

The Academic SOAP

A Beginners Guide: To Help You Get Started

Written by:
Heather Gardner, WSU DVM Class of 2011
Steve Hines, DVM, PhD, DACVP



Table of Contents

Illustrations: Jay Huang

Photography: Greg & Heather Gardner

1. Introduction to the Academic SOAP and POMR...pg. 1
2. Creating a Master Problem List...pg. 3
3. The Approach...pg. 4
4. Updating Your MPL and SOAPs...pg. 17
5. Sample MPL...pg. 19
6. Sample SOAP...pg. 21
7. Some Useful References...pg. 25

Introduction to the Academic SOAP and POMR

Why are academic SOAPs different??



In private practice, the goals of a medical record are to communicate your thought processes to staff and colleagues, assure a systematic approach, and establish a legal record.

A person who is unfamiliar with a case should be able to walk in, read your medical record, and understand what you did and why you did it.

As a student in a teaching environment, your medical records have some additional goals. Writing SOAPs should facilitate the **LEARNING** process by requiring you to research and review problems,

DfDx's, treatments, etc. Your SOAPs should also **DEMONSTRATE** for your instructors both your clinical reasoning skills and your understanding of each problem.

The following guide is designed to help you practice writing academic SOAPs. For practice cases, please visit the website listed on the back page.

GOALS

1. To work through problems systematically
2. To communicate effectively
3. To learn and demonstrate this knowledge
4. Create a legal record – so don't forget to sign it!!



Creating a Master Problem List (MPL)

The MPL is a place for you to keep track of all the problems identified in your patient. The MPL is a dynamic list that grows and changes along with your understanding of the problems and their relationships to one another.

RULES OF THUMB:

- ~ Always keep the MPL front and center in the medical record.
- ~ Update the MPL as often as needed by adding to the bottom of your list.
- ~ Try to list **high yield problems** first, and work your way down to the lower yield problems (see example on the right.)

EXAMPLE:

1. Vomiting
2. Hematemesis
3. Inappetance
4. Lethargy
5. Pale mucous membranes
6. Tachypnea

Don't stop making
Differential Diagnoses
too early!!



Don't over-interpret or mis-interpret your findings based on your presumptive Diagnosis!

Progress notes are written in the form of a SOAP

S = Subjective

O = Objective

A = Assessment

P = Plan

Since you are learning, you

Try to use abbreviations as little as possible when writing SOAPS. You want to convey information clearly to anyone reading your SOAP.

The Approach

are expected to SOAP each **problem**. When you are in practice, you may be able to just SOAP the **case**. The reason for this difference is that your **goals** are different!

In addition, different services in the VTH have different expectations for SOAPS.

Subjective

S:

The subjective assessment of the patient and/or problem

- BAR, depressed, no change, improving, getting worse...

Objective

O:

Information you can measure from the physical examination and diagnostic results.

- Heart rate, blood glucose, TPR...



It can be hard to separate the subjective and objective information

- So you can combine them into an S/O section. This is often pretty short.



When you get a new case and sit down to SOAP the first problem on your Master Problem List, it is best to summarize the case. This will include writing the signalment, physical exam findings, and previous history in the SO portion of the first SOAP. See the next page for an example.

Remember – you only have to do this

ONCE. After that, you can simply address the problem you are currently working on.

For Population Medicine – treat the herd like a single animal. SOAP problems that occur in the herd and note the number of animals (8/20) affected by that problem (watery diarrhea).

This is an example of the first problem to be SOAPed in the case of Spot. Notice how the case was summarized in the S/O portion of the first problem.

Problem #1: vomiting, acute onset

S/O: Spot is a 15-pound, 3 year old male intact Jack Russell Terrier. Spot presented today with a history of eating out of the garbage can and vomiting 15 minutes later. Spot's owners brought him here immediately after the vomiting occurred. Spot did not vomit again in the clinic. He appears BAR, no abnormalities were noted upon cardiac auscultation or abdominal palpation. T: 102°F, P: 110, R: 33. Spot is up to date on all his vaccines, and has not been to the vet since his last rabies vaccination 3 months ago.

Continue writing up the SOAP as you normally would, with the Assessment, Plan, etc.

Assessment

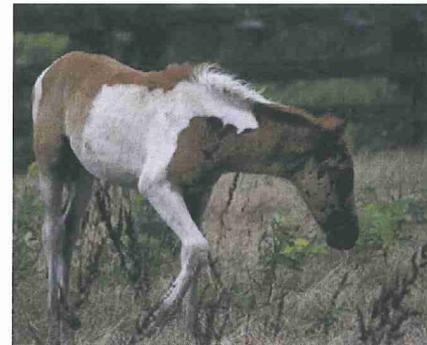
3 Main Parts of the Assessment:

- General Pathophysiologic mechanisms for the problem.
- Pathophysiologic mechanisms likely in THIS case.
- Differential Diagnoses (“rule-outs”) for THIS problem.

The best Differential Diagnoses for THIS CASE will appear as Differential

Diagnoses for other problems.

In other words, the best Differential Diagnosis can explain multiple problems and observations in your case.



Three Basic Steps

1st ~ Think and Write about the problem by itself.
(e.g. What is vomiting & what are the basic mechanisms that cause it?)

2nd ~ Think and Write about the problem in light of the other problems and other information in your case.

(What are the likely mechanisms and why?)

*See the next page...

3rd ~ List your Differential Diagnoses
(In approximate order of priority)

REMEMBER:

Especially in a teaching environment, you need to show other students and faculty **HOW** you worked through the problem, and **HOW** you arrived at your Differential Diagnoses!



The Assessment is usually the hardest section to tackle when you're first learning. The best way to approach it is to find a way of organizing your thoughts logically so you can demonstrate your understanding of the problem in a thorough and concise manner. Especially early on, you will have to do some research first!

Don't Forget:

Your SOAPs are an important way by which your knowledge and thinking processes will be assessed in 4th year!



Common Mistakes and How to Avoid Them...

Mistake #1:

- Not considering the other problems on your MPL.
 - o Think of it as a puzzle... you ultimately need to find a way for the pieces to fit together.

Mistake #2:

- Not looking at the connections between the mechanisms & problems on your MPL.
 - o Try asking yourself questions, such as...what are the likely mechanisms for each and why? Are there problems that are logically connected based on pathophysiology? If so, how?

Mistake #3:

- Continuing down a path, even when the pieces of the puzzle don't fit.
 - o Don't force an explanation that doesn't fit. Try considering other explanations.

Mistake #4:

- Not considering normal or mildly abnormal findings in the case.
 - o Even though they may not be listed on your MPL, normal values can help shape your thinking processes in a case and should be considered in your SOAP.

Mistake #5:

- Over analyzing your problems.
 - o Be careful not to over interpret.
 - o Don't combine problems prematurely or inappropriately.

REMEMBER:

Writing ACADEMIC SOAPS takes PRACTICE!!

Don't expect to get it right away.

**It will become much easier as your
knowledge of veterinary medicine grows.**

**An important goal is to help you acquire a
strong knowledge base, and organize it in
a way that is useful!**



Plan

For each problem – you create a Plan.

The goal is to help you rule in/out your primary Differential Diagnoses and/or treat the patient.

People reading your plan should understand WHY you proceeded with the case the way you did based on your SOAPs.



Initial Plans may include:

- Specific diagnostic tests you are considering at this point
- Specific treatment plans to address the problem
- Wait and see
- Plans for client communications



You should sign this part also!



At the end of each day...

You need to create a **MASTER PLAN**.

This is a list of what you really want to get done right now. You might think of it as a "To-Do List" for your case.

Check boxes should always be placed next to each item on the Master Plan list – and don't forget to check things off as you do them!

MASTER PLAN

- Take blood from the jugular vein
 - Submit blood for a CBC
 - Submit blood for a Chem Panel
- Obtain a free catch urine sample for a urinalysis
- Administer 300 mL 0.9% Saline subcutaneously
- Talk to owner about taking chest radiographs this afternoon

A Few Last Words of Wisdom...

There are specific GOALS to keep in mind when writing academic SOAPs
To achieve this goal you need to write about each DfDx, giving you the chance to review each disease & then demonstrate your thought processes.

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Normal (or near-normal) diagnostic results are important to consider!
Even though they may not be listed on your MPL, normal values can help shape your thinking processes in a case and should be considered in your SOAP. For example, normal blood and urine glucose could be used to rule out diabetes mellitus.

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There's no "one right way" to write a SOAP.
Everyone has his or her own individual style.
Different services in the teaching hospital have different goals, and thus different expectations regarding SOAPs. You will need to meet their expectations – but the ultimate goal is to find a style of SOAP writing that works for you.

It's all about learning, right??



As soon as you find an explanation for several problems, you can combine them – by updating them to a new problem. You can then SOAP the new problem based on your current understanding of the situation. Just make sure your SOAP reflects your reasons for combining problems!!



Updating your MPL and SOAPs

What happens to a problem after it has been placed on your MPL??

Problems on your MPL will change along with your understanding of how that problem fits in with your case.

There are several ways to handle problems...

1. Add new problems to bottom of the MPL (enough said)
2. You can resolve problems (When the problem goes away)
3. Inactivate problems (These are problems you are not going to deal with any time soon. For example, "tick on a dog")
4. Re-define problems (Combine the problem with another problem on the MPL, or upgrade the problem to a higher level of understanding)



The ultimate goal is to redefine as many problems as you can into a single problem. This is not always possible, since many patients have multiple unrelated problems.

SOAPing A Case: The Big Picture

Day 1:

1. List active problems on the MPL (start with high yield problems)
2. Take each problem one at a time and SOAP them.
 - a. Write the Subjective and Objective components
 - b. Break down the Assessment so you can organize your thoughts. Be sure to include the general pathophysiologic mechanisms for the problem, the most likely mechanisms in the case at hand, and your Differential Diagnoses for this problem.
 - c. Write your initial plan for this problem and provide a rationale for each.
3. At the end of each day's SOAP, create a Master Plan with checkboxes.
4. Sign your medical record!

Day 2:

1. Update and Revise your MPL
2. SOAP all of your active problems, create a new Master Plan, and Sign the record.

Day 3:

1. Repeat as needed.
2. You get the picture...

If a problem, or your thinking about a problem is unchanged – just say so!!

Don't repeat what you have already said (nor copy and paste a previous SOAP).

Sample Master Problem List

1. Vomiting
2. Inappetance
3. Lethargy
4. Pale mucous membranes

After gathering a history and physical exam, you can start listing problems in the MPL. Try to list high yield problems first.

When you get your diagnostic results back, you can add those to the bottom of your MPL. Again, listing high yield problems first!

1. Vomiting
2. Inappetance
3. Lethargy
4. Pale mucous membranes
5. **Nonregenerative anemia**
6. Azotemia
7. Isosthenuria
8. Hypoproteinemia

→ upgrade to #5

Upgrading & Combining Problems

* Just be sure the SOAP reflects your rationale for upgrading or combining each problem

1. Vomiting → upgrade to #9
 2. Inappetance → upgrade to #9
 3. Lethargy → upgrade to #11
 4. Pale mucous membranes → upgrade to #5
 5. Non-regenerative anemia → upgrade to #9 and/or #10
 6. Azotemia → upgrade to #10
 7. Isosthenuria → upgrade to #10
 8. Hypoproteinemia → upgrade to #9
 9. Gastric ulceration
(demonstrated by endoscopy) → upgrade to #11
 10. Interstitial nephritis & fibrosis
(end stage kidney)
(demonstrated by renal biopsy) → upgrade to #11
 11. Chronic Renal Failure (final diagnosis)
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As your understanding of the case increases, you can start to combine problems on your MPL. It may be helpful to ask yourself a question such as...Can gastric ulceration cause hypoproteinemia?? If so, you can upgrade hypoproteinemia to gastric ulceration. *

While there are many causes of hypoproteinemia, you know gastric ulceration is present, so in this case the ulcers are the likely cause of the hypoproteinemia due to increased loss from the plasma.

Sample SOAP

Scenario:

Fluffy, a FS, DSH has come into your clinic today because Fluffy's owner has noticed that Fluffy has terrible breath. When you look in Fluffy's mouth, you see that the teeth have quite a lot of tarter & gingivitis. Upon physical examination, you palpate bilateral enlargement of the sub-mandibular lymph nodes. No other abnormalities are noted at this time.

MASTER PROBLEM LIST

1. Dental Tartar → upgrade to #5
2. Gingivitis → upgrade to #5
3. Halitosis → upgrade to #5
4. Submandibular lymphadenopathy
5. Periodontal disease

This is an example of ONE way to write a SOAP. There are lots of ways this SOAP could be written!



PROBLEM #4: sub-mandibular lymphadenopathy, mild to moderate

SO: Fluffy, a 10 year old 9 pound female spayed domestic short hair, presented because the owner has noticed that her breath is very foul smelling. Upon palpation, there is moderate (3-4 cm) bilateral enlargement of the sub-mandibular lymph nodes. The lymph nodes feel firm, freely moveable, and do not appear painful.

A: There are 3 general mechanisms of lymphadenopathy: Hyperplasia, Inflammation, & Neoplasia

Hyperplasia reflects increased numbers of lymphocytes, and occurs due to antigenic stimulation. The normal architecture of the lymph nodes remains intact.

Inflammation occurs when the lymph node is actually involved in the process. This is something that might be seen in cases of an infection that moved from an initial site to a draining node. Inflammatory cells (neutrophils and macrophages), and possibly bacteria are expected in fine needle aspirates of inflamed lymph nodes.

In neoplastic processes, the lymph nodes are commonly grossly enlarged. Lymph nodes can be involved as part of the primary tumor (lymphoma) or as part of a metastatic process in which the tumor spreads from a primary site to regional or distant lymph node(s).

- In this case the most likely mechanism is hyperplasia. The lymph nodes are likely enlarged because they are draining the oral cavity where there is significant dental disease. Fine needle aspiration would be helpful to see the cell types present. Also, a CBC, Chem panel, and urinalysis should be considered to rule out a systemic problem.
- Inflammation of the lymph nodes is another possible cause of lymphadenopathy. Bacteria may have drained from the infected oral cavity. In Fluffy the clinical signs do not support this, because the lymph nodes are not painful and tender, and the area around the lymph nodes is not warmer than normal. Aspiration of the lymph node will help to

- rule this out, because inflammatory cells would be expected with lymphadenopathy.
- Neoplasia is another possibility, although it is less likely. The lymph nodes are only moderately enlarged, and there is no evidence of a primary tumor in my evaluation of Fluffy. However, I was unable to get a very good look in the mouth during the physical examination. In order to help rule a neoplastic process out, a fine needle aspirate of the lymph nodes should be performed, and the oral cavity should be carefully examined under general anesthesia at the time of the next dental cleaning.

Differential Diagnoses (DfDx):

- Hyperplastic lymph nodes secondary to dental disease.
- Oral bacterial infection draining to the sub-mandibular lymph nodes.
- Oral tumor with metastasis to the draining lymph nodes.

P:

- Fine needle aspiration of both submandibular lymph nodes
- Draw blood for a CBC, Chem Panel (submit blood)
- Collect urine for urinalysis via cystocentesis
- Schedule a dental cleaning. Under anesthesia, do a careful oral exam to rule out a primary oral tumor.

Some comments on the sample SOAP...

- In this SOAP, the rationale for the tests in the “plan” section of the SOAP was explained in the assessment section. This is fine, as long as the reasoning for these tests is made clear in the SOAP somewhere. Another option would be to justify your reasons for ordering the tests in the “plan” section itself.

REMEMBER –

After you have SOAPed all of the problems, you must sign the Master Plan!

Some Useful References

Ettinger and Feldman. *Textbook of Veterinary Internal Medicine*. 6th Edition. Elsevier, 2005.

The first 7 chapters are problem oriented.

Lorenz and Cornelius. *Small Animal Medical Diagnosis*. 2nd Edition. Lippincott Williams & Wilkins, 1993.

The entire book is written with a problem oriented approach in mind.

Plumb. *Plumb's Veterinary Drug Handbook*. 6th Edition. Blackwell Publishing, 2008.

Especially for DC's - you will need to know doses!

Radostits, et al. *Veterinary Medicine: A textbook of the diseases of cattle, horses, sheep, pigs and goats*. 10th Edition. Saunders, 2007.

A great large animal reference book.

Stockholm and Scott. *Fundamentals of Veterinary Clinical Pathology*. 2nd Edition. Blackwell Publishing, 2008.

Helpful when you are still learning (or just need a reminder) of what the results of a CBC, Chem panel, and UA mean!

For Practice Cases...Please Visit
<http://courses.vetmed.wsu.edu/vm546/SOAP/index.aspx>



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