide detail in direct proportion to the relevance to the CC/HPI, including dates. <u>Principle:</u> State chronic disease "markers", both clinical and laboratory, when relevant.
Medications	
Aspirin 81mg daily Metoprolol 25mg bid Lisinopril 20mg daily Hydralazine 25mg tid Citalopram 20mg daily Oxycodone 5mg prn (avg 2-4 tabs/day) "Occasional" OTC ibuprofen use (despite his PMD's strong recommendation to avoid this given his history of HTN and alcohol abuse) Various eye drops from a private ophthalmologist, the names of which the patient cannot remember. Although he reports "pretty good" compliance with his outpatient meds, a review of his medical chart and pharmacy	<u>Principle:</u> Order drugs by relevance to the CC/HPI <u>Principle:</u> Group drugs by association. This will help to identify and critique regimens for specific diseases, including identification of important omissions. <u>Principle:</u> Include OTC medications and herbal/natural supplements <u>Principle:</u> Always use the generic names of drugs.

records indicates he last received a 90 day supply of his meds 6 months ago. Mr. S. reports not being on a statin because "Statins hurt my neighbor's brother. No way I'm going to take one of those."	Principle: Report compliance with medications. Principle: If there is a medication or drug class that seems to be a significant omission given the patient's PMH, the reason for its omission should be stated here, unless covered under Allergies. Principle: Can report relevant immunizations here, or under a separate heading.
Allergies/Adverse Drug Reactions	
Morphine – Upset stomach per patient report Amoxicillin – Urticaria per MD observation in 2007.	Principle: Remember that most adverse drug reactions are not true allergies, but they should still be reported here. Principle: Always state both the drug and the reaction (if known), as well as whether that reaction was self-reported by the patient, or observed by medical staff.
Social History	
Mr. S. is currently married with 2 adult children from whom he is relatively estranged. He works part-time as a handyman, but otherwise does not regularly exercise. He reports eating fast food several times a week. No recent travel outside of California, but does travel through the Central Valley several times a month. He has no unusual animal exposures. Alcohol – Drinks 6-12 beers/day for ~10 yrs. Has never attempted to quit. No prior alcohol-related admissions or withdrawal symptoms. Smoking – Smoked 1ppd for 20 years, but quit 2010. Drugs – Denies any history of illicit drug use	Principle: The social history includes more than just substance abuse history, but also marital status, family structure, residential situation, occupation, exercise pattern, diet, travel history, sexual history, and unusual animal exposures. Occupation, travel history, and animal exposures are particularly relevant for sub-acute and chronic pulmonary complaints.

	Principle: Alcohol, drug, and smoking history, along with diet and exercise can also be placed under a separate heading of "Lifestyle" or "Health Related Behaviors". Principle: For smoking history, the quantity smoked should be described either as packs per day (ppd) per years (if the smoking habit was consistent over time), as "pack-years" calculated as average ppd times the number of years smoked (if the smoking habit varied significantly over time and a more granular description would be awkwardly lengthy). One should indicate whether the patient is still smoking, and if quit, when that occurred. Principle: For a significant alcohol and drug history, report if the patient has ever experienced severe withdrawal symptoms (e.g. alcohol withdrawal seizures), keeping in mind that many alcoholics will use the term "DTs" to refer to withdrawal episodes that fall below the severity of what physicians classify as true delirium tremens (DT).
Family History	
Mother – Alive at 85 with "heart problems" Father – Died at 82 from "old age", but also had a heart attack in his 70s. No siblings	Principle: Focus on first and second degree relatives with diseases that convey established familial risk (e.g. cancers, cardiovascular disease, diabetes, clotting disorders, psychiatric disease). Diseases present in cousins and more distant relations are usually not relevant.

	Principle: There may be situations in which "Non-Contributory" as the sole response to the family history may seem appropriate. However, this will prevent successful billing, and should thus be avoided.
Review of Systems (ROS)	
HEENT – Denies headache Neck – Denies any "lumps or bumps" Pulm – As per HPI Cardiac – As per HPI GI – Endorses chronic constipation x years. Denies nausea/vomiting, hematochezia, and melena Urinary/GU – Denies dysuria, urinary frequency, and hematuria MSK – Endorses daily low back pain for many years. Denies joint pain or joint swelling elsewhere. Neuro – Denies weakness, episodes of loss of consciousness Skin – Denies rashes, pruritis Psych – Mildly depressed mood, never has had thoughts of harming himself or others Ext – As per HPI	Principle: Anything relevant to the chief complaint should be mentioned in the HPI. Principle: Anything mentioned in the HPI does not necessarily need to be repeated here.
Physical Exam	
General: Well developed middle aged man, disheveled, in mild respiratory distress. Vitals: T 98.5°, HR 110, BP 192/116, RR 28, O2 sat 88% on RA. HEENT: Sclera anicteric, nasopharynx normal, poor dentition w/o signs of active infection. Nodes: No neck or axillary LAD. Chest: Mild accessory muscle use, symmetric respiratory excursion, no fremitus or egophany present, dullness to percussion at both bases (R=L), diminished lung sounds at bases b/l (R=L), diffuse crackles throughout both lungs (R=L). Cardiac: JVP at ~14cm, venous waveforms o/w appear normal, PMI enlarged and displaced to 2-3cm lateral to mid-clavicular line, no precordial heaves, rate is tachycardic and regular, S1 and S2 are loud but o/w normal, soft S3	Principle: Establish a core set of items that you check on almost every patient (e.g. cardiac auscultation, assessment of gait, assessment of short-term memory, etc…) Principle: There is no such thing as a "full physical", so tailor your exam to the CC/HPI. Sections of the exam that are more centrally relevant to the CC/HPI should be emphasized and in greater detail. Principle:

at the apex. No S4. No murmurs. Abdomen: Non-distended with no scars. Tympanic to percussion throughout, liver edge palpable at 4cm below the costal margin; it is firmer than normal but non-tender. Spleen is non-palpable. There is no tenderness or palpable masses. Pulses: 2+ (normal) carotid, radial, and DP b/l. Ext: Moderate pitting edema to lower thighs b/l (R=L). No calf tenderness, no leg erythema. No clubbing or cyanosis. Terry's nails are noted in multiple fingers. Skin: Mild venous stasis changes in feet and ankles b/l, o/w normal. Neuro: Mental status – Awake, alert, and oriented to person, place, time, and situation. Speech is slurred, with mild word finding difficulties. Thought process w mild perseveration. 1/3 5 min recall. CN – II-XII intact aside from mild b/l nystagmus Motor – Normal muscle bulk, no involuntary movements, 5/5 strength in major muscles groups Reflexes, sensory – Not assessed Coordination / Gait – Wide based and unsteady. Heal to toe not assessed due to perceived fall risk.	Always begin the reporting of the exam with a statement as to the patient's general appearance (e.g. "Mr. Smith is a cachectic man, appearing older than his stated age, in obvious respiratory distress."), along with the patient's vitals at the time of examination (including oxygen saturation). <u>Principle:</u> Use appropriate medical terminology when reporting the exam. <u>Principle:</u> Never document an exam item which you did not perform yourself, with the exception of those which are very sensitive for which the patient would understandably decline to have repeated (e.g. anoscopy, pelvic exam). In this circumstance, always specifically indicate the examiner.
Labs/Diagnostics	
CBC: WBC=8 (60%N, 30%L, 8%M, 2%E), Hgb=10.4 (baseline=10-12), plts=170 Chem: Na=128, K=3.8, HCO3=24, BUN=32, Cr=2.0 (baseline=1.0-1.3), Mg=1.9 LFTs: AST/ALT=120/65, alk pho=120, total bili=3.5, albumin=2.6 Coags: INR=1.3 BNP = 1240 Troponin=0.4, CK=325 UA: Spec. grav = 1.030, 2+ proteinuria, o/w normal. Ethanol=80 EKG: Sinus tachycardia @ 110 bpm, QRS axis = -45°, LVH present based on Romhilt-Estes criteria, ST depressions in V4-6 in strain pattern. CXR (portable, interpretation reviewed with admitting medicine	<u>Principle:</u> While documenting all diagnostic findings, highlight labs that are relevant to the patient, including a reporting of their baseline values. <u>Principle:</u> Summarize and synthesize diagnostic reports (e.g. EKGs, X-rays, CT scans, TTEs), instead of copying and pasting the actual report. <u>Principle:</u> Only binary tests should be reported as "positive" or "negative". For example, it is completely appropriate for a fecal occult blood test to be reported as positive. However, a urinalysis should not be since this leaves vague what exactly the UA was positive for, and to what degree. Reporting non-binary tests as either "positive" or "negative" also

resident): Moderate cardiomegaly, diffuse pulmonary edema (R=L), mild b/l pleural effusions. Bony structures and soft tissue appear normal.	invokes personal interpretation, which contradicts the objectivity of the Labs/Diagnostics section. Principle: Provide dates of diagnostic tests, and indicate the source of interpretation (e.g. medical student vs. medical resident vs. radiology attending).
ER Course (Optional)	
Mr. S. received ASA 162mg x 1, SL nitroglycerin tab x 1 followed by NTG gtt, and furosemide 40mg IV x 1. An arterial line was placed. Over the next 2 hours, his HR remained unchanged, but BP came down to 130s-150s/90s-100s, and he put out 1500mL of urine. His shortness of breath is now modestly improved.	Principle: It is often difficult to understand the impression and/or plan without some knowledge of what occurred to the patient in the emergency department (for hospitalized patients), and it can be awkward to include this information elsewhere. While reporting the ER course immediately after the HPI is common practice, there are no advantages to including it there over this location, and it often induces preventable bias by strongly suggesting a specific diagnosis prior to the presenting of the objective data to the reader/listener.
Summary Statement (a.k.a. Impression)	
Mr. S. is a 55 y/o man with a history of CAD, alcohol abuse, and medication/dietary non-compliance who presented with 2 days of progressive dyspnea, found to have severe hypertension, elevated JVP, S3, and crackles on exam, along with pulmonary edema on CXR and elevations of BNP and creatinine. His overall picture is most consistent with hypertensive emergency from medication non-compliance, leading to heart failure complicated by acute kidney injury.	Principle: The summary statement should distill all of the preceding objective information down into a compact 1-2 sentence summary of the presentation. Principle There is varied practice as to whether or not the summary statement includes a hypothesis as to the most likely diagnosis.

Problem List (a.k.a. Assessment and Plan)	
Heart failure / Hypertensive Emergency – While the general differential diagnosis for shortness of breath is quite broad, the history of CAD and alcohol abuse, along with the presence of orthopnea, LE edema, diffuse crackles, elevated JVP, and an S3 all strongly suggest heart failure as the cause. Given the concurrent presence of severe hypertension and pulmonary edema, one could also label his presentation as hypertensive emergency, as excessive afterload is certainly contributing to his cardiac pathophysiology. The significantly elevated BP is probably caused by medication non-compliance, but can also be caused by alcohol withdrawal, cocaine/ methamphetamine intoxication, and rarer but potentially deadly conditions such as aortic dissection (less likely due to absent CP) and intracranial bleed (less likely due to non-focal neuro exam). Beyond hypertensive emergency, there are many other potential contributing etiologies to Mr. S's heart failure. Among the more likely of these are an acute MI, long-term sequalae of prior MI (i.e. ischemic cardiomyopathy), chronic alcohol abuse, and unreported cocaine/meth use. There are other items on the differential diagnosis for Mr. S's dyspnea that are unrelated to heart failure. These include aspiration pneumonia (alcoholism is a risk factor for this, though this dx is not particularly supported by the exam) and a pulmonary embolism (LE edema might be due to b/l DVT and massive PE can lead to an S3 and elevated JVP, but would not be expected to cause pulmonary edema on CXR and exam.) However, if we label his LE edema as inconsistent with PE due to its bilateral and symmetric nature, his Wells' score is only 1.5 (for tachycardia), which places him in the "PE unlikely" category. Diagnostic: • R/o for ACS with serial troponins and EKGs. • Check urine tox screen. • TTE in AM. • Hold off on V/Q scan for now, though will keep PE in mind in the event that he fails to respond to heart failure treatment or if he abruptly worsens. Therapeutic: • Continue NTG gtt with goal SBP of 120s-140s over the next 6 hours, with careful attention made to avoid	<u>Principle:</u> The problem list should be all inclusive of all issues that currently affect the patient's wellbeing, or which are reasonably expected to do so in the future. These can be the acute problems for which the patient is in the hospital/clinic, chronic problems which are managed in the primary care setting, and psychosocial problems (e.g. homelessness, drug abuse, unemployment, obesity) that can affect medication compliance or the ability to adhere to the follow-up plan. <u>Principle:</u> The problem list should be prioritized by acuity and/or immediate importance. <u>Principle:</u> Problems that have strongly overlapping pathophysiologies and/or etiologies can be grouped together as a single entity. <u>Principle:</u> Each active problem which is contributing or in some way directly related to the patient's CC/HPI should have a differential diagnosis (unless the diagnosis is previously and unambiguously established). The differential diagnosis should include both the etiologies that are most likely, as well as several that would be especially dangerous to miss. <u>Principle:</u> Some problems which are symptoms may actually have two differential diagnoses. The first for the symptom (i.e. dyspnea may be due to heart failure, pneumonia, pulmonary embolism, anemia, etc…). The second for the

excessive BP control as he may have lost the ability to autoregulate. • Furosemide 20-40mg IV prn to achieve net diuresis of at least 2L during the patient's first 24 hours. • Restart outpatient hydralazine 25mg IV tid for afterload reduction. • Will hold outpatient lisinopril until AKI resolved. • Will hold metoprolol while severely volume overloaded. • Holding off on inotropic support, as his problem appears more consistent with excessive afterload and volume overload, and less so with pump failure. • With lack of leukocytosis or focal infiltrate, will hold off on antibiotics. Acute kidney injury: This is most likely due to poor renal perfusion from heart failure (i.e. pre-renal), however it could also be secondary to direct glomerular damage as an additional manifestation of hypertensive emergency. The former is felt more likely due to the relatively high urine specific gravity, and the lack of hematuria on UA. Diagnostic – Check FE_{urea} Therapeutic – No specific therapy at this time aside from acute heart failure and hypertension management as above. Will hold outpatient ACE-I until AKI resolved. Alcohol abuse Diagnostic – Will closely observe for signs/symptoms of alcohol withdrawal Therapeutic – No acute therapy for withdrawal is indicated at this time. Will discuss Addiction Treatment Services and the patient's personal interest in sobriety once he is no intoxicated. Hyponatremia: Mr. S's physical exam is strongly consistent with hypervolemia, and thus his hyponatremia is most consistent with low effective circulating volume seen in heart failure, however alcoholic liver disease may also be contributing. Diagnostic – No specific work-up indicated. Will continue to monitor as heart failure is treated. Therapeutic – No therapy indicated at this time. Impaired gait: This is most likely a consequence of either his acute intoxication and/or chronic cerebellar damage from long-standing alcohol abuse. Since it hasn't been mentioned in prior clinic notes, it is most likely transient from intoxication. Diagnostic – Reassessment of gait once he is sober, PT/OT evaluation	clinical syndrome (i.e. heart failure may be due to acute MI, chronic alcoholism, cocaine/amphetamine abuse, sequelae of viral myocarditis, etc…) <u>Principle:</u> Be sure that the differential diagnosis is relevant and tailored to the specific patient. <u>Principle:</u> Critically evaluate the relative likelihood of each item on the differential diagnosis for each problem, using specific features of the presentation (subjective and objective) to provide evidence for and against each possible diagnosis. <u>Principle:</u> Divide each plan into a diagnostic plan and therapeutic plan (+/- education plan). <u>Principle:</u> The plan should be as specific as possible (e.g., specific medication strengths and dosing frequencies).

Treatment – PT/OT evaluation Elevated LFTs: Possible mild acute alcoholic hepatitis vs. chronic liver disease. Diagnostic – Continue daily monitoring. If LFT abnormalities do not resolve over the next several days, will consider RUQ ultrasound. Given that alcoholism is s risk factor for chronic viral hepatitis, will check HBV and HCV serologies. Treatment – No treatment indicated at this time. Macrocytic anemia: Given his history, this is likely secondary to alcohol and/or liver disease, however vitamin B12 deficiency or folate deficiency due to malnutrition are also possibilities. Diagnostic – Will review smear with heme lab staff. Check vit B12 and folate levels, along with reticulocyte count and iron panel for completeness. Since hypothyroidism can also lead to high MCV, will check TSH. Therapeutic – No need for transfusion at this time. Giving empiric multivitamin as above. Hypoalbuminemia: Likely from overall poor nutritional status vs. chronic liver disease. Diagnostic – None indicated at this time Therapeutic – Nutrition consult Proteinuria – As mentioned above, likely chronic as a consequence of long-standing poorly controlled hypertension. No indication of more unusual forms of glomerular disease. Diagnostic – None indicated at this time. Treatment – Will eventually benefit from continuation and possible up titration of his lisinopril, once his AKI is resolved. Hyperlipidemia: Cardiovascular risk factor not optimally controlled as an outpatient. Diagnostic – Repeat fasting lipid panel as inpatient. Therapeutic – Will discuss benefit of statin use, along with limited alternatives to statins, once patient is sober. Chronic low back pain Diagnostic – Provided that it is not worse than baseline pain, no diagnostic studies indicated. Therapeutic – Continue outpatient oxycodone 5mg q4h prn. Education – Once sober, will discuss risks/benefits of OTC NSAIDs Glaucoma	

Diagnostic – Will ask family to bring in eye drops from home. Therapeutic – Will restart outpatient eye drops once they are known. Lack of exercise Education – Once sober, will discuss health benefits of regular exercise.	
Goals of Care (a.k.a. "Code Status")	
Mr. S's stated goal during this admission is "to get better". In the event of cardiac and/or respiratory arrest, he requests "do everything you can doc to bring me back". Although he is intoxicated, his family was not immediately available to discuss this further. Will therefore designate him as FULL CODE for now, and reassess once he is sober.	<u>Principle:</u> Should not simply state "Full" vs. "DNR/DNI", but should also include who was responsible for that decision, or how that conclusion was reached. <u>Principle:</u> The goals of care does not need to be limited to just "code status", but can also include what the patient (or family) hopes to achieve from this hospitalization, or the patient's wishes about specific interventions such as dialysis, feeding tubes, ICU transfer, etc...

Sample Questions for the Review of Systems (ROS):

This is an overview of current symptoms and past medical history **not already covered** in the preceding sections of the interview. This section uses a "system" organization for the questions (i.e., questions are asked sequentially about each organ system/body region). It is not necessary to repeat questions that have already been asked in the context of the HPI.The ROS should be streamlined and not dominate the medical history.

General: How is your health in general? Have you gained or lost weight? Have you noted any fever? Are you tired? Are you weak? Have you had a cholesterol test? Are you anemic? Have you ever had a blood or blood-product transfusion? (HIV antibody tests first available in 1985).

Skin: Are you concerned about any skin bumps? Do you have a rash? Sun exposure history. Do you use sunscreen?

Head: Do you have headaches? Any previous trauma?

Eyes: Any change in your vision?

Ears, Nose and Throat: Is your hearing normal? Do you have recurrent nosebleeds? Is hay fever a problem? Any hoarseness?

Mouth: Any dental problems? Any area of irritation or pain?

Neck: Have you noticed any enlarged glands? Any lumps?

Breasts: Do you do breast self-examination? Are you concerned about any lump or other change?

Respiratory: Do you have shortness of breath? On exertion? At night? Is cough a problem? Do you cough up any sputum or blood? Do you have wheezing? Do you snore?

Cardiovascular: Any episode of chest pain? Have you a history of high blood pressure? Or a heart attack? Or any heart disease? Do you have a murmur? Do you have any swelling of your ankles (edema)?

Gastrointestinal: How is your appetite? Any trouble swallowing food? Do you have abdominal pain? Or any nausea or vomiting? Have you ever had an ulcer? Or

gallbladder trouble?Any problem with bowel movements?Any black bowel movements or rectal bleeding?

Urinary: Any pain or burning when you urinate? Have you had bladder or kidney infections? Any blood noted in the urine? Do you ever lose any urine when you laugh or cough? Or other times? How often do you need to urinate at night? Any penile discharge? For older men: any difficulty in starting or stopping the urine stream? Any change in the force of urine flow?

Obstetrical and Gynecological: Menstrual history; pregnancy history. Any vaginal irritation or discharge?

Sexual History:

Women: Are you sexually active?(Or, since some patients interpret this quite literally, "Are you involved in any sexual relationships right now"?) With how many different partners? Are your partners men, women, or both? Have you had a sexually transmitted disease? Does your partner use condoms? Other methods of contraception? Are you planning to become pregnant at some point? When? Have you ever had problems conceiving or maintaining a pregnancy? Any questions or concerns about your sexual activity?

Men: Are you sexually active (Or, since some patients interpret this quite literally, "Are you involved in any sexual relationships right now?") With how many different partners? Are your partners women, men, or both? Have you had a sexually transmitted disease? Do you use condoms? Any difficulty having an erection or with your sexual activity? Have you ever had problems with infertility?

Musculoskeletal: Do you have any joint pain? Any muscle pain? Or back pain? Is there a history of arthritis? Do you have pain in your thighs or legs when you walk? Does rest alleviate the pain?

Neurologic: Have you ever lost consciousness? Or had a convulsion? Any loss of muscle power or control? Do you have any unusual feelings in your arms or legs?

Endocrine: Do you feel particularly hot or cold when other people don't? Any changes in the texture of your skin or hair?

Psychiatric: Have you been depressed? Or anxious? Have you ever consulted a psychologist, a psychiatrist, or other mental health professional?

COMMUNICATION CHECKLIST

Opening	
Introduces self, shakes hand	
Greets and shows interest in pt as a person; uses pt's name	
Obtains pt's consent for interview	
Explains his/her role and purpose of interview	
Explains or negotiates an agenda for visit	
Allows pt to complete opening statement w/o interruption	
Asks to elicit full set of concerns	Asks to elicit full set of concerns
Building the Relationship / Personal Rapport	
Establishes initial rapport	
Uses tone, pace, eye contact and posture showing care and concern	
Uses words that show care and concern	Uses words that show care and concern
Avoids technical jargon	
Establishes pt comfort	
Elicits and addresses emotional content	
Professionalism	
Demonstrates confidence / appears competent	
Appears to have pt's interest(s) at heart	
Active Listening	
Uses facial expressions/body language to express encouragement	
Pays attention to both pt's verbal and non-verbal cues	
Asks questions to make sure understands what pt said	
Information Gathering	
Begins with pt narrative using open-ended questions	Begins with pt narrative using open-ended questions
Collects information in a way that seems organized	Collects information in a way that seems organized
Clarifies details as necessary using closed, or yes/no, questions	Clarifies details as necessary using closed, or yes/no, questions
Summarizes and checks accuracy with pt	Summarizes and checks accuracy with pt
Makes transition statements / summary statements	Makes transition statements / summary statements
Patient Perspective	
Elicits pt's chief concern / Explored pt's explanatory model of illness	
Asks re: events, circumstances, other people that might affect health	
Responds explicitly to pt statements re: ideas, feelings, values	
Asks if pt has any questions	
Information Sharing	
Communicates to pt pertinent findings	
Checks for pt understanding of information	Checks for pt understanding of information
Closing	
Checks for mutual understanding of plan	Checks for mutual understanding of plan
Asks if the pt has questions, or concerns for next time	Asks if the pt has questions, or concerns for next time

Summarizes (or asks pt to summarize) plans until next visit
Clarifies follow-up or contact arrangements

ELEMENTS OF THE PATIENT'S REVIEW

Dimension of Care	Focus of Patient's Review
Respect for patient's values, culture, preferences, and expressed needs	What are the patient's short-term and long-term goals? What level of involvement does the patient want in decision-making? What does the patient need, want or expect from the health care system? What are the patient's feelings about an advance directive?
Coordination and integration of care	Does the range of providers deliver effectively coordinated care? Does the patient get consistent information from different clinicians?
Communication and education	Does the patient have the information wanted about clinical status, diagnostic tests, and treatment options? Do the patient and the family know what they need to know to manage on their own, to the extent they are able to do so?
Physical comfort	Is pain alleviated as much as possible? Does the patient have the help needed with bathing, eating, household chores, or other activities of daily living? Have remedial deficits in functional status been adequately addressed?
Emotional support and alleviation of fears and anxieties	Is the patient worried about his or her illness or its effect on the ability to care for one's self or one's dependents? What are the principal stresses in the patient's life? Is there concern about paying medical bills or about lost income due to illness? Does the patient have access to appropriate support networks to help with these worries?
Involvement of family and friends	Are family and friends appropriately included in planning and providing care? Do they have the support they need?
Continuity and transition	Do the patient and family understand which medications to

take, treatment regimens to follow, activities to pursue or avoid, and danger signals to watch for? Are there clear plans for continuing care and treatment?

From: Delbanco, T.L. Enriching the Doctor-Patient Relationship by Inviting the Patient's Perspective. Ann. Int. Med. 1992; 116: 414-418

CULTURALLY-AWARE PRACTICE:

UNDERSTANDING THE PATIENT'S PERSPECTIVE

Arthur Kleinman's eight questions for eliciting the patient's explanatory model (EM) of his/her illness:

1. What do you think has caused your problem?
2. Why do you think it started when it did?
3. What do you think your sickness does to you? How does it work?
4. How severe is your sickness? Will it have a short or long course?
5. What kind of treatment should you receive?
6. What are the most important results you hope to receive from this treatment?
7. What are the chief problems your sickness has caused for you?
8. What do you fear most about your sickness?

Kleinman, M., L. Eisenberg, and B. Good. 1978. "Culture, Illness and Care: Culture, illness and care: Clinical lessons from anthropologic and cross culture research." Annals of Internal Medicine 88:251-58.

Culturally Competent Communication Checklist: Did I…

- Elicit patient's explanatory model for her illness?
- Clarify family roles?
- Assess adherence to prescribed routines and medications?
- Ask about alternative medicines?
- Assess health related beliefs and practices?
- Acknowledge my patient's fears/anxieties?
- Negotiate a treatment plan that fit my patient's health beliefs and lifestyle?

TAKING THE SEXUAL HISTORY

A. Nonjudgmental attitude that expresses concern for the patient

B. Ask specific and clear questions about behaviors and avoid labels

C. Sample questions:

1. Are you currently sexually active?
2. Do you have sex with men, women, or both?
3. Have you had more than one partner?
4. How do you have sex?
5. Do you use safer sex techniques? Do you know what they are? Do you use them consistently? What steps do you take to have safer sex?
6. Have you ever had a sexually transmitted infection? Do you have sores, warts, or ulcers on your genitals? Has a doctor seen them? Do you have a fever?
7. Do you believe your partner(s) are having sex with other people?
8. Do you have any questions or concerns about sex that you want to discuss?
   (Be prepared to respond to any questions)

a. For women: Do you lubricate adequately?
   For men: Do you maintain erections adequately?
b. Do you have orgasms? (Be prepared to describe one)
c. For men: Do you think they come too quickly or too slowly?
   For women: Are they easy or does it take a while?
d. Is your desire for sexual behavior too much or too little (to you)?

9. Men and women: Were you sexually abused as a child?
   (Asking about sexual abuse is appropriate in the right context.)

DOMESTIC VIOLENCE / INTIMATE PARTNER VIOLENCE

Detecting Domestic Violence: The "SAFE" Questions

Stress and Safety

- What stress do you experience in your relationships?
- Do you feel safe in your relationships (marriage)?
- Should I be concerned for your safety?

Afraid or Abused

- What happens when you and your partner disagree?
- Do any situations exist in your relationships in which you have felt afraid?
- Has your partner ever threatened or abused you or your children?
- Have you been physically hurt by your partner?
- Has your partner forced you to have unwanted sexual relations?

Friends and Family (assessing degree of social support)

- If you have been hurt, are your friends or family aware of it?
- Do you think you could tell them if it did happen?
- Would they be able to give you support?

Emergency Plan

- Do you have a safe place to go and the resources you (and your children) need in an emergency?
- If you are in danger now, would you like help in locating a shelter?
- Do you have a plan for escape?

- Would you like to talk with a social worker, counselor, or physician to develop an emergency plan?

Asher, ML. Asking about domestic violence: SAFE questions [letter]. JAMA 1993; 269:2367.

Neufeld, B. SAFE questions: Overcoming barriers to the detection of domestic violence. AmFam Physician 1996; 53:2575-2580.

Other suggested questions about domestic violence:

1. Do you ever feel afraid of, or threatened by, your partner?

2. Are you in a relationship in which you have been physically hurt or threatened by your partner?

3. Are you in a relationship in which you are treated badly?

4. Have you been hit or battered in the last six months or since I last saw you?

5. Has your partner ever destroyed things you cared about?

6. Has your partner ever threatened or abused your children?

7. Does your partner ever force you to engage in sex that makes you feel uncomfortable?

8. We all fight at home. What happens when you and your partner fight or disagree?

9. Has your partner ever prevented you from leaving the house, seeing friends, getting a job, or continuing your education?

10. Does your partner watch your every move? Call work or home multiple times a day? Accuse you of having affairs with everyone?

QUESTIONS <u>NOT</u> TO ASK

1. What keeps you with a person like that?

2. Do you get something out of the violence?

3. What did you do that caused him/her to hit you?

4. What could you have done to avoid or defuse the situation?

CAGE QUESTIONS

1. Have you ever felt you should **C**ut down on your drinking?
2. Have people **A**nnoyed you by criticizing your drinking?
3. Have you ever felt bad or **G**uilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (**E**ye-opener)?

When the questions were originally developed, it was stated that the existence of even one affirmative response to the four questions called for further evaluation because of the probability of alcoholism. However, one expert chose to identify alcoholism by using two or more affirmative responses; many clinical and research studies have followed this revised use of the CAGE questions.

Ewing, J. Detecting alcoholism: the CAGE questionnaire. JAMA 1984; 252: 1905-07.

WORKING EFFECTIVELY WITH A MEDICAL INTERPRETER

1. Greet both the patient and interpreter.

2. Introduce yourself to the interpreter. Encourage interpreter to interpret literally and completely. "My name is (your name). I am a medical student here at Stanford University. Please interpret all information literally and completely. It is essential that both Mr. Pt. and I understand everything that is said by each other just as it is said."

3. Introduce yourself to the patient. "My name is (your name). I am a medical student here at Stanford University. I have just introduced myself to your interpreter and asked that he/she interpret all information literally and completely [pause]. I have explained that it is essential that you and I understand everything that is said by each other just as it is said [pause]. Please be sure to ask any questions that you may have at any time or let me know if there is anything that I have not explained clearly."

4. Position seating to facilitate direct patient-provider interaction. Place your chair across from your patient's and position interpreter beside the patient.

5. Address questions to patient directly. Avoid referring to the patient as "he" or "she" and maintain eye contact.

6. Phrase questions succinctly and allow sufficient time for interpretation.

7. Maintain control of session. As appropriate, remind interpreter of need for literal and complete translation.

ORAL PRESENTATIONS CHECKLIST

Presenting the Chief Complaint and History of Present Illness

□Focusing on details of the chief complaint
□Chronology of HPI
□Pertinent positives and negatives
□Ability to focus and emphasize relevant history
□Time management
□Organization
□Flow
□Learning to minimize reliance on notes

Presenting the Physical Exam

□Proficiency with the basic physical exam
□Ability to focus and emphasize relevant exam findings
□Advanced physical exam skills (pathologic physical findings)

Presenting the Differential Diagnosis/Assessment & Plan

□Identify most likely underlying disease process
□Understanding mechanisms/pathophysiology of patient's presentation
□Generating alternative explanations for patient's presentation
□Stratifying differential diagnosis by likelihood
□Explanation of thought process

ORAL PRESENTATIONS

After interviewing a patient and taking a medical history, performing a physical exam, gathering the pertinent data (labs, radiographic studies), and formulating an assessment and plan, you will be expected to "present" the patient to other physicians. The oral case presentation serves multiple functions:

1. Rapid communication of information to other health care professionals
2. Organization and prioritization of patient data
3. Opportunity for you to serve as advocate for the patient—accurately

describing who the patient is and the presenting findings

4. An opportunity to demonstrate your thinking and hard work

Understand that the case/patient presentation is NOT a regurgitation of your medical write-up. The write-up is a legal document that acts as a "reference book" for the patient. The oral presentation is a carefully constructed, efficient, and effective verbal presentation given in real time to other health care providers that highlights the important and pertinent information. Both written and verbal presentations follow the standard case presentation template shown below. Both presentations are subject to variation according to specialty and setting (inpatient, outpatient). Both full H&P and SOAP formats are used for written and verbal presentations. Follow the general guidelines below, and you'll be on your way.

General Principles

1. Practice, Practice, Practice:
For full inpatient H & P's and outpatient initial clinic visits, you should have "spoken" (out loud or to yourself) the presentation at least once all the way through before you do it for real. And you should practice every different type of presentation – the new admission, the follow-up visit, and the "one-liner" – all of it.

2. Know the Expectations
Think before you speak. Any time you open your mouth to start an oral case presentation, you should know EXACTLY what your listeners want to hear in terms of content, style, and length. If you don't know, ask. You can ask the resident, intern, and other students who have done the rotation. You can review charts and listen to others on the team as they present. Examples of things you should know *before* you present:

a) Do you want the full H&P? How long do you want the presentation?
b) Do you want all the labs or just the abnormal ones?
c) Should I tell you all of the physical exam or just the pertinent

findings?

d) Would you like the medication doses or just the medications?
e) Should I state all the ROS or just the pertinent negatives and positives?

3. Speak efficiently and confidently. Avoid "editorializing."

By practicing your presentations, you will eliminate the usual "uhhs" and "umms," but also try to avoid "editorializing" during your presentation. Just state the objective information clearly, concisely, and confidently.

Example: Do say: "On cardiac exam, there is a regular rate and rhythm with a 2 out of 6 early systolic murmur at the left sternal border."

Example: Don't say: "I heard a sound there and the intern thought it was a rub and then I didn't hear it later but I'm not really sure."

4. Present in an organized fashion, using the standard order of the H&P format:

A. (CC) Chief Complaint
B. (HPI) History of Present Illness
C. (PMH) Past Medical History
D. (MEDS) Medications
E. (ALL) Med Allergies
F. (SH) Personal and Social History
G. (FH) Family History
H. (ROS) Review of Systems
I. Physical Examination
J. Laboratory data
K. Summary statement (also called impression)
L. Problem List –with assessment and plan for each problem

SAMPLE REPORT OF A PHYSICAL EXAMINATION

MS. JOAN FORBES (20 YEARS OLD):

General appearance: an acutely ill woman shivering in bed covered by blankets

Vital signs: blood pressure: 150/90 RA supine; **ventricular rate:** 104/min; **respiratory rate:** 20/min; **temperature:** 38 degrees C orally

Weight: 60.5 kg **Height:** 64 in (1.62 m)

Skin: warm and diaphoretic; diffuse erythema, most prominent on thorax and abdomen

Lymph nodes: 2-3cm firm, tender, moveable right and left submandibular nodes

Head: no abnormalities

Eyes: conjunctival erythema without exudate; pupils and extraocular movements are normal; retinas show normal optic discs and retinal vessels

Ears, Nose, Throat (ENT): pharynx is markedly edematous and erythematous (4+); palatine tonsils are enlarged with purulent areas present on the surface

Mouth: normal

Neck: supple without rigidity; thyroid is barely palpable estimated at 30 grams

Breasts and Axillae: no masses; no lymph nodes are palpable

Heart: apical impulse in 4th L intercostal space 7cm from midsternal line; 2/6 high-pitched ejection systolic murmur at left sternal border, third left intercostal space, radiating to neck

Lungs: normal expansion and fremitus; resonance to percussion with vesicular breath sounds

Abdomen: no tenderness; liver 7cm span in R midclavicular line; spleen descends 1cm on deep inspiration

Pelvic examination: to be performed when patient is less ill ("deferred")

Limbs: confluent erythema as noted above; joints are normal; no edema

Peripheral vessels: all bounding and full

	Fem	Pop	DP	PT
R	2+	2+	2+	2+
L	2+	2+	2+	2+

Neurological examination: some confusion regarding today's date, otherwise completely normal

PHYSICAL EXAMINATION SCALES

Heart Murmurs – Intensity Scale.

Systolic Murmurs are graded on a I-VI scale.
Diastolic Murmurs are graded on a I-IV scale

Grade I	Barely audible in a quiet room
Grade II	Quiet, but clearly audible
Grade III	Loud
Grade IV	Loud and associated with a thrill
Grade V	Stethoscope does not need to be complete contact with chest wall to be heard
Grade VI	Audible without the stethoscope

Peripheral Pulses – Amplitude Scale

0 Absent
1 Palpable, but diminished
2 Normal

(Note: There is an infrequently used alternative to this scale which grades 1-4+)

Deep Tendon Reflex (DTR) Scale

0 Absent
1 Present, but with reduced briskness
2 Normal
3 Increased
4 Significantly increased and pathological, often with clonus

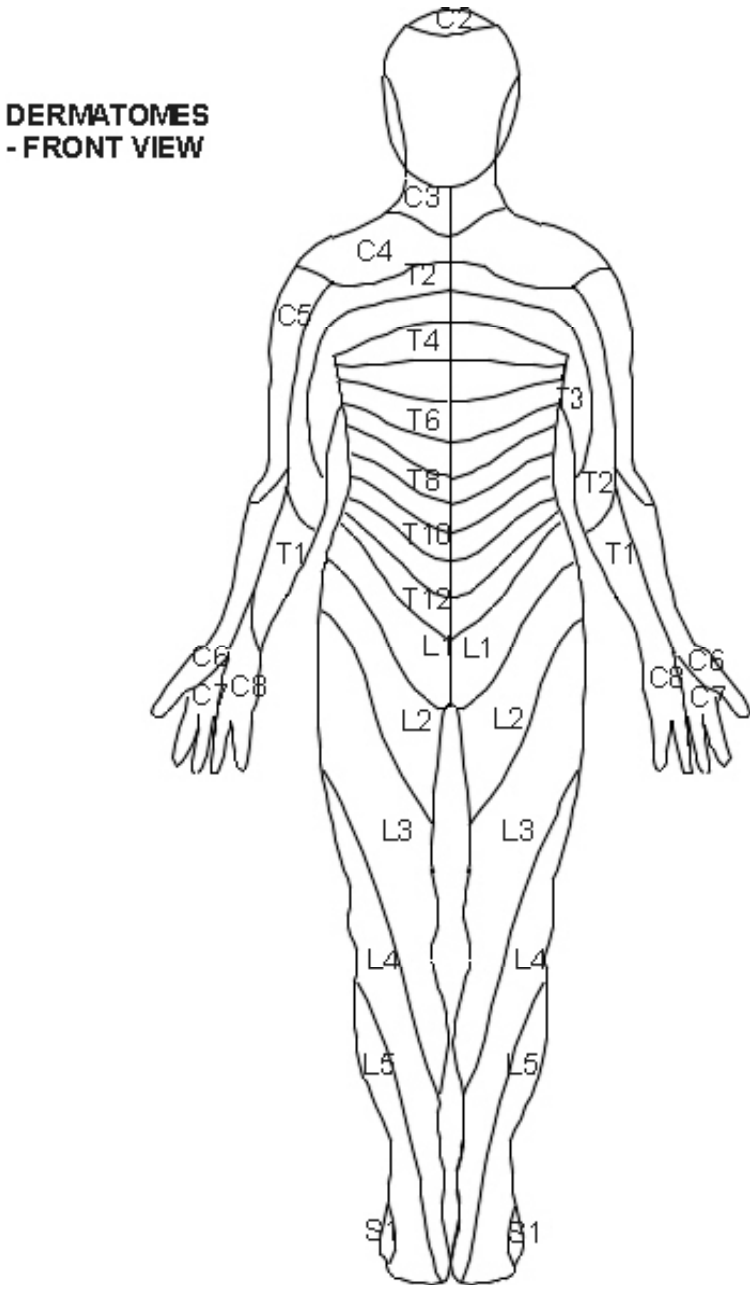
Muscle Strength Scale

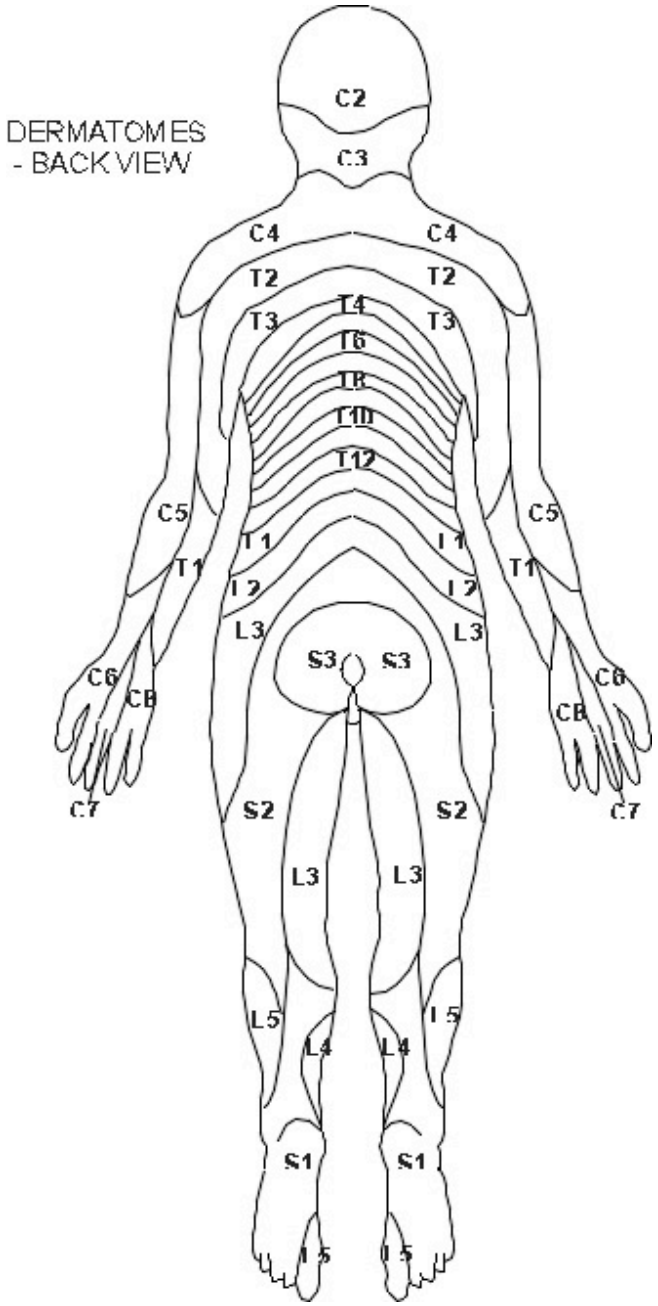
0 No trace of movement
1 A flicker of muscle contraction
2 Some movement around a joint, but not against gravity
3 Able to move against gravity
4 Able to move against resistance (sometimes divided into 4-, 4, and 4+)
5 Full strength

Pitting Edema Scale

Although edema is commonly graded 1 to 4+, there is no published standardization of this scale, and in the interest of precision, edema should always be described instead of assigned an arbitrary number.

DERMATOMES


DERMATOMES
- FRONT VIEW
C2
C3
C4
C5
T2
T4
T3
T6
T8
T10
T12
T1
L1
C6
C7
C8
L2
L3
L4
L5
S1


DERMATOMES
- BACK VIEW
C2
C3
C4
T2
T4
T3
T6
T8
T10
T12
C5
T1
L1
L2
L3
S3
C6
C8
C7
S2
L4
L5
S1

MINI-MENTAL STATE EXAMINATION (MMSE)
(Also called the Cognitive Mental Status Exam)

Make the patient comfortable, establish rapport, praise success, and avoid pressing for answers. Do initial and serial measurements.

Orientation:
--What is the (year)(season)(date)(day)(month)? <5 pts>
-- Where are we?(state)(county)(town)(hospital)(floor)? <5 pts>

Registration: Name three unrelated objects. One second to say each. Ask patient for all three, one point for each. Repeat until patient learns all three. Record number of trials. _____.<3 pts>

Attention and Calculation: Serial 7's. One point for each correct. Stop after five answers OR Spell "WORLD" backwards: <5 pts>

Recall: Ask for three objects above. One point for each correct.<3 pts>

Language: Naming: pencil and watch. Show each separately. <2 pts>

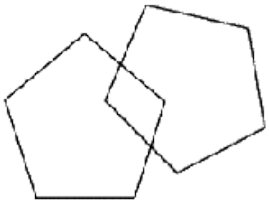
Repetition: Repeat the following, "No ifs ands or buts." <1 pt>

Follow a three-stage command: "Take paper in your right hand, fold it in half and put it on the floor." One point for each part correctly done. <3 pts>

Read and obey the following: "CLOSE YOUR EYES." <1 pt>

Write a sentence: Must contain a subject and a verb and be sensible. <1 pt>

Copying: Draw intersecting pentagons, each side one inch. Ask patient to copy. All 10 angles must be present and two must intersect. <1 pt>



A score of ≤ 20 is an indicator of cognitive impairment.

Folstein MF, Folstein, SE and McHugh PR (1975) Mini-Mental State: A practical method for grading the state of patients for the clinician, Journal of Psychiatric Research, 12: 189-198.

PHYSICAL EXAMINATION CHECKLIST

**Wash Hands **

	Done	Inadequately Done	Not Done	Comments
Vital Signs				

1. Blood Pressure
• Wrap cuff on bare arm 2-3 cm above antecubital fossa
• By **palpation:**
  ○ Palpate radial artery, inflate cuff to 70 mmHg, then increase in 10 mmHg increments to 30 mmHg above point where radial pulse disappears. Deflate slowly until pulse returns; this is the approximate systolic pressure.
• By **auscultation:**
  ○ Place bell lightly in antecubital fossa, over brachial artery.
  ○ Inflate BP to 20-30 mmHg above systolic pressure as determined by palpation.
  ○ Auscultate over brachial artery while deflating cuff at rate of 2 mmHg/second.
  ○ First faint tapping (Phase I Korotkoff) = systolic pressure
  ○ Disappearance of sound (Phase V Korotkoff) = diastolic pressure
• Take blood pressure in both arms if abnormal				

2. Pulse: Palpate radial pulse at wrist • Count the number of beats in 15 seconds and multiply by 4 • Note the rhythm of pulse: irregular or regular				
3. Respiratory Rate: Observe patient breathing for a minute and count respirations.				
4. Temperature: Measure by oral, tympanic, rectal, or temporal thermometer.				
5. Height and Weight: Recognize need for height and weight and measure properly. (If scale is unavailable, student may request information from the patient).				

Head, Eyes, Ears, Nose, Throat				
1. Head				
• Inspect size and shape of head and scalp • Palpate scalp and skull for asymmetry, masses, signs of trauma				
2. Face				
• Inspect for symmetry and lesions • Palpate body prominences, parotid glands, and TMJ • Palpate / percuss paranasal sinuses for tenderness: above eyes (frontal), over malar eminences (maxillary)				
Cranial Nerve VII (Facial). Muscles of face (raise eyebrows, show teeth, smile, frown, close eyes) taste ant. 2/3 tongue (not necessary to test)				

3. Eyes				
Inspect • Eyelids • Lashes • Bulbar / palpebral conjunctiva • Cornea • Anterior chamber • Iris				
Cranial Nerve II (Optic). Vision (Acuity, Fields). Assess visual acuity with Snellen card at appropriate distance (with corrective lenses) one eye at a time, then with both eyes. Assess visual fields by confrontation.				
Obtain **Pupillary Light Reflex**: Ask patient to look into distance. Shine light obliquely into each pupil in turn. Note direct and consensual reaction.				
Pupillary Accommodation: Ask patient to fix gaze on distant object. Observing eyes, ask patient to quickly focus on nearer object, i.e., examiner's finger.				
Extraocular Movements (Cranial Nerves III, IV, VI Oculomotor, Trochlear and Abducens.) Extraocular muscles (EOM), lid movement, pupillary reaction. • Stand 2-3' in front of patient. Have patient look at finger. Move finger slowly to extreme position of each of six cardinal fields of gaze, making a wide "H" in the air.				
Nystagmus: Check with pausing at end point of upward and lateral gaze.				
Ophthalmoscopic Exam • Darken room. Ask patient to fix eyes on a point. • Start ophthalmoscope at 0 diopters. • Starting about 15" from patient and 15° lateral to patient's line of vision, shine light on patient's pupil and move slowly towards patient. • Examine for red reflex; lens for opacities. • Focus ophthalmoscope and examine retina systematically - vessels, disc, macula.				
4. Ears				
• Inspect auricle and mastoid • Palpate pinna, tragus for tenderness • Percuss mastoid				
Cranial Nerve VIII (Vestibulocochlear). Assess hearing one ear at a time using 512 Hz tuning fork, watch, or finger rubbing				
Otoscopic Examination: Grasp top of pinna and pull up and back gently; support hand; inspect external auditory canals, tympanic membranes and middle ear structures visualized through TMs.				
Weber - Place 512 Hz vibrating tuning fork in middle of patient's head and ask which ear hears the sound louder.				
Rinne - Place 512 Hz vibrating tuning fork on mastoid; ask patient to indicate when patient no longer hears sound; then hold vibrating end of fork near ear. (Do each ear). Compare bone to air ratio.				
Perform pneumatic otoscopy.				
5. Nose				
• Inspect external nose. Check patency of nares. • Inspect nares, septum, nasal cavities - ask patient to look straight ahead; use nasal speculum or otoscope with proper tip.				

Cranial Nerve I (Olfactory). Smell – Verify patency of nasal passages. Occlude one nostril while testing the other; test each side individually (vanilla, cloves, coffee…)				

6. Mouth and Throat				
Inspect (use tongue blade as needed) • Lips • Buccal mucosa • Tongue • Floor of mouth • Uvula				
Inspect teeth and gums for caries and periodontal disease.				
Cranial Nerves IX, X (Glossopharyngeal, Vagus). Phonation (say "AH"), elevate palate, gag, swallowing, taste posterior tongue (not necessary to test).				
Cranial Nerve XII (Hypoglossal). Stick out tongue - deviation, atrophy.				
Palpate parotid and submandibular glands, salivary ducts (Stenson's from parotid and Wharton's from submandibular).				
Palpate base of tongue, sublingual, and sub-mental region (remember to glove).				
Cranial Nerve V (Trigeminal). Muscles of mastication, facial sensation. Sensory – ophthalmic, maxillary, mandibular divisions.				
Cranial Nerve XI (Spinal Accessory). Sternocleidomastoid (turn head) and trapezius (shrug shoulders) muscles.				

Neck: Lymph, Neurological, Musculoskeletal

1. Neck (Anterior)

Inspect: • For symmetry. • Trachea in midline. • Thyroid: Ask patient to swallow and observe for thyroid enlargement (offer glass of water if needed).				
Palpate: • Laryngeal framework: hyoid, thyroid, cricoid, and tracheal cartilages • Anterior border of sternocleidomastoid muscle to delineate lymph nodes in anterior and posterior cervical triangles and palpate supraclavicular lymph node areas • Thyroid: Standing behind patient, ask patient to slightly flex head; locate thyroid below inferior border of cricoid; palpate lobes using thumb and second and third fingers; ask patient to swallow (offer a glass of water if needed).				
Neck, Range of Motion: Ask patient to touch chin to chest (flexion), chin to each shoulder (rotation), ear to corresponding shoulder (lateral flexion), and bend head back (extension) (can be done as part of MSK exam).				

Pulmonary

1. Chest Posterior

Inspect • With patient seated, observe respiratory effort and look for presence / absence of distress (use of accessory muscles, nasal flaring, grunting). • Observe shape of chest and symmetry of chest movement.				
Palpate: • Confirm trachea midline position. • Place hands on posterior chest to confirm equal expansion.				
Tactile fremitus: Ask patient to say "99" and palpate over posterior and lateral chest using ball of hand or ulnar aspects of hands. (if abnormal / asymmetric breath sounds are present).				
Percuss: • Posterior chest, at each level from apices to bases comparing sides. • **Spine and costovertebral angles** for tenderness (can be done here or with abdominal or back exam). • **Diaphragmatic excursion (if atelectasis or diaphragmatic paralysis is suspected)** o Ask patient to exhale and hold. Percuss on back in intercostal spaces downward until sound changes from resonant to dull. Mark this spot. o Ask patient to inhale and hold. Percuss on back in intercostal spaces downward until sound changes from resonant to dull. Mark this spot. o Measure the distance between two spots; normal is 3-6 cm.				
Auscultate: • Apply diaphragm firmly to bare skin, listening to chest comparing right and left at each level. Listen in 14 places (6 places posteriorly, 4 places bilaterally along mid-axillary line (L - lingula; R - RML), and 4 places anteriorly (apices and bases). • **Egophony:** ("E" to "A" change) Ask the patient to say "E" and auscultate over suspected consolidation and "E" would sound like "A." Usually done if history or exam suggests pulmonary concerns. May demonstrate if time permits. • **Whispered pectoriloquy:** Asks the patient to whisper "99" or "1-2-3"; auscultate both sides. Normally can faintly hear whisper; abnormal if whispered sounds are louder and clearer. Usually done if history or exam suggests pulmonary concerns. May demonstrate if time permits.				
2. Chest Anterior				
[If posterior chest done, including apices, then anterior is optional is time limited].				
Inspect: • With patient seated, observe respiratory effort and look for presence / absence of distress. • Observe shape of chest and symmetry of chest movement.				
Palpate: • Bony structures for tenderness • Place hands on anterior chest to confirm equal expansion (optional) • **Tactile fremitus** (as done in posterior chest)				
Percuss: • Anterior chest at each level from apices to bases comparing sides				
Ausculate: • Apply diaphragm firmly to bare skin, listening to chest comparing right and left at each level • **Egophony:** Ask patient to say "eeee....". • **Whispered pectoriloquy:** Ask patient to whisper "99" or"1-2-3"				

Cardiovascular				
Inspect and palpate from patient's right side: With patient at 30-45º identify highest pulsations of internal jugular vein (or external jugular vein column). JVP is 5 cm added to the vertical distance of the sternal angle to the internal (or external jugular venous pulsations). • Palpate carotid pulses on each side, then auscultate each (while patient holds breath). • Examine the patient in the supine and in the partial left lateral decubitus position (45º to the left side). • Inspect then palpate the precordium for the PMI and lifts.				
Auscultate heart valves Listen at four basic locations (and associated valves) using the diaphragm on bare skin: • Apex (mitral) • Lower left sternal border (tricuspid) • Left 2nd intercostal space (pulmonic) • Right 2nd intercostal space (aortic)				
Auscultate apex with bell of stethoscope.				
Auscultate the femoral arteries.				
Auscultate for gallops or mitral murmurs. Instruct patient to roll onto left side; auscultate mitral apex with bell lightly pressed.				
Auscultate for aortic murmurs. With patient leaning forward, place diaphragm over the left sternal border and apex, instructing the patient to inhale deeply, exhale and then hold his/her breath. Instruct patient to breathe when necessary.				
Palpate peripheral pulses • Brachial • Radial • Popliteal • Dorsalis pedis • Posterior tibial				
Check for edema by pressing on skin along tibia near ankles.				

Abdomen				
Inspect: Abdominal wall and flanks for contour, masses, venous pattern, and movements.				
Auscultate *prior* to palpation or percussion • One quadrant for presence of bowel sounds. • For presence of bruits if arterial insufficiency suspected (flanks, femoral and mid-abdomen with bell).				

Percuss:
• **Liver** along right mid-clavicular line to determine liver span (normal 6-12 cm).
• **Splenic borders** in lowest intercostal space in left anterior axillary line at full expiration and full inspiration.
• **All four quadrants**, including above symphysis pubis for bladder distention.
• Costovertebral angles for tenderness (can be done here or with pulmonary or back exam).
• For **shifting dullness** (done if history or exam suggestive of ascites)
  ○ Percuss circumferentially on the abdomen; determine transition points between resonant and dull sounds on each side. Mark these spots.
  ○ Roll patient on side; percuss as above to determine if these transition points have shifted.
• For **fluid wave** (done if history or exam suggestive of ascites)
  ○ Have assistant place edge of hand on patient's mid-abdomen.
  ○ Palpate gently at flank with one hand while quickly thumping the other flank with the other hand. Sensing a shock wave with palpating hand is indicative of ascites.				

Palpate: • **All four quadrants** for tenderness, mass, or rigidity; first superficial and then deep • **Liver** for enlargement, tenderness, consistency • **Spleen** using bimanual technique in supine position (in right lateral decubitus position if having difficulty) • **Kidneys** using bimanual technique • Inguinal areas (can be done here or with pelvic exam) • **Aorta** to estimate size (average 2.5 cm, normal not >3 cm)				

Musculoskeletal Exam Checklist				
[All maneuvers for pathology are optional: anterior/posterior drawer test, Lachmann's, rotator cuff, shoulder impingement/tear, carpel tunnel, bulge sign/knee effusion, McMurray's, etc.]				
Inspect for symmetry, deformity, redness, swelling, atrophy, or skin changes • Head (scalp, TMJ, neck) • Upper extremity (shoulders, arms, elbows, wrists, hands, fingers) • Spine (cervical, thoracic, lumbar, sacral, coccygeal) • Lower extremity (hips, legs, knees, lower legs, ankles, feet, toes)				
Palpate for tenderness, crepitus, warmth, or effusions • TMJ • Shoulder (sternoclavicular, clavicular, long head of biceps tendon) • Elbow (olecranon bursa) • Hand (MCP) • Fingers (PIP, DIP) • Spine (spinous process alignment and symmetry of spine) • Knee (tibial plateau) • Ankle (medial, lateral malleoli, Achilles tendon) • Foot (plantar fascia) • Toes				

Assess range of motion (the number in parentheses indicates the degree of expected joint motion) F = flexion; E = extension; Abd = abduction; Add = adduction, IR = internal rotation, ER = external rotation • **Neck** - F (45); E (55); R&L Lateral Bending (40); R&L Rotation (70) • **Shoulders** - F (180); E (50); IR (90); ER (90); Abd (180), Add (50) • **Elbows** - F (160); E (180); Pronation and Supination with elbows flexed at 90 degrees (90) • **Wrists** - F (90); E (30); Radial deviation (20); Ulnar deviation (55) • **Fingers** - F; E; Abd; Add; thumb opposition • **Back** - F (75); E (30); R&L Lateral Bending (35); R&L Rotation (30) • **Hips** - Flexion with a straight leg (90); Extension with a straight leg (30); Abd (45); Add (30); IR (40); ER (45) • **Knees** - F (130); E (15) • **Ankles** - Dorsiflexion (20); Plantar flexion (45); Inversion (30); Eversion (20); Adduction (20); Abduction (10) • **Toes** - F; E (30)				
Special Testing (related to patient complaint)				
Neck pain • Rotation of neck for sternocleidomastoid strain • Ear to shoulder lateral flexion for muscle strain with contralateral pain • C-spine impingement with ipsilateral pain • Spurling's maneuver (extend, rotate, bend neck laterally) with reproducible radicular pain on affected side in compression				
Shoulder pain • Rotator cuff evaluation - "empty can sign" • Internal / external rotation of shoulder with elbows flexed to 90 degrees • Hawkin's Impingement sign • Drop arm sign				
Elbow pain • Lateral epicondylitis (tennis elbow) with palpation of lateral epicondyle or with extension at wrist				
Hand / wrist pain • Anatomical snuff box tenderness in scaphoid fracture (fall on outstretched hand injury) • Finkelstein's test • Tinel's sign, Phalen's sign (carpal tunnel)				
Spine • Check spine for scoliosis - have patient slowly bend forward and touch toes while inspecting spine. • Perform straight leg raise (done if history or exam suggest back concerns. May demonstrate if time permits)				
Knee pain • Bulge sign (minor effusions) • Ballotment sign (major effusions) • Iliotibial band • Prepatellar bursa swelling • Pain with valgus stress (MCL injury) • Pain with varus stress (LCL injury) • Anterior drawer sign (ACL injury) • Lachman test (ACL injury) • McMurray sign with locking (meniscal tear)				
Ankle • Achilles tendon rupture: absence of plantar flexion with squeezing calf, bruising of heel or calf.				

Foot pain • Plantar fasciitis with pain on palpation of plantar fascia or foot dorsiflexion.				

Neurological Exam Checklist

Mental Status

• Assess level of alertness; orientation to person, place, and time; appropriateness of responses. • Speech: grossly normal or abnormal, dysarthria versus aphasia.				

Cranial Nerves (can be done in HEENT)

• **CN I (Olfactory).** Smell – Verify patency of nasal passages. Occlude one nostril while testing the other; test each side individually (vanilla, cloves, coffee…) • **CN II (Optic).** Vision (Acuity, Fields). Assess visual acuity with Snellen card at appropriate distance (with corrective lenses) one eye at a time, then with both eyes. Assess visual fields by confrontation • **CN III, IV, VI Oculomotor, Trochlear and Abducens.)** Extraocular muscles (EOM), lid movement, pupillary reaction ○ Stand 2-3' in front of patient. Have patient look at finger. Move finger slowly to extreme position of each of six cardinal fields of gaze, making a wide "H" in the air. • **CN V (Trigeminal).** Muscles of mastication, facial sensation. Assess corneal reflex (wisp of cotton on cornea) - optional. Sharp/dull on forehead, cheek, and jaw. Open mouth and clench teeth. • **CN VII (Facial).** Muscles of face (raise eyebrows, show teeth, smile, frown, close eyes) taste ant. 2/3 tongue • **CN VIII (Vestibulocochlear).** Assess hearing one ear at a time using 512 Hz tuning fork, watch, or finger rubbing. • **CN IX, X (Glossopharyngeal, Vagus).** Phonation (say "AH"), elevate palate, gag, swallowing, taste posterior tongue • **CN XI (Spinal Accessory).** Sternocleidomastoid (turn head) and trapezius (shrug shoulders) muscles • **CN XII (Hypoglossal).** Stick out tongue - deviation, atrophy				

Motor System				

Muscle strength, bulk, tone (May be incorporated into musculoskeletal exam)
• **Fingers** - Abd, (C8, TI; ulnar)
• **Thumb** - Opposition, (C8, TI; median)
• **Grasp**
• **Wrist** - E (C6,7,8 Radial)
• **Elbow** - E (C6,7,8) F (C5,6)
• **Shoulder** - Abd; Add
• **Hips** - F (L2,3,4); Abd (L4,5, SI), Add (L2,3,4), E
• **Knees** - E (L2,3,4); F (L4,5, SI,2)
• **Ankles** –
  ○ **Dorsiflexion** (Primarily L4,5) (heel-walking);
  ○ **Plantar flexion** (Primarily SI) (toe-walking)				

Sensory System				
Assess **pain sensation** with sharp broken cotton swab; compare with cotton-tipped end of swab and elicit "sharp or dull" response.				
Ask patient to respond to light touch with wisp of cotton.				
Assess **vibratory sense** with 128 Hz tuning fork • Tap tuning fork • Place on distal interphalangeal joint of finger or toe • If vibration cannot be differentiated from pressure move up extremity proximally (wrist, elbow, medial malleolus, patella, anterior superior ilial spine, clavicles, spinous processes)				
Assess **proprioception** (position sense) • Hold big toe away from other toes beween thumb and index finger • Demonstrate up and down for patient clearly • Elicit up or down response multiple times bilaterally with patient's eyes closed				
Coordination and fine motor skills				
Assess **coordination** and **fine motor skills** • Rapid alternating movements • Finger-nose-finger (point-to-point) with patient's arm extended • Heel to shin • Romberg ○ Have patient stand with feet together and arms at side, with eyes open and closed • **Gait** – casual, tandem, toes then heels				
Reflexes				
Proper use of tuning forks and reflex hammer.				
Deep tendon reflexes • Upper extremities: biceps (C5, 6), brachioradialis (C5, 6), triceps (C6, 7, 8) • Lower extremities: patellar (L2, 3, 4), Achilles (S1, S2)				
Superficial reflexes • Abdominal (T-8-10 above); (T-10-12 below) • Cremasteric				
Assess Babinski.				

PEDIATRIC DEVELOPMENTAL MILESTONES

Age	3 mo.	6 mo.	9 mo.	12 mo.	15 mo.	18 mo.	24 mo.	36 mo.
Gross Motor	Head up prone Roll front to back	Sits	Crawls / Locomotion	Walks	Runs	Up stairs Not alternating feet. RED FLAG: if not walking by 18 mo.	Up stairs Alternates Feet	Ride Tri – Cycle (3-Wheeler) Stacks 3 blocks
Personal / Social	Smiles Regards own hand	Works for toy Feeds self	Waves “bye – bye” Indicates desires Plays “Pat-a-cake”	Imitates activities Plays ball with examiner	Helps in house	Feeds doll Removes clothes	Brushes teeth with help Washes hands	Names friend Puts on clothes
Language	Coos vowels	Babbles consonants	Mama / Dada, non-specific	Mama / Dada, specific 1 word follows 1 step commands	Variable	10 words RED FLAG If < 10 words By 18 mo.	2 word Phrases Follows 2 step command Understood by others 2 out of 4 times	3 word Phrases 300 words Understood 3 out of 4 times

HEADSS

A Psychosocial Interview for Adolescents

	Example Questions
H – Home & Environment	How are things going at home? Who lives at home with you? Are there any new people living in your home? How do you get along with other people in your house? What kinds of things do you argue about? How much time do you spend at home?
E – Education & Employment	Where do you go to school? What kinds of grades do you get? Have they changed recently? What is your best class? Your worst? Do you need extra help in school? How much school have you missed this year? Do you work after school or on the weekends?
A - Activities	What do you do for fun? What activities are you involved in during and after school? Do you do any regular sports or exercise? Who do you hang out with outside of school?
D - Drugs	When you go out with your friends or to a party, do the people that you hang out with smoke, drink, or use drugs? Do you? Does anyone in your family drink, smoke, or use drugs? If so, how do you feel about this? Have you or your friends ever driven after drinking?
S - Sexuality	Have you ever been in a relationship? When? How was it? Are you sexually active? Or have you ever had sex? How many sexual partners have you had? Do you use condoms or another form of contraception? If so, how often? Have you ever wondered if you are gay/lesbian, bisexual, or transgendered? Do you know how to protect yourself from sexually transmitted infections and pregnancy? If someone abused you or took advantage of you, who would you talk to about this? Do you think it would be a good idea to be tested for a sexually transmitted infection?
S – Suicide/ Depression	Do you ever feel really depressed? How long does it last? Have you ever felt helpless, or that your life was hopeless? Have you ever thought about hurting yourself? Do you know anyone who has ever hurt themselves or attempted suicide?

FACES PAIN SCALE – REVISED (FPS-R)

In the following instructions, say "hurt" or "pain," whichever seems right for a particular child.

"These faces show how much something can hurt. This face *[point to left-most face]* **shows no pain. The faces show more and more pain** *[point to each from left to right]* **up to this one** *[point to right-most face]* – **it shows very much pain. Point to the face that shows how much you hurt** [right now]**."**

*Score the chosen face **0**, **2**, **4**, **6**, **8**, or **10**, counting left to right, so '**0**' = 'no pain' and '**10**' = 'very much pain.' Do not use words like 'happy' and 'sad'. This scale is intended to measure how children feel inside, not how their face looks.*

Hicks CL, von Baeyer CL, Spafford P, van Korlaar I, Goodenough B. The Faces Pain Scale – Revised: Toward a common metric in pediatric pain measurement. *Pain* 2001;93:173-183. Scale adapted from: Bieri D, Reeve R, Champion GD, Addicoat L, Ziegler J. The Faces Pain Scale for the self-assessment of the severity of pain experienced by children: Development, initial validation and preliminary investigation for ratio scale properties. *Pain* 1990;41:139-150.

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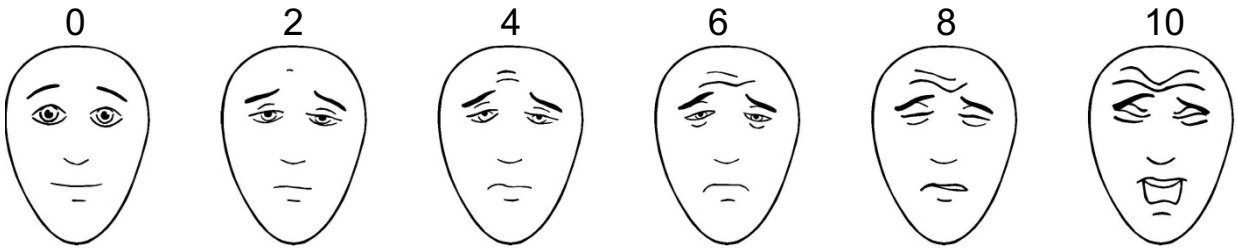

SOAP NOTE

Subjective

- Updated History with any changes
- How pt. feels/understands problems
- Adherence to plans
- Side effects

Objective---chart in outline format

- Focused PE
- Vital signs—if not noted
- Lab or other diagnostic studies

Impression statement – ex: In summary, this is a 45-year-old woman presenting for follow up of DM and htn, with symptoms of cough x 3 days and lung exam with left lower lobe crackles.

Assessment

- Status of problem
- Further DDx. With clinical reasoning—e.g. in a pt. initially w/cough –it may now be confirmed as pneumonia

Plan

- Dx: studies to be ordered to assess this problem
- Rx: Medications or treatment for this problem
- Pt. Ed.: Information discussed with the patient/family about the problem and the plans—including possible side effects, and the patient's understanding of the problem

SAMPLE SOAP NOTE

ID: 35 yo history of heartburn for 2 years here for follow up

S: Patient states his/her heartburn is worse at night and after meals for the past 2 months. Patient had coughing episodes for 2-3 months at night and midsternal chest pain awakening from sleep. Prior to the past 2 months, raising the HOB 45 degrees, dietary changes, and taking Tagamet helped but no longer. The discomfort is generally a midsternal burning that lasts for ½ hour.

ROS: + stress the past 2 months due to job, late nights at work. + increased caffeine during the day, + increased ETOH use at parties. Less time for exercise.

Meds: Tagamet prn

O: VS t 98.6 BP 110/60 P 70 RR 14
Well appearing, slightly anxious appearing
Lungs: B/l CTA
CV: RRR, nl S1 and S2, no M
ABD: ND, NT, NABS, no HSM
Ext: pulses 2+ symm, no edema

Data: H. pylori test negative.

Imp: 35 yo with 2 yr h/o heartburn now with progressively worsening midsternal heartburn / chest discomfort X 2 months, and unrevealing exam, neg H. pylori.

A/P:
1. midsternal chest pain/burning: Given prior h/o heartburn, new stressors (work, caffeine, etoh), and lifestyle triggers (lack of exercise, poor diet), the most likely cause is GERD. Cardiac causes are unlikely given lack of cardiac risk factors, lack of association with exertion. More extensive gi causes such as ulcer / esophagitis / gastritis may be of concern if her symptoms do not improve with treatment.

- Tx: Prilosec 20 mg po a day
  Dietary changes (small, frequent meals), lifestyle changes (minimize caffeine, alcohol, HOB at 45 degrees, increase exercise)
- Dx: If symptoms do not improve with above 8 week trial, consider gi consult, endoscopy
- Pt Ed: Prilosec side effects discussed. Patient pamphlet on GERD/lifestyle changes given.

2. Health care maintenance: Vaccinations, safety, and counseling up to date.
f/u 3 months

SOAP Presentation

When you're presenting in SOAP format, this presentation is an update from the most recent encounter. For a patient who has been admitted to the hospital, this could reflect an update of the last 24 hours.

S = Subjective → History, patient's description or perception of how he / she feels, changes in symptoms since the last visit, reactions to medications.

O = Objective → Pertinent vital signs, physical exam, lab data, tests

Impression or summary statement

A = Assessment→An assessment of each problem on your problem list modified to include any new developments.

P = Plan→As above. Divide plan into diagnostics, and therapeutics, and patient education.

The key to presenting in different situations is to ALWAYS use the same format, but add and delete the parts of the information you've gathered that are not DIRECTLY pertinent to patient's current presentation. Just imagine the components your audience would NEED to hear to be able to figure out what is going on with the patient. Be flexible and understand that the general format will change according to subspecialty and setting (inpatient, outpatient, urgent care) so you need to ask / observe others initially.

COMMON MEDICAL ABBREVIATIONS

BS	bowel sounds
CN	cranial nerve
CTA	clear to auscultation
DTR	deep tendon reflex
HEENT	head, eyes, ears, nose throat
JVP	jugular venous pressure
MCL	midclavicular line
MCP	metacarpal phalangeal
DIP	distal interphalangeal
PIP	proximal interphalangeal
NAD	no apparent distress
NKA	no known allergies
NKDA	no known drug allergies
PERRLA	pupils equally round and reactive to light and accommodation
RRR	regular rate and rhythm
RLQ	right lower quadrant
RUQ	right upper quadrant
R	right
L	left
B or B/L	bilateral
VS	vital signs
NTG	nitroglycerin
DOE	dyspnea on exertion
PND	paroxysmal nocturnal dyspnea
SOB	shortness of breath
BPH	benign prostatic hypertrophy
CA	cancer
CABG	coronary artery bypass graft (“cabbage”)
CAD	coronary artery disease
CHF	congestive heart failure
COPD	chronic obstructive pulmonary disease
DM	diabetes mellitus
HA	headache
HTN	hypertension
Ψ	Psychiatry

h/o	history of
y/o	year old
r/o	rule out
s/p	status post (something that happened in the past)
c	with
s	without
x	except
0	none
a	before
p	after
sx	symptoms
dx	diagnosis
Rx	treatment
PTA	prior to admission
wnl	within normal limits
CXR	chest X-ray
ECG	electrocardiogram
Q day	daily
BID	twice daily
TID	3 times daily
QID	4 times daily
Q 6 hr	every 6 hours
Q am	every morning
IV	intravenously
IM	intramuscularly
PO	by mouth
PR	per rectum
SL	sublingually
GERD	gastroesophageal reflux
SLE	systemic lupus erythematosus (“lupus”)
US	ultrasound
BRBPR	bright red blood per rectum (not “burr-purr”)

"DO NOT USE" these ABBREVIATIONS

Abbreviation	*Potential Problem*	*Preferred Term*
U (for unit)	Mistaken as zero, four or cc.	Write "unit"
IU (for international unit)	Mistaken as IV (intravenous) or 10 (ten)	Write "international unit"
Q.D., Q.O.D. (Latin abbreviation for once daily and every other day)	Mistaken for each other. The period after the Q can be mistaken for an "I" and the "O" can be mistaken for "I"	Write "daily" and "every other day"
Trailing zero (X.0 mg), Lack of leading zero (.X mg)	Decimal point is missed	Never write a zero by itself after a decimal point (X mg), and always use a zero before a decimal point (0.X mg)
MS MSO_4 $MgSO_4$	Confused for one another Can mean morphine sulfate or magnesium sulfate	Write "morphine sulfate" or "magnesium sulfate
µg (for microgram)	Mistaken for mg (milligrams) resulting in one thousand-fold dosing overdose	Write "mcg"
H.S. (for half-strength or Latin abbreviation for bedtime)	Mistaken for either half-strength or hour of sleep (at bedtime) q.H.S. mistaken for every hour. All can result in a dosing error.	Write out "half-strength" or "at bedtime"
T.I.W. (for three times a week)	Mistaken for three times a day or twice weekly resulting in an overdose	Write "3 times weekly" or "three times weekly"
S.C. or S.Q. (for subcutaneous)	Mistaken as SL for sublingual, or "5 every"	Write "Sub-Q", "subQ", or "subcutaneously"
D/C (for discharge)	Interpreted as discontinue whatever medications follow (typically discharge meds).	Write "discharge"
c.c. (for cubic centimeter)	Mistaken for U (units) when poorly written.	Write "ml" for milliliters
A.S., A.D., A.U. (Latin abbreviation for left, right, or both ears) O.S., O.D., O.U. (Latin abbreviation for left, right, or both eyes)	Mistaken for each other (e.g., AS for OS, AD for OD, AU for OU, etc.)	Write: "left ear," "right ear" or "both ears;" "left eye," "right eye," or "both eyes

Source: Joint Commission on Accreditation of Healthcare Organizations (JCAHO), American Academy of Physical Medicine and Rehabilitation

SUBJECTIVE EVALUATION OF THE POST-OPERATIVE PATIENT (written by Cara Liebert, MD)
This guide is meant to review both routine questions to ask a General Surgery post-operative patient, as well as questions to screen for post-operative complications. Specific questions pertinent to sub-specialty surgery patients are also included.

Routine Daily General Surgery Post-Op Questions

What is their pain level on a scale of 0-10, with 0 being no pain and 10 being the worst pain imaginable?
Are they experiencing nausea? Emesis?

If emesis, how many times and what color? Bilious? Bloody? Coffee grounds?

Are they passing flatus?

Have they had a bowel movement?

Have they ambulated?

Have they voided (if Foley not in place)?

Have they been using incentive spirometry? What volume can they reach?
Screening/Evaluating for Post-Operative Complications

Are they experiencing any of the following?

Chest pain (screen for MI, PE)

Palpitations (screen for AFib/arrhythmia)

Shortness of breath (screen for MI, PE, PNA)

Cough (screen for PNA)

Wound drainage (screen for wound infection)

Dysuria (screen for UTI)

Calf pain (screen for DVT)

Lower extremity edema (screen for DVT)

Additional Sub-Specialty Symptom Questions

Thyroid/Parathyroid Surgery

Numbness or tingling around lips or fingertips (hypocalcemia)

Voice hoarseness (recurrent laryngeal nerve injury)

Axillary swelling (seroma or hematoma)

Arm numbness (nerve injury)

Arm weakness (nerve injury)

Slurred speech (stroke)

Mental status changes (stroke)

Weakness (stroke)

Numbness (stroke or ischemia)

Breast

Vascular Surgery

OBJECTIVE EVALUATION OF THE POST-OPERATIVE PATIENT
This guide is meant to review the objective assessment of a General Surgery post-operative patient. Specific exam findings pertinent to sub-specialty surgery patients are also included.

Vitals
Review vitals for last 24 hours, usually this is 7:00am to 6:59am. If patient was tachycardic, hypotensive, febrile, or had desaturation, note the time of the event as well as the current vital sign parameter.
Tmax= ____
(If Tmax> 38, state the time of the fever and the Tcurrent)
HR= ___ - ___
(Report as a range, rounded to nearest 10)
BP= ___ - ___/___ - ___
(Report as a range, rounded to nearest 10)
RR=
(Report only if abnormal)
O2 sat= ___ - ___ % on ___
(State if they are on RA, 2L nasal cannula, 6L nasal cannula, face mask, etc.)

Ins/Outs

Review vitals for last 24 hours, usually this is from 7:00am to 6:59am. Report as cc or L if greater than 1000cc, i.e. 30cc or 1.5L. For all drains (JP, IR, NGT, chest tubes, etc.) in addition to volume, also report the appearance (i.e. bilious, clear, serosanguinous, bloody, milky, purulent).
I/O =*(total in*) / (total out)
PO=
UOP= *total volume, also report by shift*
IV=
Emesis= *(if applicable)*
NGT= *(if applicable)*
JP drain= *(if applicable)*
IR drain = *(if applicable)*
Chest tube = *(if applicable)*
Ostomy = *(if applicable)*

Exam
GENERAL: Evaluate for general appearance, are they ill appearing? Well-appearing? Tachypneic? Somnolent?
NEURO: For General Surgery patients, evaluate if they are alert and oriented. For Trauma head-injury patients, evaluate GCS. For Vascular Surgery patients, screen for stroke (cranial nerves, motor, sensory).
CV: Evaluate for tachycardia and murmur. For Cardiothoracic patients, evaluate sternotomy/thoracotomy incisions.
PULMONARY: Evaluate for wheezes, crackles, atelectasis. Bibasilar crackles are indicative of atelectasis. Diffuse rales are indicative of pulmonary edema. Rhonchi may be indicative of PNA. If chest tube is in place, note whether it is to suction or waterseal and evaluate for air leak.
ABDOMEN: Evaluate the wound, looking at dressing and drainage. If wound is not dressed with sterile dressing, evaluate for erythema, swelling, induration, purulent drainage (signs of wound infection). Evaluate if abdomen is soft, distended, tender. Post-surgical patients will be appropriately tender over incision, but inappropriate tenderness may indicate a post-surgical complication. Also evaluate drain sites and appearance of drainage. If drainage appears different in quality than on previous exam, this is very important. If patient has an ostomy, note its appearance and whether it is pink, patent, protruding, and productive.
EXTREMITIES: Evaluate distal pulses. Evaluate for edema, particular asymmetric edema and/or calf tenderness, which can be indicative of a DVT. If patient is a Vascular Surgery patient, do a thorough pulse exam (all peripheral pulses) and note whether they are 2+, 1+ or if non-palpable, if they are a biphasic Doppler or monophasic Doppler signal.

Labs (if any new results)
Report any new am labs, particularly the CBC, BMP, and INR if drawn. Report any special labs that were ordered previously that may have just resulted. Pay particular attention for Hct drop, rising WBC, electrolyte abnormalities, or rise in Cr.

Microbiology
Report any culture results, both positive, or if no growth to date (NGTD). Also report antibiotic sensitivities for positive cultures.

Imaging (if any new studies)
Any new CT reads, CXRs, etc.