

Case Western SOM Student-to-Student Guide to USMLE Step 1

2013

How to Use This Guide

This guide was created from advice gathered by about a dozen students of the SOM Class of 2015. They were chosen because they are dedicated, hard-working individuals who did well on the test and want to pass on their experience to you. Specific students who were experienced with a particular topic or resource were chosen to write reviews for that area. Therefore, the reviews do not reflect the collective opinion of the class of 2015 in general, but the individual opinion of people experienced with that resource (the “experts”, so to speak).

It is divided into roughly three sections. The first section is a collection of student reviews on the various resources used for board studying, ranging from Qbanks to test prep books. The second section offers some sample study plans used by students for board studying. The third section is a collection of advice on some of the more difficult questions you will face from now until the day of the exam, ranging from scheduling to tips on the day of the test.

This guide is a way for those who have taken the test recently to transfer experience to you. It is meant to shed light on the whole experience of preparing for Step 1 and to share insight and ideas that you have not had yet. It should be an aide in creating your study plan for the boards and to quell any anxiety you have for the whole process. Good luck.

Table of Contents

Study Resources

1.1-1.4-Qbanks.....	3-5
2.1-2.8-Comprehensive Study Guides.....	6-9
3.1-3.7-Study Resources by Subjects.....	10-15

Sample Study Plans

4.1 Wearn Method.....	16
4.2 Robbins Method.....	16-17
4.3 Satcher Method.....	18-19

Section 3-General Advice

5.1 Advice for Pre-Board Studying.....	20-22
5.2 Advice for Board Studying Period.....	22-24
5.3 Advice for Day of Exam.....	24-25

Qbanks

1.1 USMLERx

<https://www.usmle-rx.com/content/step-1-qmax>

The USMLERx Qbank is extensive and has very detailed, “nitty gritty” questions. By contrast, Uworld tends to have more general questions that are closer to the style of Step 1. It is not necessary to complete the Rx Qbank and it is too ambitious to attempt to do it all in your board studying period because Uworld will be your Qbank at that time. However, the Rx Qbank is useful for preparing you to answer boards style questions, meaning thinking in the way that you need to for Step 1 and answering a set of difficult questions under timed conditions. The Rx Qbank is probably best used in tandem with studying after Block 4, because many questions are integrative and you will not have the knowledge base to answer them prior to completing Block 4. It should be used as an assessment of your learning and to gauge how well you can apply that learning to Boards style exams. Put another way, it takes the information you’re learning in your blocks and present them in a question format similar to how the USMLE would do it. A good way to use it would be to do 10-20 questions per day or spend an hour or two on a weekend testing material that you have recently learned. You will most likely forget many of the details when it is time to study for boards, but you will have at least seen common questions and that will make boards prep easier.

Bottom Line: 7/10

Second Opinion: Given the reference pages to FA, this Qbank is best used in tandem to studying FA for the first time. This is important because you might know WHAT information needs to be covered through FA, but you wouldn’t know HOW that information is presented in the USMLE unless you use a Qbank like USMLERx. The USMLERx does a pretty good job with accurately representing the clinical presentations of each disease you’re likely to see in the USMLE. In reality, the actual USMLE tests more basic science than what USMLERx provides, but is more conceptual and less detail-oriented than the Kaplan Qbank.

Rating: 8/10

1.2 Kaplan Qbank

<http://www.kaptest.com/Medical-Licensing/Step1/s1-qbank.html>

Pros: 2200 Qbank questions + 1 diagnostic test + 2 simulated exams = >3000 questions. I found the explanations to be good, comparable to UWorld answers, fairly long and detailed. Some answers have additional video explanations done by Kaplan faculty, which I was skeptical about at first, but ended up finding them quite helpful. Questions provide First Aid page references across multiple editions and Med Essentials (another Kaplan product) page references, which made First Aid annotation much, much easier (but no page references for Kaplan Lecture Notes). Higher quality and quantity of heart sounds and videos of signs/symptoms than UWorld. Added bonus: iPhone/Android app support.

Cons: More detail-oriented than UWorld and USMLERx; though one upside is that there's an option to only choose the "Highest Yield questions" (still 1600+ questions). As a result, some questions can be more nit-picky than what you would be used to in UWorld (which has a more

conceptual focus). Some questions are worded poorly, but I would say that's just a minority of questions. No option for feedback built into the system so you need to make an added effort to email them if you want them to look at a particular question.

If used during dedicated board study time as a second or third Qbank (in addition to UWorld), I think Kaplan is quite valuable. Its value will depend on how you structure your time and how many questions you plan to do per day. When crunched for time, only go through the 'Highest Yield questions', avoiding a lot of the more poorly worded / overly detailed questions that Qbank has. Looking back, I would have done a more thorough pass through Kaplan Qbank's Highest Yield Only (or missed questions + marked) alongside UWorld instead of going through UWorld 2x.

Bottom Line: 8.5/10, I'm in the camp of the more unique questions you are exposed to, the better. I'm obviously biased towards Kaplan, but to each his own. Some of the questions were frustrating/infuriating, but overall I was quite satisfied.

Second Opinion: 8/10 In general, I would recommend getting two QBanks while studying for the Step 1, as you will run out of questions too quickly otherwise. Kaplan questions are an effective tool for study and decently mimic questions on the board exam. However, the Kaplan questions are more difficult and more detail-oriented than the USMLEWorld questions.

1. 3 USMLE World Qbank

<http://www.usmleworld.com/purchase.aspx>

UWorld is hands down THE BEST Qbank out there. It very accurately mimics the medium-hard questions of the actual test. The format is exactly the same as the real test, so it's nice to be familiarized with the strikeout, highlight, calculator, and lab value tools. The only caveat is that the anatomy and physiology sections were not as emphasized as compared to the real test or NBME practice tests. To fully utilize the power of this resource, do mixed, timed sets. In the beginning of the test study period, question sets can target specific organ systems. However, the problem that I run into doing these targeted sets are 1) I unconsciously tie each question to the particular organ system I'm working on (e.g. my DDX of a pt. with epigastric pain in a GI set would be limited to GI problems, when in fact the pain could be cardiovascular, pulm, or MSK in nature) and 2) I forget information from other organ systems. So with 2-3 weeks left, focus on doing mixed sets to build stamina and train the mind to think about each question globally. UWorld now lets subscribers reset their account once so that all the questions are "unused"; take advantage of this feature to reset your account for mixed sets. Why? You want a "representative set" of mixed questions, which you wouldn't get if for example you had exhausted all the cardio and GI questions doing targeted sets.

Specific Tip: take notes. What my partners and I found useful was to get about a dozen pieces of paper and assign an organ system/topic per piece of paper. For each question we got wrong, we would write on the relevant piece of paper the set number and question number with a short explanation. Two weeks and 30 sets later, we could 1) easily find the UWorld explanations for any particular question we got wrong, 2) track topics we were weak in (it's usually the ones with the most writing on them), and 3) in 30 minutes, we can quickly review all the stuff we got wrong.

Bottom Line: 10/10

1.4 UWorld v. Kaplan v. USMLERx

Ahh, the age-old “Which Qbank is better?” question...there are lots of opinions about this: a quick search on SDN will reveal the consensus that UWorld is the best, but also best saved for last, as it most mirrors Step 1, while both USMLERx and Kaplan are 'good'. From what I understand, USMLERx questions are easier than UWorld, and are more 'buzz-word' focused. I would say Kaplan is more on the UWorld end of the spectrum, where questions stems (and explanations) are longer and don't always provide the buzzwords that immediately allow you to select the right answer. Kaplan questions are definitely as hard, if not harder than UWorld. As Kaplan does have First Aid page references, it actually works fairly well with First Aid, considering much of what is in Kaplan is not even touched in First Aid. The most common complaint I hear about Kaplan is that "it tests minutia", however I'll make the counter argument that the real Step 1 itself also tests minutia, and it's definitely not going to be all buzz-words. Furthermore, if the more detailed questions bother you and you don't feel it's 'high yield', it's easy enough to filter them out or just skip them. I can't say whether Rx or Kaplan is better, but if I were to do it again I would still pick Kaplan despite its shortcomings as I found the more challenging questions to be most helpful in me learning new material.

Bottom line: 1) save enough time to go through UWorld 1.5-2 times at the end and if you have time before that, go ahead and get another QBank. 2) The strength of USMLERx and Kaplan is to teach you specific “high yield” details for the USMLE (and the test is all about memorizing “high yield” details). So don't worry about how high you score for these Qbanks or how many questions you get through. The real question you should ask yourself is: how much information will you retain when you finally move on to UWorld?

Comprehensive Study Aids

2.1 First Aid

http://www.amazon.com/First-USMLE-Step-2014-Series/dp/0071831428/ref=sr_1_5?ie=UTF8&qid=1383609957&sr=8-5&keywords=first+aid

Strengths/Weaknesses: This is a very comprehensive text, meant to highlight all the important contents of the USMLE and dive into the most high-yield details. There is no section that is particularly weak, but I have noticed that in general physiology and anatomy are not as emphasized as they are in the real test. Of course, the lack of images and histology in many of the pathology sections is also a weakness, although recent editions have been adding more and more of that. Also, occasionally FA simply lists random factoids; treat these as reminders for you to cover particular areas of knowledge with other sources. At a certain point towards the end of the studying period, FA will not be detailed enough and you will start to crave other materials (but before you get ahead of yourself, you had better know FA cold before deciding to branch out).

Use before study period: One of the most important uses of FA during the blocks is to bridge the gap between the Case curriculum and what you need to know for the boards. So even though this advice is trite, cover everything on FA for the particular organ system you're studying in class; there is no such thing as a "low yield" topic in FA. Also, it's not enough that you understand the concepts and took notes on them-- you literally need to memorize these things. In my experience, it's better to memorize something, forget it, and re-memorize it rather than desperately trying to cram something in for the first time 4 weeks before your test. My advice: do some questions in a Qbank, realize why you have to memorize these facts, and then memorize them. Don't be lazy and think "Oh I understand why I got it wrong". No, memorize that key fact and own it.

Use during study period: Read FA, take notes. Reread FA, retake notes on information you're having trouble with. Memorization is key for FA. It is not meant to be read and understood, it is meant to be committed to memory. For many, if not most, questions on UWorld and the USMLE test, recall of key knowledge is necessary to get the question right and there is no way to "think" through these questions; you either know the information or you don't. I've known people who literally take blank paper and attempt to rewrite whole pages from FA from memory, that's how high yield this book is.

Bottom Line: 10/10 First Aid and UWorld are the core curriculum and deserve the majority of your attention. FA is not perfect and there will be questions on UWorld that go beyond the scope of FA. Study these questions but don't freak out. It's better to master the core material first and then go chasing those esoteric bits of information that might or might not show up on the real exam.

2.2 UWorld Qbank

This resource is so important it's going to be included in this guide twice. UWorld is exquisitely fine-tuned to the subtle details that are arbitrarily emphasized in the USMLE. The trouble people get into while doing UWorld is 1) They take 4 hours to go through 1 set of questions because they read through every explanation. [No, you don't need to go through questions you got right (unless you guessed), and no, you don't need to read through the wrong answer explanations to understand the concept being tested. Exercise judgment.] and 2) They over-compensate by

blowing through several sets in order to “meet their daily question quota”. Well, you don’t get extra points on your USMLE for going through 5000+ questions. Just going through the motion of doing questions is pointless without learning something from them.

Bottom Line: 10/10 Don’t freak out over your percentages. This resource is meant to teach more than to assess.

2.3 USMLERx videos

<https://www.usmle-rx.com/content/first-aid-step-1-express-video>

These basically read through First Aid. They are useful for slowing you down and giving you some mnemonics that are not in the text, especially if your text is an older edition but overall there is little explanation. These are best used only once (if it all) and should be considered entirely optional.

Bottom Line: 3/10

2.4 Kaplan Lecture Notes (KLN)

http://www.amazon.com/Kaplan-Usmle-Step-Lecture-Notes/dp/B00AP9CHUW/ref=sr_1_1?ie=UTF8&qid=1383610039&sr=8-1&keywords=kaplan+lecture+notes

A quick note: KLN refers to a series of books published in textbook format that covers all the subjects in the USMLE Step 1. There are 7 fairly large books (several hundred pages each) - Anatomy, Behavioral Science, Biochemistry/Medical Genetics, Immunology/Microbiology, Pathology, Pharmacology, Physiology. While they are meant to supplement the videos, these books in and of themselves are a pretty complete set of texts.

Pros: I found the Anatomy, Behavioral Science, and the Biochemistry/Genetics books to be particularly useful, as there aren't too many review books on these topics that are considered absolute gold. Some would argue that BRS Behavioral Science is better (I never read it), and that the First Aid section of Biochem/Genetics is all you need, but I disagree. On the other hand, it's almost undisputed that there are better alternatives for Physiology (Big Costanzo, BRS Physiology) and Pathology (Pathoma, Rapid Review Pathology). As for the two remaining books, I preferred FA for Immuno/Microbio and Pharmacology. In general, I found the books to be decently written with lots of detail, colored pictures, and diagrams.

Cons: LOTS of TEXT. Depending on your preference, you may like or hate the fact that it's written in paragraph form. It has a LOT of detail, some would say TOO detailed. My opinion is that more detail won't hurt, as they provide chapter summaries and bold the more salient points for you. If you're a bullet point person, these are probably not the books for you. Small point, but the international edition paper quality is pretty thin, which makes it easy for pen marks to bleed through should you decide to annotate.

Use prior to dedicated board study time: If you're the type of person that likes to read paragraphs/sentences, as opposed to the bullet points of high yield facts found in many other review books, it might be worth your time to read parts of the KLN. If you plan on going through

First Aid prior to board study time, I think the Lecture Notes are a great companion for filling in explanation/details that are basically non-existent in First Aid.

Use during board study time: To be honest, I didn't use it much during my dedicated board study time, I found Google/Wikipedia to be much faster/efficient than looking in the index of the KLN.

Bottom Line: 3.5/10, you can find equivalent/better alternatives for most of the books (except for those that I mentioned above), may be more useful to people that like reading paragraphs vs. bullet points found in most review books.

Second Opinion: 6/10 This resource is pretty useful for “early game” studying; that is, your first comprehensive review. It is far more detailed than FA, which is useful if you're trying to study something that is not covered well in FA. This resource is not good for the actual board studying period, which requires more finesse and condensed text. If you only have 6 weeks to go, this resource is 3rd-line for esoteric info that you can't get elsewhere. In terms of content, I found the immunology appropriately detailed and well organized. The pathology section sucked.

2.5 Kaplan Videos

<http://www.kaptest.com/Medical-Licensing/Step1/s1-high-yield.html>

Kaplan videos are not that helpful; they are read straight from the FA book most of the time. The instructors are [likely] current med students and you don't even see their faces, just pictures of the Powerpoint slides and their voice in the background.

Bottom Line: 2/10 The powerpoint guides were OK and the videos did force me to cover all the subjects. However, I would recommend skipping the full course deal and just get the Kaplan Qbank.

2.6 Firecracker (Gunner Training)

<http://www.firecracker.me/>

Firecracker is essentially an online version of First Aid, and then some. The information is organized the same way as First Aid, and you can ‘flag’ sections to indicate that you have studied them. Firecracker will schedule quizzes containing questions based on the topics you have flagged. Questions that you get wrong are more likely to appear earlier in the following quizzes, so you get more practice on topics that you are struggling with.

Firecracker does have a ton of information. Firecracker's method is an excellent way to memorize material. The problem is that it is far too rigorous of a program and it would simply take forever to finish. If you try to finish Firecracker within the 7 weeks you have for boards, you will rack up over 2,000 questions per week, which is incredibly time consuming and time that could otherwise be spent on better question banks such as USMLEWorld and Kaplan. The other virtue of Firecracker is that it is a good reference for when you want to look a topic up. In summary, it is an effective tool, but it would take forever to finish.

Bottom Line: 6/10

2.7 Doctor In Training (DIT)

<http://www.doctorsintraining.com/shop/usmle-step-1/>

DIT is a good starting point and supplement for FA, which does not have enough details. I recommend finishing part 1 videos before start studying, and go through the part 2 videos in the beginning of studying period. However, do not rely on just DIT materials for supplying the details. Overall, it's a good organization tool.

Bottom Line: 7-8/10

2.8 USMLE Secrets

http://www.amazon.com/USMLE-Step-1-Secrets-3e/dp/0323085148/ref=sr_1_1?ie=UTF8&qid=1383610188&sr=8-1&keywords=usmle+secrets

At first glance, this book may seem silly. It's not as comprehensive as First Aid (the multi-step Q&A format addressing only the most pertinent diseases) and organized around essay questions instead of the multiple choice style questioning of the boards. But don't let this fool you. The power of this book lies in its ability to mesh together physiology and pathology so that you walk away with a very clear understanding of the big picture. While Step 1 itself is more of a detail-oriented test, without this solid understanding of the big picture, it will be difficult to understand the complexities of the questions on the USMLE. I used this book prior to my actual boards studying period. It allowed me to identify gaps in my education and consolidated my understanding of each organ system. I would read a few chapters a day and it's so small that I just keep it in a pocket and carry it with me. No notes were needed, the book was a very easy read and you can go through it in 1-2 days if you're in a hurry.

Bottom Line: 9/10 Very useful resource tool for board studying. As a bonus, this book can be used to study for SSEQ's and IQ sessions.

Study Resources by Subject

3.1 Anatomy

I took additional graduate level Gross Anatomy (ANAT 411) and Neurological Anatomy (ANAT 414) courses. After these 2 courses, med school anatomy was a cakewalk. I don't think ANAT 411 is necessary for Step 1 prep, but I think ANAT 414 (offered every Fall) was excellent for Block 6 (Neuro, Psych, & Ortho) and boards. Block 6 is probably when you want to think about Step 1 a little bit and maybe do a few QBank questions here and there. Having almost completed ANAT 414 by the start of Block 6, I had a lot of extra time in Block 6 to look over Step 1 material. Dr. Freeman was awesome, but find out if she is teaching the course this Fall. If she is, I would highly recommend taking it if you have the time. It will make you super strong in Neurology and Neuroanatomy, and reviewing for Neurology part of Step 1 will be very easy.

The anatomy on Step 1 is mainly focused on neuroanatomy, MSK, and anatomy of thorax and abdomen. Imaging will be frequently utilized (X-Ray, MRI, CT, etc.), and cross sections are often tested. Step 1 loves to ask about nerves and innervation (know muscle locations & functions, brachial plexus, common injuries, etc.), cranial nerves (know specific origins & functions, how to recognize deficits, etc.), procedure-based anatomy (LP, thoracocentesis, for example), so definitely be familiar with those. During boards studying, I didn't use any additional books for anatomy prep. I think FA does a good job of summarizing mostly everything you need to know for Step 1, but they don't offer many actual images to practice with.

Here are a few helpful websites:

Comprehensive: <http://netanatomy.com>

Radiological: http://www.med.wayne.edu/diagradiology/anatomy_modules/Page1.html
<http://www.anat.stonybrook.edu/HBA531/RadiologySelfTest/indexnorm.html>

Models: <http://daphne.palomar.edu/ccarpenter/Models/model%20index.htm>

Head & Neck: http://www.lumen.luc.edu/lumen/meded/grossanatomy/x_sec/h_n/main_hn.htm

Brain MRI: http://headneckbrainspine.com/web_flash/brain_mri_ml.swf

Neuroanatomy: <http://www.columbia.edu/itc/hs/medical/neuroanatomy/neuroanat/>
<http://library.med.utah.edu/WebPath/HISTHTML/NEURANAT/NEURANCA.html#1>

Cranial Nerve: http://library.med.utah.edu/diganat/SOM/unit_3/lec/CN%20tutorial/CN_Tutorial.html
<http://www.neuroanatomy.wisc.edu/virtualbrain/BrainStem/14CNVII.html>

MSK: <http://www.rad.washington.edu/academics/academic-sections/msk/muscle-atlas>

3.2.1 Behavioral Science: High Yield Behavioral Science

http://www.amazon.com/High-Yield-Behavioral-Science-Series/dp/1451130309/ref=sr_1_1?ie=UTF8&qid=1383610213&sr=8-1&keywords=high+yield+behavioral+science

The biggest strength of this book is how comprehensive it is yet it is extremely short and can be read entirely in one afternoon. That is perfect for when you have a condensed study period. However, there were not any practice questions at the end of the book to use. For my boards studying period, I spent one day and read through the book.

Bottom Line: 9/10 This is all you need for the boards in this subject!

3.3 Biochemistry

3.3.1 Lange Biochemistry and Genetics Flash Cards, Baron

http://www.amazon.com/Lange-Biochemistry-Genetics-Flash-FlashCards/dp/0071765808/ref=sr_1_1?ie=UTF8&qid=1383610361&sr=8-1&keywords=lange+biochemistry+flash+cards

The biochem flashcards organize pathology according to biochemical pathway (for example, glycolysis, TCA, etc.) and include only the essential information necessary for Step 1. Each pathway has an overview card that explains the purpose of the pathway and how it relates to other pathways, the substrates needed, the substrates produced, and the number of electron carriers (NAD, NADP) that are used. The overview cards also list pathology by pathway. Similarly there is a section on genetic disorders that is organized by mode of inheritance. Overall they are more organized than the biochem chapter in First Aid. The information is not identical to that in First Aid. Most of the things in First Aid that are not on the cards are not necessary for Step 1. Some people got by using only First Aid and others by using only the cards. It is not necessary to use both but I would recommend going through the cards at least once and comparing them to First Aid. I preferred the cards to First Aid because they were organized better, were more conducive to rapid recall, and did not include unnecessary information. Overall you could probably use either one but the cards have the edge for the reasons given above.

Bottom Line: 7/10

Second Opinion: 10/10. These babies are worth their weight in gold. Each concept is broken down in a well organized way and on the other side there's a small vignette to show you how these concepts will be presented in question format. An absolute must-have if you're feeling apprehensive. Go through these at least 2 times and then flip through them on a regular basis to keep them in your head.

3.3.2 High Yield Biochem, Wilcox

http://www.amazon.com/High-Yield-Biochemistry-Series-Bruce-Wilcox/dp/0781799244/ref=sr_1_1?ie=UTF8&qid=1383610380&sr=8-

[1&keywords=high+yield+biochemistry](#)

This is all you need to know in biochemistry in terms of normal topics. However, it lacked a lot of detail in the biochemistry pathology that you see in First Aid. Also, there are not really any practice questions; I would not recommend this resource for Block 3. For my boards study period, I read this book in 2 days, but it was not helpful in terms of pathology. Overall, if you want something comprehensive, do not get this. Otherwise, I'd highly recommend it if you need to refresh on biochemistry.

Bottom Line: 5/10

3.4 Microbiology

3.4.1 Microbiology Made Ridiculously Simple

http://www.amazon.com/Clinical-Microbiology-Made-Ridiculously-Simple/dp/1935660039/ref=sr_1_2?ie=UTF8&qid=1383610406&sr=8-2&keywords=microbiology+made+ridiculously+simple

This book was very comprehensive and I really enjoyed the memory tricks it provided. The tables were a bit too detailed for the exam and it was a little too long for the study period. It is very useful for Block 5. For test studying period, I read through the entire book in 3 days. It might have been a little too much reading, but it really helped me on the exam.

Bottom Line: 8/10

3.4.2 Lippincott's Microcards: Microbiology Flash Cards, Harpavat

http://www.amazon.com/Lippincotts-Microcards-Microbiology-Harpavat-Edition/dp/145111219X/ref=sr_1_1?ie=UTF8&qid=1383610434&sr=8-1&keywords=lippincott+microbiology+flash+cards

Another one of those must-haves. These cards have just the right amount of information covered by UWorld. The best part is the organization: they are exceedingly well organized by the classification system, which has its own card in front of each major category (fungi, G-, G+, parasites, etc.) I would make the argument to memorize those cards as well, because inevitably UWorld and USMLE will ask you "what G- lactose fermenter caused this infection?" and you'll kick yourself for not knowing the culturing techniques for each pathogen. Areas the cards cover well: organization, culturing specs, pathogenesis, vignettes for typical presentation. Areas not covered well: treatment (mostly done well, but not in cases when multiple regimens can be used). Repetition is key here. The first run-through took forever, but it gets faster and faster when you cherry-pick areas you are weak in.

Bottom line: 10/10 You'd be surprised how much you forget when you don't pick up these cards for 3 weeks. So don't do it.

3.5 Pathology

3.5.1 Pathoma

<http://www.pathoma.com/>

Strengths/Weaknesses: Pathoma is an excellent resource. The book is concise yet contains almost everything, if not everything, you need to know for pathology on Step 1. The chapters are also organized in a very logical manner and are written very clearly. By comparison, Goljan is a much larger, much more comprehensive text with far more detail than is often unnecessary for the purposes of board exams. The Pathoma videos are not merely a reading of the text. Sattar is absolutely outstanding at explaining the text in the clearest way possible such that you understand and remember it. He also uses illustrations that I highly recommend you copy in the margins of your text. You will see them in your mind's eye when taking the test and you will also hear his voice answering some of the questions for you.

Use before board studying period: It is important to use Pathoma BEFORE you begin studying for boards. It is an excellent way to consolidate your learning. I recommend using it after you have completed your reading for IQ from the larger texts such as Robbins, UptoDate, Harrisons, Goljan, etc. Doing this is also useful for boards study because you will not be using an unfamiliar resource when you begin studying for Step 1. I recommend first watching the videos while following along in the text but without reading it closely, while drawing in any illustrations he shows on the video. Then go back and read the text closely while referencing what you drew in and recalling what he said in the video. It will stick.

Use during board studying period: I recommend using Pathoma in a similar way for board study. The first time through, just watch the video while following the text, then read it more closely. How to use it the second and third times through are more of a matter of personal choice. I personally watched the videos and read the text the second time through, and the third time I just read the text. Going through all of Pathoma at least twice during the Step 1 study period is an absolute must.

Bottom Line: 10/10.

3.5.2 Pathoma v. Goljan

In my opinion, Pathoma is superior to Goljan in that it's more "user-friendly", i.e. better organized and offers only the most high yield information. While Goljan might seem more dense, there were only a few times in my study cycle when I've referred to Goljan to get information not covered by Pathoma. And to be honest, it takes tremendous work to memorize the thousands of details in Pathoma anyways.

Bottom Line: Whichever resource you use for pathology, stick to it. While it's tempting to think "I'll just use both of them", more is not better in this case. Both resources have their distinct style; it'd take you 1-3 times going through these pathology resources to truly master the material and you just don't have enough time to do that for both texts.

3.6 Pharmacology

3.6.1 Lange Pharm Cards, Baron

http://www.amazon.com/Lange-Pharmacology-Flash-Edition-FlashCards/dp/0071792910/ref=sr_1_1?ie=UTF8&qid=1383610486&sr=8-1&keywords=lange+pharmacology+flash+cards

These cards had just the right amount of detail for Step 1, without going overboard. I know a lot of people who had “Pharmacards” (the huge set on card stock), but those cards are overly detailed. What I really appreciated about these cards was that they were broken down into topics and classes rather than simply alphabetized (i.e. all antibiotics were together, and then they were broken down into B-lactams, protein synthesis inhibitors, etc.). Also, I was able to match them up with First Aid’s sections fairly well.

Pharm was something I struggled with from day 1, and it wasn’t until about 1-2 weeks before my test that my pharm Q-bank stats finally started increasing. For Step 1 prep, I knew I was going to need to commit myself to consistently study pharm because I really dislike the topic. Pharm can be interesting and actually makes sense once you have a good grasp of the physiology, but you still have the task of learning side effects, memorizing receptors, and learning the indications for specific drugs. I spent about 1-2 hours each morning on pharm from the start. It was slow going at first, especially in the cardio drugs. One thing I wish I had done at first was memorized the “kiss and kick until you’re sick of sex” acronym from first aid, then started with these cards. I went through the cards once without highlighting or underlining, and the second time through I compared it to what First Aid had and added any information to the cards I thought was helpful. I also made sure to add info from the Q-bank questions I had trouble with to the cards so I was able to learn from my mistakes a little easier.

These cards have a vignette on the front (not useful for me beyond reading them the first time), and then list the generic drug name (no brand names are on Step 1) on the back with the mechanism, clinical uses, side effects, and other information. There were maybe 5-10 drugs in first aid that I needed to add to these cards, but these cards made learning pharm a little less painful. The last 3 weeks of studying, I cut the deck in half, and went through half of the cards each day quickly to keep the info fresh in my head. I’d pull cards I struggled with and kept them out for the day to review later on if I felt I needed it. Rather than staring at chapters in First Aid to try to memorize pharm, I was able to keep a relatively small pile of drugs I found exceptionally difficult on my desk throughout the day, and if I got bored reading First Aid or Pathoma, I could flip through them to see how well I remembered them that morning. For any subject you dislike, make sure you work on that one from the start, or else you’ll find yourself stuck with the subjects you dread for the last few weeks of studying.

Bottom Line: 9/10

3.6.2 Lippincott PharmCard, Johannsen

http://www.amazon.com/PharmCards-Review-Cards-Medical-Students/dp/0781787416/ref=sr_1_1?ie=UTF8&qid=1383610510&sr=8-1&keywords=lippincott+pharmacology+flash+cards

This is a pretty comprehensive list of drugs that I was pretty happy with. In some situations, it provided too much info while in other cases, there wasn't enough detail. Overall, what this set of cards does is provide a VERY solid foundation for pharmacology. In terms of organization, it's based on pharm categories. Instead of vignettes, it offers neat biochemical and mechanism diagrams that I find helpful, particularly the adrenergics. There's not than much superfluous information; the only thing I'd advise against is memorizing their list of side effects. Inevitably you'll find whole categories of pharm never covered before; in these cases, DO NOT attempt to memorize each card individually without a comprehensive understanding of the physiology underlying that category of pharm (e.g. adrenergics, anti-arrhythmics, anti-neoplasms). For that, I recommend drawing diagrams on blank papers and filing those diagrams in with all the drugs in that category.

Bottom Line: 9/10

3.6.3 Lange v. Lippincott

Another classic debate in board studying: what set of cards to use. Having owned both sets, I would say the amount of details required is closer to Lippincott than Lange; however, in this case I would recommend getting both sets. Use the Lange as a resource to build up your pharm foundation. Then, when you are comfortable with that level of detail, switch over to the Lippincott set. The organizations of both sets are almost identical, so it makes switching sets relatively easy.

Bottom line: 1) Don't memorize side effects straight from the cards-they like to mention the common ones like "nausea, dizziness", which is not very helpful when every other drug have those side effects as well. The USMLE test likes to go for rare but serious side effects (which are also unique to a particular drug, making that drug easy to ID on a question), and FA does a good job of picking up subtle but high yield side effects; my advice would be to memorize only the side effects of drugs that show up in FA. 2) Don't be surprised when pharm concepts/details appear on the test/UWorld that are beyond the scope of either pharm card sets; in particular, watch out for the benzodiazepines and anti-TB drugs. In those situations, remain calm, write those details down and move on. Don't try to find an even more comprehensive source; it's too low yield.

3.7.1 Physiology BRS Physio

http://www.amazon.com/BRS-Physiology-Board-Review-Series/dp/0781798760/ref=sr_1_1?ie=UTF8&qid=1383610524&sr=8-1&keywords=brs+physiology

This is a very comprehensive book for physiology of all of the organ systems. It was especially helpful in GI, Cardio and Respiratory. There were also practice questions at the end of each chapter, which were helpful. However, I felt that Endocrine and Repro were particularly weak. This book could have been used in lieu of Costanzo during preclinical training with the exception of Endocrine and Repro for physiology. For my board studying period, I read the chapters that corresponded to the subject I was studying for the day and used First Aid as well at the same time.

Bottom Line: 5/10 For brevity, it is worth it; however, do not waste your time with the last chapter.

Sample Study Plans

4.1 The Wearn Method

(full credit to Zach Rubin for the initial description)

The Wearn Method is a 7-8 week study period.

Materials used: Biochem flashcard, Microbiology flashcards, Pharmacology flashcards, First Aid, Pathoma, UWorld, BRS Physiology

Weeks 1-3: We began with a systematic review of all the chapters in FA. Each chapter took about 1-2 days. At 8AM we started with one hour of pharmacology and one hour of microbiology flashcards. The cards are divided into sections and you cover one section per day (which roughly translates to an hour's worth of work). From 10-12, we read through the relevant FA chapter and take notes. After lunch, we finish up FA and work on the relevant Pathoma chapter, both reading and listening to the videos. After the review, we do 1-2 sets of UWorld targeted specifically for the subject we're studying. We eat dinner, go through the questions we got wrong, and review whatever area we were weak in. We take about an hour to relax and sleep by 10-11. Sundays were "break" days, but most of us used that time to do light studying. At the end of week 3, we took an NBME test to assess where we were.

Weeks 4-5: Week 4 was dedicated a re-review of the majority of subjects that we were OK in. Week 5 was dedicated to studying the specific chapters in FA that we were weak in based on our NBME results. Having finished biochem as a chapter in the first 3 weeks, we now add 1 hour of biochem flashcards in the morning. We then read and study First Aid and Pathoma again. In addition, we now do 2-3 sets of UWorld. At this point, we do a mixed of targeted and mixed sets. At the end of Week 5 we did another NBME.

Weeks 6-7: By now, we are just cherry picking what we read from FA. We still do 3 hours of flashcard review every day. The number of UWorld sets have gone up to 3-4 and they are all mixed, timed sets. They are done in series in order to practice our stamina. Also at this point, we have finished UWorld in its entirety and reset our system to redo them and the majority of learning should be done from UWorld.

At the end of week 7, we finished UWorld once at least and gone through a bit of it the second time. Each FA chapter and Pathoma was covered at least twice.

The key to this plan is repetition of the material, with a strong component of it focusing on going through micro, pharm, and biochem each day. Keep in mind that this plan is highly ambitious and it's very likely you can't get through everything that needs to be done for that day.

4.2 The Robbins Method: How to Study for the Boards by Yourself

I personally would recommend studying alone. The majority of learning will be done by completing problem sets and reviewing material in a review book such as First Aid. I find studying with other medical students to be anxiety inducing and not very necessary for memorizing the large quantity of material for the boards. The boards are all about pattern recognition: Being able to define what

they are alluding to (the Dx usually) and then making the logical jumps that they want (ie what drug to treat, or some fact about that drug, or some other fact about what they are alluding to, etc). So the approach to studying is two-fold. Recognize the way they ask questions and know facts. So most people's focus is question banks and review material.

I began by creating a weekly schedule which divided what topic I studied each day and creating a daily schedule which divided my time into reviewing First Aid, micro and pharm cards, Pathoma lectures, and problem sets.

Full day	
6:10 – 6:40	Wake-up, eat breakfast
6:40 – 7:00	Travel to library (listen to goljan)
7:00 – 8:00	Pharm cards
8:00 – 11:30	First aid / go over practice test
11:30 – 12:30	Micro and lunch
12:30 – 14:30	46 Questions
14:30 – 16:30	Pathoma/USMLE step 1 Secrets
16:30 – 18:00	Break (exercise/focus on weaknesses)
18:00 – 22:00	72 Questions (quick dinner in between sets)
22:00 – 23:00	Travel home (listen to goljan), sleep

Half Day	
7:30 – 8:00	Wake-up, eat breakfast
8:00 – 9:00	Practice test part 1
9:00 – 9:15	Break
9:15 – 10:15	Practice test part 2
10:15 – 10:30	Break
10:30 – 11:30	Practice test part 3
11:30 – 11:45	Break
11:45 – 12:45	Practice test part 4
12:45 – 13:15	Eat lunch
13:15 – 15:00	Review weak material

Sources I used were First Aid, Lippincott pharm cards, micro cards, Pathoma lectures, Goljan lectures, USMLE Step 1 Secrets, Kaplan test bank, and U-World Step 1. I only finished half of Kaplan questions and gave up on them. I thought the answers were poorly written. Save U-world for the last, but absolutely make sure you finish every single question and retake all the questions you've gotten wrong. Expect to spend 1.5-2 hours per 44 question/set. Pathoma lectures were a great way to switch up the form of reviewing (listening vs reading). I used Step 1 secrets to cover topics I thought I was struggling in because they give very good case based scenarios and concise and thorough answers. I made CDs of Goljan lectures and listened to them on my drive to the library.

Final words of advice: You only need 6-8 weeks of study. Most people I talked to would say you peak in your studying and you begin to lose the information. So anything after 8 weeks I would say is detrimental. Do not lag, do not get nervous, do not delay or reschedule your exam. You spent a lot of time studying and you will do well, so don't psych yourself out when you get closer to your test date. Only move back your test date if you haven't finished U-World. Also don't expect to get adequate or useful studying done during research block. I would recommend blocking out 6-8 weeks and dedicating your time for that.

4. 3 The Satcher Method: How to Study for the Boards in 1 Month

Materials:

- First Aid - main reference
- Pathoma - good video lectures
- UWorld QBank -
 - Question bank that is probably most representative of the difficulty of the actual exam
 - I prefer using untimed tutor mode mostly - take the time to read the explanation of each answer
 - Mark questions that are on topics you feel you need to review, as well as those that are marked with a 'high-yield' asterisk (*) in the answer explanation - you can draw random questions from only those you've marked for later review
 - Filtering questions by those previously marked Incorrect is also a useful tool
 - A little over 2000 questions
- NBME Practice Tests -
 - For the most part: shorter, easier questions than on the actual exam
 - Good for overall review
 - Anecdotally, fairly good predictor of actual score (within a reasonable +/- %)
 - Note: the after-test assessment will list all the questions marked incorrectly, but will not provide correct answers or explanations (or questions marked correctly, for that matter)
 - 200 questions per test

Week 1: Preliminary phase (semi-optional)

Basic Formula: 1st read-through of First Aid

Sample breakdown:

- Day 1 - Behavioral Science, Biochemistry
- Day 2 - Microbiology, Immunology
- Day 3 - Pathology, Pharmacology, Cardiovascular
- Day 4 - Endocrine, Gastrointestinal, Hematology/Oncology
- Day 5 - Musculoskeletal, Renal
- Day 6 - Neurology, Psychiatry
- Day 7 - Reproductive, Respiratory

This initial run-through of First-Aid should be a refresher course of the fundamentals, and the time it actually takes can vary based on preference, reading speed, note-taking, etc. It's also important to have an idea of where things are in the book to help with the next phase of studying.

Weeks 2-4: Main phase

Basic formula: Pathoma lectures + annotation in First Aid + U-World questions

Total Pathoma video time: 34:05 (HH:MM)

1. Cell biology- 2:34
2. Inflammation/Immunology - 2:52
3. Cancer - 2:19
4. Hematology - 1:51
5. Anemia - 2:46
6. Leukemia/lymphomas - 1:57
7. Vascular disease - 1:04
8. Cardiac disease - 1:33

9. Pulmonary - 2:16
10. GI - 2:37
11. Liver and Pancreas - 1:05
12. Renal - 1:35
13. Female reproductive - 2:29
14. Male reproductive - 0:41
15. Endocrine - 1:34
16. Breast - 1:00
17. CNS - 1:36
18. Musculoskeletal - 1:16
19. Derm - 0:48

Since the sections have varying video lengths, there are several options:

- 1) 1 section per day, with a few lighter days + 2 extra days
- 2) Combine 2 shorter sections into 1 day and/or
- 3) Split longer sections into 2 days
- 4) Etc...
 - Annotating the relevant sections in First Aid shores up some of the holes in the book and provides a master reference for final review
 - U-World questions should ideally be a combination of whatever section was covered in a given day + random selection from all questions
 - Aim for at least 100 unused questions/day to complete the ~2000 questions within 3 weeks
 - In addition, it's helpful to redo missed questions from the previous day for more repetition/review

Week 5: Review phase

Basic Formula: Final review of annotated First-Aid + U-World Marked Question Review + NBME practice tests

(I've heard it argued that one shouldn't take an NBME in the final week of studying for really vaguely-described psychological reasons, but I disagree)

- Day 1-5: Re-reading of First-Aid and taking 5 NBME practice exams (200x5 = 1000 + 2000 U-World questions = the magic 3000 question mark typically suggested), any marked or remaining U-World questions
- Day: 6-7: Some combination of cramming or resting as desired

General Advice

5.1 Advice for Pre-Board Studying

5.1.1 Research Before Boards

Pros: Delaying the inevitable for a few months, potentially more time to study, do more questions, etc.

Cons: Potentially more time to study, means potentially more time to waste not studying.

Depending on how involved your research project, and how strong your work ethic is, it can be difficult to motivate yourself to study after a full day of research. Boards are farther away from block 5 and 6 material, so you may need to brush up on neurology and neuroanatomy more-so than if you decided to do boards first. I personally forgot most of the block material a few hours after SSEQs, so I didn't feel this was important to me.

If you're lucky, you'll be able to spend between 3-5 hours per day studying after work. Depending on your research project, how much of a time commitment is expected from you, how much downtime you get during the day to flip flashcards / watch Pathoma etc. etc. all factor into whether this is a feasible option for you or not. Personally, some days were lighter than others, so I had ample time to study and play.

I structured my studying on Organ Systems (as opposed to General Principles), watching about an hour of Pathoma videos followed by a set of Kaplan Qbank 46 questions in timed-tutor mode of the relevant system, reviewing/annotating First Aid as I went through the questions. If you have to drive to your research lab, listen to Goljan on the way to save time. If you're a flashcard person, Biochem cards (Lange), Microbio cards (i.e. Lippincott's), and Pharmacology (Lange, Pharmcards) cards are generally considered to be very helpful; I personally used one of those flashcard making websites with iPhone support and made my own flashcards and reviewed them before bed.

Though one block (46 questions) per day may not sound like a lot at first, keep in mind it takes approximately 1 hour to go through one entire block, and then another 1-3 hours to review or annotate the answers into First Aid depending on how thoroughly you go through the explanations. Also, keep in mind that $46 \text{ questions} * 7 \text{ days} / \text{week} * 7 \text{ weeks} = 2254 \text{ questions}$ (Kaplan = 2200 questions, UWorld = 2077 questions). Though people stress about this incessantly, your Qbank score is really insignificant during this time, it's more of a matter of understanding what key phrases in the stem leads you to the answer, why the answer is what it is, and why the wrong answers are wrong.

Bottom Line: Looking back, I don't think I lost anything by doing research first. Yes, you are technically farther removed from Blocks 5 and 6, and yes, you are then farther removed from the 'study hard mentality/environment', but I think these are more than compensated by the extra time you get to study provided that 1. you have the discipline to maintain a study schedule throughout your research block, 2. your research/ extracurriculars are not so time-consuming that you won't have any real time to study, and 3. you won't burn out by the time the real deal comes and you are still able to focus 100% on boards studying. Final food for thought: if you're the type who has been studying for boards throughout second year, the extra time of a research block is probably not as helpful as you would imagine. You are coming in with a strong knowledge base, and 6-8 weeks is more than enough to prepare for boards provided you can hit the ground running. (On the other

hand, I really don't think it would hurt much either.) However, if you're like me, and you took it a bit more casually (to put it gently) throughout the first two years, and need more time to solidify some fundamentals, I think the extra time was crucial to get to a similar playing field as some other students beginning their dedicated board study time who enter with already solid fundamentals.

5.1.2 Research After Boards

Pros

- 1) You're still fresh from blocks 5 and 6 (heavily emphasized on the test) and in the "study" mood. Strike while the iron's hot.
- 2) If you are serious about your research project, you can devote your full attention to it. It's entirely possible to balance out doing a good research project and setting aside time for studying. However, when the project demands more time and/or commitment than anticipated, that's when the panic sets in and tempers get short. Why risk short-changing the research project?
- 3) Step 1 leaves you drained and some R&R during research will charge you up for third year. Your surgery rotation will make studying for the boards look like a walk in the park (and I'm talking the nice parks, with no crazy steep hills or creepy muggers).
- 4) If push comes to shove, you can "extend" your study period by a few days into your research block, provided you talk to your PI and work extra hard to make up for it later.

Cons

- 1) People freak out about not having enough time to study. In my experience, 6 weeks is more than enough, particularly when you've done a little bit of studying prior to your actual studying block. More importantly, anything more than 6 weeks and you run the risk of burning out. Because the USMLE is such a detail-intense test, a good metaphor is to think of it as running up a slippery waterslide. Low-intensity studying is good for topics you've never seen before but it will only get you so far before the rate of attrition equals the rate of retention. To get higher on that metaphorical waterslide, you need that intense study block of 6-8 weeks to boost yourself up and you need to take the test while you still have the maximum amount of retention. Use any more time and you risk tiring out and backsliding, so in this case, more is not always better.
- 2) Burned out from block 6: can't help you there. Either power through or take a small vacation, but this might be a problem for some people, so keep that in mind when you plan your schedule.

Verdict: the "traditional" plan for most students, straight-forward and works pretty well. I found it refreshing to work my butt off and rest for 2 months doing low-stress research stuff while getting ready for third year. I don't think I was short-changed in terms of study time.

5.1.3 Early Core Before Boards (Neuro)

Pros

The neuro/psych core made that portion of the boards much easier; I didn't study for them during boards and it was my best section. Studying for the boards and commanding a broad range of knowledge also helped me on the wards.

Con

The rotation was more difficult. Also, you are competing with upper-classmen who are much more experienced; it was great having them show you the ropes but it's difficult to do well against people who have had a year's worth of experience under them.

Verdict: Ultimately my recommendation is you should do an early core if 1) you really want to do some clinical stuff because you're tired of basic science stuff and 2) if you feel ready for the new challenges of clinical work, but I don't think it's for everyone. Overall, the early core helped for boards but hurt for shelves (or would've been helpful to have done boards before the shelves).

5.2 Advice for the Board Studying Period

5.2.1 Love the test

You cannot be good at something that you hate. So don't hate it. Derive pleasure from learning the material, from doing well on your sets, whatever it is that keeps you going because you will live and breathe this test in the 6-8 weeks you're studying for it. In the same vein, you cannot fear this test. We avoid what we fear and embrace what we love, so good luck trying to plug 14 hours/day at something you're deathly afraid of. Bottom line: trick yourself into loving the test.

5.2.2 Stick to a few well-chosen resources

Why? To build familiarity. Similar resources present the same information 95% of the time, but in different formats. So why waste time learning how information is organized in several different texts when you can stick to one text and supplement it with other source for the remaining details? More importantly, I guarantee you're going to miss things on the first time running through a resource, so for high-yield resources like FA and Pathoma/Goljan, you need to go through them 2+ times in order to extract as much information as possible.

5.2.3 In Dealing With Stress

- 1) Consult people for advice on how to best approach studying, not how they did on the last practice NBME.
- 2) Re-orient your thinking: it doesn't matter what your UWorld percentages are so long as you learned everything you needed to know from those questions.
- 3) Leave some time at the end of each day (or 1 day a week) to de-stress to avoid burning out.
- 4) Plan a relatively regimented schedule and keep yourself to it.

5.2.4 Study group v. Studying Alone

My thoughts on a study groups:

The pros: A good study group promotes an atmosphere of intensity that forces you to study, even when you're feeling lazy. This will be pretty crucial when you're 6 weeks in and ready to just quit because it's so damn painful. Study groups allow people to bounce ideas off of each other

and teaching/teach-back can happen; this is useful for consolidating knowledge. A study group will expose gaps in your knowledge and you nearly always learn a thing or two from your colleagues. The cons: You get on each other's nerves after a while. Yup, it'll happen when the stakes are high and you're tired/frustrated/scared. Groups tend to be more less flexible to change than individuals, so if you want to change a particular aspect of a study plan, you'd have to get the other members of your group on board. We are pretty competitive individuals and inevitably in a group, we will compare how we did on UWorld sets or the NBME practice exams. Unless everybody gets the exact same score, confidence will be shaken and egos will be shattered. So be prepared for that. Bottom line: Despite some of the negative aspects of group study, I highly recommend it. I would personally recommend a small group of 2-4 people, with sufficient flexibility to allow members to direct their attention at their own study while retaining the best features of group study (able to consult others, a good study atmosphere, exposing knowledge gaps.)

5.2.5 NBME Practice Exams

How to get them: go to <http://nsas.nbme.org/home>, and you want the "Comprehensive Basic Science" practice tests.

Verdict: So these are more milestones that assess how you've been doing rather than teaching tools like UWorld. For one thing, they don't give you explanations (for explanations, you have to go to online forums and search individual questions) and you don't get to see the test questions after you're done. In tests without "Expanded Feedback", they only give you a numerical score and a breakdown of how you did by topics. If you choose to take a test with "Expanded Feedback" (they cost more but I highly recommend them), the feedback will allow you to see questions that you've missed (but still no explanations, and they don't give you the correct answer). Useful but of limited teaching opportunity. Word of caution: they bruise your ego easily, so be thick-skinned. In particular, test 11 was a shocker for many people because of the way the test was curved. I personally don't think these tests were accurate in predicting score outcome, so don't take them too seriously.

5.2.6 Switching Test Date

Moving Up the Date: If you think you're ready to take the exam, by all means do it. Don't hesitate because you feel obligated to complete the 6-8 weeks of standard exam studying time course. If you know you are peaking, strike while the iron is hot and take the test when you are at your prime. Dawdle and run the risk of backsliding (that is to say, you aren't learning anything new and your studying is merely to retain current information).

Pushing Back the Date: I can tell you I was awfully tempted to take this option, as were my study partners. Why? The trap lay in thinking that extra time will buy you a higher score. What we failed to realize at the time was that the intensity of the study far outweighs the amount of studying. The number one reason for trying to delay the test: not thinking you are ready. And the number cause of that kind of thinking? Low test scores on practice NBME tests. My advice is this: don't take the NBME exams too frequently since they are of little educational value and don't take the predicted score too seriously (they mostly underestimate, but I've seen scores higher and lower than expected). Also, don't compare practice test scores, as many people are tempted to do.

In order to seriously contemplate pushing back the test date, you need to have a concrete reason and a concrete objective. In my opinion, having a low NBME practice test score is not a valid reason for delaying the exam. More concrete reasons would be: "I haven't finished the U-World question sets", "I am weak in cardio and need more time to study that organ system", or "Something came up and I'm short-changed a week in studying for boards". Having a concrete reason for delaying the test allows for a concrete objective in utilizing that time. "Bumping up my NBME score" is NOT a valid objective, because there is no guarantee you'll succeed, and if you do score lower than the previous one or fail to meet your objective, what then? Likewise, "I'm burned out and need more time to study" is not a good objective either-if you're burned out now, what makes you think extra time will make you more productive on a day-to-day basis? What you're really saying is you're going to stretch out the remaining study period into a longer study period so as to do less per day. It will decrease your overall intensity in studying and THAT is very dangerous. Concrete objectives would be for example "I want to redo all the questions I got wrong on UWorld" or "I will go through First Aid one more time in addition to questions", or "In addition to keeping up with the rest of the organ systems, I will put more effort into learning the cardiovascular system, specifically the drugs." Once you do delay the test, hold yourself accountable to that time.

5.3 Advice for the Day of Exam

5.3.1 Notes

You can actually look at your notes in your locker in between sections, when you are on "official break". You can also look things up on the internet if you brought a laptop or smart phone. If you don't believe me, go ask your test proctor on test day and have them look through regulations. A word of caution: while it might be useful to look at notes in between sections, I personally avoided doing a lot of this. You instinctively want to look up questions you guessed on because you want instant gratification and validation. But the problem is: if you guessed wrong and you found out in between sections, it would severely affect your morale for the remainder of the test.

5.3.2 A Case of an Emergency

"Here's a story of an unlikely circumstance that actually happened to me the day of my exam. Keep in mind that this is highly unlikely to happen to you, but in case it ever does, I hope this helps you figure out how to navigate yourself if such a similar situation arises.

I got to my exam site about a half hour before it was supposed to start and they allowed me to take it early. After the tutorial screen, the exam screen went blank and then an error message occurred. I got a proctor to look at the computer and he tried to reboot the software. It didn't work. After 30 minutes, he was told by a helpdesk from Prometric that I had to reschedule my exam because there was a 'global problem.'

At first, I was told to call Prometric to reschedule my exam, which I did. They told me that I could wait outside of an exam room at another testing site about 30 minutes from the site I was currently at the following morning and hope to get in. This did not make sense to me and turned out to be

the wrong thing to do. If you are told to reschedule your exam, get a ticket from Prometric, but call NBME first!

I contacted NBME and they did not know what to do at first. It actually turned out to be a problem that day for the entire country. After several calls, I was given an individual case manager who then told me that I had to get a new scheduling permit from NBME which could take up to 10 business days. I cannot stress enough that you have to be proactive about getting a new scheduling permit. I kept calling to get a new permit so that they could give me a new one roughly 24 hours after the initial incident. Keep in mind that you have to schedule your exam months in advance to get a seat.

After getting a scheduling permit, I got extremely lucky and was allowed to get an emergency seat at a Prometric site roughly 2 hours away by car the following day, so I took my exam 48 hours after it crashed everywhere.”

As a corollary to the above student’s story, another student ran into the same exact situation on the same day, but at another test site. He remained calm and decided to wait it out, since he was not interested in re-scheduling his test. After 2 hours, the software was rebooted and he was allowed to resume his test at the site.