# An approach to Step 1

In a time efficient manner:)

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Feel free to reach out with any questions



## Disclaimer

I'm one person and everyone has their own preferences and adjust/ follow your own path!

That being said a few things are true for mostly everyone based on the the research

- Active recall
- Spaced repetition

The rest of this guide is how I personally follow those two principles



- Recommend starting early, focus on learning things through and well the first time
  - The things we learn in step 1 are important for understanding the treatments and why we do things
    - Not only for patients, but also step 2 and shelves
- Gather your resources ahead of time
- Do not over engineer your plan to the point it is hard to follow
  - o I'd aim for rough, weekly goals to build in flexibility
- Implement breaks, you consolidate info best when giving your brain actual, nice breaks
- Prioritize friends/family, food, and sleep:)
- Sounds dumb, but when it gets hard to focus, knock on your door and pretend you're seeing real patients / remind yourself why you are studying







- Phone in an entirely other room
- https://selfcontrolapp.com/ can pick websites to block for however long, really helpful
- <a href="http://owlocr.com">http://owlocr.com</a> can extract text from the screen/any photos which is super useful
- Blue light glasses and the 20 seconds look at 20 feet away to reduce eye strain



### Mindset & Test taking strategy

- Mindset is half the battle!
- Part of test taking strategy is <u>confidence</u> and being <u>logical</u> and smooth
- Yes you will be nervous during the real thing/practice tests, but trust the hard work you put in!
- Having a positive mindset will help you keep it moving when you are stressed on a question,
- Confidence is key to not overthink too much and change too many correct answers to the wrong answers
  - This point is incredibly important on NBME + real



- Important to note: Uworld is great but asks questions a bit differently. My strategy is based on the NBME (the real test)
- Read last sentence first to prime yourself to search for the right answer. You may not need to read the rest of the vignette if it's asking what is the mechanism of this drug etc. However, if the question could be more than one thing, DO read all of the rest of the question
- Skip questions and leave them blank to come back later.
  Rather get 7 home runs right than drain all your time on 1-2
  tricky impossible questions. Plus there's tons of experimental
  questions on the test so tell yourself it's experimental and
  keep going, do not get hung up on a few questions.

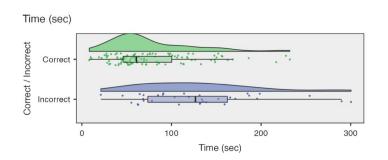




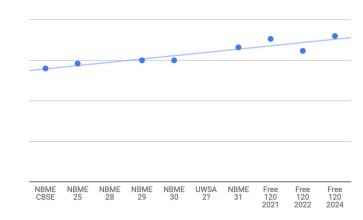
- NBME your answer has to be the best answer, meaning answer like a lawyer and also in real life. Do more pieces of info go with option A? Then go with it! Sometimes irl patients have a non textbook finding but that doesn't mean the bigger picture changed. Biggest adjustment I'd say from UW
  - It's testing you if you're a safe doctor, not trying to necessarily trick you so go with your gut
- Don't pick a weird answer you never heard of unless you can rule out the other options confidently
- Attempt to link it back to basic physiology/embryology/pharm interactions etc if you have no idea what the question is about
- Peruse the <u>NBME writing guide</u> or <u>watch a summary video on it</u>
- Don't overthink to the best of your ability
- Remind yourself everything you miss now is something you prob won't when you take the real thing and are a real doctor

# Interesting graphs to illustrate why/how my scores changed over implementing these strategies

NBME



This is why I say to move on and move on quickly when you don't know



UW (learning tool only)



As you can see, it's okay to take **Ls** on UW blocks and even some NBME practice exams

# Example: Retired NBME question (real NBME practice neuro shelf Q, actually quite step 1-ish)

- 1. A 72-year-old man with a **10-day** history of **fever**, nausea and vomiting, and **progressive** confusion remains hospitalized **because his symptoms have not resolved despite treatment with broad-spectrum antibiotics.** He has a 6-year history of severe emphysema treated with courses of **corticosteroids** during the past year. Medications include intravenous ceftriaxone and ampicillin, albuterol inhalers, theophylline, and prednisone. He is confused and stuporous. His temperature is 38.9°C (**102°F**), pulse is 84/min, and blood pressure is 142/86 mm Hg. Physical examination shows **meningismus**.An MRI of the brain shows **diffuse meningeal enhancement with a basilar** predominance. A lumbar puncture is done; cerebrospinal fluid analysis shows a leukocyte count of **322**/mm3 (**86**% **lymphocytes**), a glucose concentration of **17** mg/dL, and a protein concentration of **212** mg/dl. Which of the following is the most likely diagnosis?
  - A. Herpes simplex encephalitis
  - B. Lyme disease
  - C. Neurosarcoidosis
  - D. Neurosyphilis
  - E. Tuberculous meningitis

#### Color coded on the order I read vignette

- 1. I need to look for clues that will help be differentiate these, this q asking for recognizing only really.
- 2. Lab stuff for later, seeing lots of leuks low glucose high protein. Narrows it down a lot, not going to be viral. Probs fungal or bacterial
- 3. Subacute time course 10 days, We already tried broad spectrum abx. Hmm!
- V high fever. Meningeal signs are present (non spec). Basilar predominance is a big clue
- 5. The paragraph I didn't highlight is mildly important but not what I focused on to solve the question in <90 sec

### **Answer**

So he's an older gentleman with subacute timecourse (time course v important) who has already tried broad spectrum abx. Was giving bacterial or fungal based on CSF but seems like fungal given failure of abx. Can rule out all the viral ones pretty quick. Basilar enhancement on MRI is further buzzword for tuberculosis meningitis.

# Official NBME explanation. I read all of it bc it's useful to see how they describe other diseases in the answer choices

Chronic use of immunosuppressants including glucocorticoids increase the likelihood of tuberculosis reactivation. Tuberculous meningitis typically presents with nuchal rigidity, fever, and altered mental status, similar to the symptoms seen in bacterial meningitis. However, unlike bacterial meningitis which presents acutely, tuberculous meningitis typically shows a subacute presentation. Presence of cranial nerve palsies is also more likely in tuberculous meningitis than bacterial meningitis. Physical examination may show a positive Kernig or Brudzinski sign, indicative of meningeal irritation. Results of laboratory studies will show nonspecific changes including leukocytosis and mild anemia. A tuberculin skin test or interferon-gamma release assay are usually positive, but a negative result is also possible. Cerebrospinal fluid (CSF) evaluation is the initial diagnostic step and will reveal an increased opening pressure, increased white blood cell count with prominent lymphocytes, increased protein concentration, and decreased glucose concentration. Culture of the CSF for acid-fast bacilli may be positive, though the sensitivity of this test for tuberculous meningitis is less than 50%. Radiologic evaluation may show basilar exudates, as in this case, as well as periventricular infarcts and hydrocephalus.

Incorrect Answers: A. B. C. and D.

Herpes simplex encephalitis (Choice A) presents with fever, altered mental status, and neurologic abnormalities, such as seizure, aphasia, hemiparesis, or cranial nerve deficits. Neuroimaging will typically show changes in the temporal lobe. The basilar predominance in this case is more suggestive of a tuberculous meningitis than herpes encephalitis.

Lyme disease (Choice B) caused by disseminated *Borrelia burgdorferi* infection may cause neuropathy and meningitis. However, this would be expected to be accompanied by a rash in the pattern of erythema migrans and history of tick exposure.

Neurosarcoidosis (Choice C) is defined as the presence of neurologic symptoms in a patient with known sarcoidosis. As any portion of the central or peripheral nervous system may be affected, symptoms may stem from cranial nerve palsies, hypothalamic dysfunction, spinal cord involvement, or peripheral neuropathy. This patient does not show other features of sarcoidosis, including pulmonary, eye, or skin involvement.

Neurosyphilis (Choice D) presents with fever, meningismus, ataxia, Argyll Robertson pupil, and tabes dorsalis. Tabes dorsalis refers to infection of the posterior columns and dorsal roots of the spinal cord causing impaired sensation of light touch, vibration, and proprioception along with ataxia. Serologic testing of the CSF for syphilis using a venereal disease research laboratory (VDRL) or rapid plasma reagin (RPR) test is positive.

Educational Objective: Tuberculous meningitis typically presents in a subacute fashion with nuchal rigidity, fever, and altered mental status. Cerebrospinal fluid (CSF) evaluation is the initial diagnostic step and will disclose an increased opening pressure, increased white blood cell count with prominent lymphocytes, increased protein concentration, decreased glucose concentration, and positive culture for acid-fast bacilli.



### Pre-dedicated study plan

- A very strong foundation can be created through high quality resources + lots and lots of questions (bootcamp step 1 style are great similar to UW)
- I'd say for systems, I spent ½ on books/videos ¾ on board style questions and cramming the details for in-house exams in the last week
- Start UW as soon as you have it, start at 5-10 questions and ramp up, will be much easier than cramming it all in the end given there are ~4000 questions
- Be consistent with Anki if you are using it, I found it extremely helpful
  - I made cards/unlocked cards from Anking based on my own incorrects/what I didn't know as well to keep the card burden relatively low
  - By low I mean 20-25 mins in morning and that's all
     :)

#### https://pubmed.ncbi.nlm.nih.gov/26498443/

Results: All students reported using practice MCQs (mean 3870, SD 1472). Anki and Firecracker users comprised 31 and 49 % of respondents, respectively. In a multivariate regression model, significant independent predictors of Step 1 score included MCQs completed (unstandardized beta coefficient [B] =  $2.2 \times 10^{-3}$ , p < 0.001), unique Anki flashcards seen (B =  $5.9 \times 10^{-4}$ , p = 0.024), second-year honours (B = 1.198, p = 0.002), and MCAT score (B = 1.078, p = 0.003). Test anxiety was a significant negative predictor (B= -1.986, p < 0.001). Unique Firecracker flashcards seen did not predict Step 1 score. Each additional 445 boards-style practice questions or 1700 unique Anki flashcards was associated with an additional point on Step 1 when controlling for other academic and psychological factors.

https://www.semanticscholar.org/paper/Correlation -of-MCAT-scores-and-preparative-study-to-Seal-K oek/197f1f928273df1f156170a6fed8cbfd9ff43790

While new NBME® practice tests were more predictive of Step 1 scores than old NBME® tests, UWorld® SA2 scores were most predictive (P=3.752E-93; R2=0.6803; n=370). Taking more than six practice tests significantly enhanced Step 1 scores (P=0.040).



- I believe quality over quantity for sure, which is another reason to start early. I normally did around 5-20 UW in pre-dedicated and then like 40-80 UW in dedicated. Only one day did I go past 80 and it was terrible lol.
- Read the entire (or most of it) explanation for all questions and critically ask yourself do you know exactly why the other answer choices are wrong?
  - The answer explanations are really awesome
  - Reading the whole explanation prepares you for similar questions on the same topic and you can make connections
- Learn from UW, but keep in mind that NBME will ask the question in a slightly different way, but the conceptual lessons remains the same if that makes sense
  - o It's a learning tool, not a testing one! The only score that matters is the PASS on the real thing:)
- I did untimed tutor so I could remember my train of thought and write down in the missed questions field for anki why I got it wrong
- Then you can search in anki browser to pull cards where you have written something in the Missed Questions Field
  - Missed\_Questions:\_\* (tag:#AK\_Step1\_v12::#NBME\* OR tag:#AK\_Step1\_v12::#UWorld\*) for example is a search
  - https://docs.ankiweb.net/searching.html





### **Dedicated**

- More ramped up version of pre-dedicated but I definitely locked down bc I wanted to see if I could take it early
- Still made time for some fun things once in a while, but I was decently strict with the study time
- Anki in morning on treadmill
- UW and review as I go in tutor mode or practice test
- All of the Amboss ethics/quality improvement questions, can be knocked out in a day. Also did some more biostats from them
- Sleep 8-9+ hours (do not skimp on sleep if you can :) you download what u studied way better when u sleep enough)
- Take a practice test or two at library on a computer that's not yours to practice that. Also figure out timing snack/caffeine/breaks/fave earplugs
  - Have a nervous friend take it with you to stimulate that part of it too if you like!



## NBMEs

- 25-30 were all released at the same time so 30 is not newer even though I thought it was
- I did 25 (school has you take this), 28, 39, 30, 31, 3 years of free 120s PDFs online. Search reddit;)
- Doing 26, 27 would probably be a good idea because the more you see the better but
   I felt confident taking it without doing more
- 31 and Free 120 online are most representative in style, length, difficulty, etc.
- Highly recommend trying to aim for 99% chance of passing / >70 just because that minimizes the chance something can go wrong
  - Also again makes your life on clinicals easier with strong step 1 foundation



- Review every test perhaps in even more in depth than UW lol. Notice how they describe some things in a less buzz-wordy way which is hard to describe but you will see what I mean
- Same strategy of reading the entire explanation and anki cards for any concepts you are unsure of or took you a long time to connect (unlock or sometimes faster to just make your own lol)
- Try to get in the test writer's heads so you understand why they include certain sentences
- Ask chatGPT to do a data analysis of your NBME insights (download CSV)
  - For instance, if I spent more than 130 sec on a question, very high chance of getting it incorrect which makes sense but helpful to see

### After step 1

Be proud of yourself! So exciting!

I'd start doing some light Amboss or UW if you have time before clerkships.

If not, that's perfectly fine but I kind of wished I did that before my first clerkship. Definitely relax after, if you have the option.

Good luck, you got this!