The SOAP Format

The subjective-objective-assessment-plan or SOAP format was originally developed in the early 1970s in an attempt to standardize the way information in the medical record was organized and communicated. It was developed by physicians for physicians, because only physicians were allowed to write in the medical record in most US health care institutions at that time. Its use as a written communication format was adopted by other health care professionals as they increasingly began to use progress notes as an inter-professional communication tool, rather than just a record. The SOAP format is used by pharmacists primarily to communicate written patient information in the medical record.

In the SOAP format (and its many iterations), subjective information (the S in SOAP) is presented first. Subjective information is obtained verbally from the patient or caregiver and so is not directly observed or measured by the SOAP writer. Objective information (the O in SOAP) is presented next, and details data directly measured or observed by the SOAP writer or another health care professional. Information in the subjective and objective sections of a SOAP note generally do not have the headers of ID, CC, HPI, and so forth that are used in the patient H&P database. The subjective and objective information in a SOAP note should be limited to only that information which pertains directly to the assessment or recommended plan.

The assessment section (the A in SOAP) of a SOAP note communicates the critical thinking of the writer. If the writer is a physician, the assessment will be a disease state or condition diagnosis and explain why the physician thinks that the identified diagnosis, and not a different diagnosis, is correct. In a pharmacist’s SOAP note, the assessment will identify a drug-related problem (DRP), and should explain why the identified DRP needs correcting. DRPs can be roughly categorized into one of five problems:

- The patient needs a drug. This could be because the drug hasn’t been prescribed or because it has been prescribed but the patient isn’t taking it.
- The patient is not receiving the optimal drug. This includes instances where the drug being used is not appropriate (such as instances of drug duplication, allergy, or use of a medication with no apparent indication). It also includes situations where the drug being used is appropriate but another therapy may produce superior health outcomes.
- The drug dose is not optimal (e.g., too high, too low, too frequent).
- The patient is experiencing an adverse drug reaction.
- The patient is experiencing an unwanted drug interaction.

Why Write SOAP notes?

- To document and communicate medication and health-related needs between pharmacists and with other health care providers.
Other information that pharmacists will place in the assessment section is a short list of therapeutic alternatives with a brief explanation of benefits and potential problems associated with each option, and treatment goals. When written optimally, by the time the reader reaches the end of the assessment section, that reader will know exactly what is going to be recommended, and why.

If the pharmacist is asked for a specific consult or the pharmacist is trying to persuade the reader to use a particular treatment, evidence from the medical literature should be referenced. When this occurs, it is acceptable to follow the evidence provided by using a brief reference format of acceptable journal name abbreviation, year of publication, volume, and first page number.

The final section, which is the plan, identifies the actions proposed by the writer. When a physician writes a plan, he or she is indicating specific actions to be carried out by other health care providers. When a pharmacist writes a plan, it will be in a similar manner only if the pharmacist has prescriptive authority or is in an environment (such as a community pharmacy) where the pharmacist is the main health care provider. When a pharmacist makes a specific care suggestion to a primary care provider, then the section is more aptly termed a “recommendation.” Thus, pharmacists working in an interdisciplinary environment (hospital or clinic) may more often write “SOAR” notes (subjective-objective-assessment-recommendation). A pharmacist’s recommendation or plan should include:

- Drug, dose, route, frequency, and duration (when applicable).
- What will be measured to determine if the therapy is working (i.e., effective), who will measure it, and how frequently this will be done
- What will be measured to determine if the recommended drug is causing a problem (i.e., toxicity), who will measure it, and what will be done if toxicity occurs. Toxicity monitoring will usually involve different monitoring parameters than the efficacy measures.
- Specific counseling points about administration, dose, frequency of use, side effects or precautions if the writer’s purpose is to document patient counseling.
- When follow-up will occur (e.g., follow up in 3 months for repeat BP check).
- The alternatives to treatment if efficacy is not achieved or if toxicity occurs.

SOAP notes in the ambulatory care setting are often used to document patient interactions for billing purposes. In such cases it is important to include in the note the number of minutes spent on the interaction/work-up. This number is usually placed at the end of the note.

If the purpose of a note is solely to document patient education, then the initial facts can be presented under a combined S/O header. This section should contain a list of the medications discussed with the patient and any medication precautions of which the patient was specifically informed. It would also be wise to include any specific comments or questions the patient had that helped you understand the patient’s comprehension of the information and interest in his or her medication therapy. Your assessment will be how well the patient appeared to understand and be interested in the medications. Your plan will include any needed follow-up counseling or medication monitoring. A good initial statement in the patient counseling note is “Pharmacy note regarding medication information given to” and then list the people with whom you interacted (e.g., patient, patient and wife, patient and daughter).

It can be confusing for people new to writing SOAP notes whether to list medications in the S or O section. Any information you obtain from the patient about medication names, doses, frequency, adherence, or purpose will go in the S section, and it is reasonable to quote patient remarks about therapy if it helps better communicate a patient’s attitude toward or understanding of the therapy or condition. Information obtained from a medication administration record or pharmacy database will go in the O section. If you do a good job on your patient interview, and you have access to a patient’s pharmacy or medical records, then you may include medication-related information in both the S and O section of your note.

Another source of confusion for SOAP note writers is deciding which medications to list in the S and O section. Listing all the medications a patient takes lengthens a note, making it less likely that it will be
read. However, there are specific situations when it is important to list all medications. The choice of which medications to list in a SOAP note should be guided by the purpose of the SOAP note.

- If the SOAP note’s purpose is to identify a specific problem and persuade a prescriber that a therapy change is needed, then only those medications pertinent to the assessment and plan should be listed. This will keep the note short and maximize the likelihood that the note will be read by the prescriber. To be pertinent, there must be some reference to the medication in the A or P.
- If the purpose of the SOAP note is to review overall patient progress, then all current medications (prescription, non-prescription) and non-drug therapy must be listed in the note’s S or O section. Similarly, each therapy must be addressed in the A and P. In order to facilitate organization, it is traditional for pharmacists to organize the A and P by condition being treated.

Common Documentation Mistakes
Mistakes frequently made by novice SOAP note writers are

- Excluding important information (which results in an unsupported assessment statement)
- Including extraneous information (including information which doesn’t directly support the A/P results in a note that is too long)
- Identifying a disease-related rather than a drug-related issue
- Inappropriate problem prioritization
- Lack of reasoning to explain the problem or the recommendation
- Inaccurate or incomplete problem assessment, drug therapy recommendations, or monitoring plan

These elements will be evaluated in SOAP notes submitted to your instructors. Appendix 2 contains examples of student-submitted SOAP notes and information we might provide when evaluating each note. The first note is a reasonable example of a student SOAP note. The last three notes all have multiple problems with them. Read notes 2, 3 and 4 and make a list of elements that you think need to be fixed, for each note. Compare your list to the feedback given by an instructor.

Advice to SOAP writers

- Start each SOAP note by writing the date and time (military time) on the top, left-hand corner of the note.
- Briefly identify in a header that the note is from pharmacy, and its purpose. For example: “Pharmacy note regarding anticoagulation therapy.” This helps a reader more quickly locate the note, if that person wants to refer to it later, and it increases reading efficiency.
- In the header or at the start of a note you should identify patient sex and age, the reason for your interaction with the patient (i.e., reason the patient presented to you) and the condition(s) and its acuity for which the patient is seeking or receiving therapy.
- Although much information may have been obtained in the interview for the S portion or found in the chart for the O portion, include only information pertinent to the problem(s) being assessed. Data that does not pertain to the problem you are addressing will clutter and lengthen your note.
- Write legibly, clearly and concisely. Remember that if others cannot read your handwriting, or choose not because of the note’s length or complexity, they will not know what you propose to do.
- Use only approved medical abbreviations that all health care professionals are likely to understand and correctly interpret. For example, “heart rate” is often abbreviated “HR,” so health care readers are likely to know this abbreviation. Many pharmacists abbreviate “antibiotics” by writing “abx,” but non-pharmacists may not know this abbreviation. Even when an abbreviation is well known, there are still good reasons to write it out. For example, BS is commonly used for “blood sugar,” “breath sounds,” and “bowel sounds.” SE may mean “side effect” to a pharmacist, but a physician might be more likely to interpret it as “self-examination,” while a nurse would read “saline enema.” When in doubt, write it out. Also recognize that some abbreviations are now discouraged at a regulatory level. For example, writers wanting to indicate the strength of vitamin D would in the past typically write “400 IU.” Now,
however, such an abbreviation is considered dangerous, so writing such abbreviations in the medical chart will result in (at best) admonishment plus training or (at worst) job probation, job loss or litigation.

- Do not leave spaces between lines when writing in a patient’s chart.
- Do not make editorial or derogatory comments about a patient or any previous decisions made by other healthcare providers. In fact, it is best to avoid all words that sound judgmental, including words like “pleasant,” “attractive,” “rude,” and “inappropriate.”
- Sign the bottom of the SOAP note and place your credentials after your name (e.g., PharmD IV student, pharmacy intern). Print your name below your signature, unless your signature is very legible. Have your preceptor co-sign the note; many sites require preceptor co-signature.
- Include clinic, pharmacy, cell, or pager number so you can be contacted if the reader desires follow-up (only for notes in the medical chart).
- If pertinent information was omitted from a previously written SOAP note, do not insert it into the note late. Instead, write the information as an addendum.
- If a mistake is made while writing the SOAP note do not “white” it out or try to erase it. Simply draw one line through the mistake and initial it. This and the previous point are not just issues of aesthetics but also represent appropriate care of a legally binding document.
- Develop the habit of estimating the amount of time spent working with a patient and include the number of minutes at the end of the note, if you’re working in an ambulatory care setting.

**Giving feedback to SOAP writers**

Be specific and consistent in the feedback you give your student about their documentation notes. Be sure to note things that are done well as well as things that could be improved. On the next two pages, you will find a couple of student SOAP notes and a critique written after the note. Reading over these examples may be useful to you if you do not have a lot of experience providing feedback on documentation.

**Confidential Information**

Per the Health Insurance Portability and Accountability Act (HIPAA) of 1996 (Title 45 CFR § 164.514), you cannot communicate any of the following information to people who are not directly involved in the care of the patient: all names, geographic subdivisions smaller than a state, dates (birth, death, admission, discharge), medical record numbers, phone/fax numbers, and email addresses. Additionally, our school policy is that you cannot identify specific dates, patient initials, names of health care sites, and names of other health care professionals providing care to the patient on any written or verbal case information which goes outside the care environment. To reiterate, confidential information can be referred to in discussions with people providing care to that patient and in care notes left in the patient’s medical record, but must be removed when presenting case material to people outside the care team.
Student SOAP Example #1

Pharmacy note regarding CAD medication therapy for 56 yo male

S: Pt here today for follow up of lipids after starting simvastatin 20mg 6 weeks ago. He reports that he tries to take his medication everyday, but sometimes forgets. He has not had lipids checked since starting the statin. Denies side effects. Reports that he has tried to avoid eating eggs and that he frequently walks because his main form of transportation is the bus and walking is required to and from bus stops. Pt reports that he will have a treadmill test next week. Pt states that he takes aspirin 325mg po daily most days. After taking blood pressure, pt stated that he took blood pressure medication in the past. Pt currently homeless. Continues to deny alcohol use

O: Current meds: simvastatin 20mg po daily, aspirin 325mg po daily

BP today 140/95

A: Blood lipids have not been checked since pt started taking statin, will have them checked today before titrating dose. Current statin is expensive, will change patient to lovastatin as he is uninsured. Homeless—difficult to contact, may be difficult for him to make good diet choices. BP was a bit elevated today—continue to monitor but may need to address at future visit. Pt currently buys his own aspirin, taking 325mg po daily. Will provide rx here at clinic to decrease med cost.

P:

Hyperlipidemia. Gave pt lab slip to check lipids today. Changed pt to lovastatin 40mg po daily to decrease medication cost. Will f/u with pt next Thursday.

Blood pressure: Check at f/u appt on Thursday

Other: Provided rx for aspirin 81mg po daily to pt to be filled here.

Analysis of this note

This is a fairly well-written SOAP note. There is not a lot of extraneous information provided, the assessment is about the patient’s medications rather than disease state, the writer’s thinking is fairly clearly explained, and the plan takes into account what the patient probably can and cannot do.

Areas to fix:

• There is no allergy information.
• The note could like be written more succinctly.
• The writer should focus first on the drug therapy in the assessment, rather than the lab test.
• The writer needs to explain in the assessment the rationale for change in aspirin dose.
Student SOAP Example #2
Pharmacy note regarding anemia

S: 42 yo woman presents with pale skin, weakness, dizziness, and epigastric pain. 2 weeks ago she experienced decreased exercise tolerance. She takes frequent doses of antacids and uses ibuprofen 200mg prn headaches, NKDA. She has 3 children, ages 15, 14, and 1 yo.

O: T 38 C, RR 18, BP: sitting 118/75, standing 120/60, HR: Sitting 90, standing 110. Hgb 8gm/dL, Hct 27%, platelets 300,000/mm3, retics 0.2%, MCV 75, serum iron 40mcg/dL, serum ferritin 9ng/ml, TIBC 450 mcg/dL, guaiac stools. Cheilosis at corners of mouth, and koilonychias at nail beds. PMH: peptic ulcer and pre-eclampsia with last pregnancy. Dx Iron Deficient Anemia

A:
1. Treat anemia with an iron supplement (iron sulfate). Educate and counsel parent on tolerance and SEs.
2. Discuss guaiac stool and ibuprofen, f/u with PCP on GI bleed, possible ulcer. Recommend d/c ibuprofen, use APAP prn headache.

P:
1. Iron sulfate 325mg TID x 6 months – f/u with PCP for retics count after 7 days of therapy. Counsel/educate pt on a) take on empty stomach if possible, ok with food if cannot tolerate, b) separate iron dose from antacid dose, c) iron can cause constipation and darken stool color, d) keep iron out of reach from children – toxic.
2. Make appt with pcp for probably ulcer/GI bleed. d/c ibuprofen, take acetaminophen 500mg po q 4-6 h prn p, NTE 4000mg/24 h (counsel on liver toxicity)

Analysis of this note

This is a nicely-written SOAP note. There is not a lot of extraneous information provided, the assessment focuses on the medications rather than diagnosis, the writer is fairly terse, and the plan includes monitoring for toxicity as well as efficacy.

Areas to fix:

• The note is written almost too succinctly. Missing is the rationale for choice of agent versus another iron product.
• It would be good to clarify how frequently antacids are used and what type of antacid product she uses. Some antacids can affect the absorption of iron, so more detail would be beneficial.
• The writer also needs to be more careful about the numerous abbreviations used. Fewer would be better.