

Medical Education Learning Specialists

Best Practices for Lengthy USMLE Step 1 Study Plans: Retention Strategies

Zucker SOM Contact: Amber Chess (amber.chess@hofstra.edu)

The following represents a summary of advice from medical education learning specialists across the country. Feel free to make an appointment with Amber Chess at: Amber.Chess@hofstra.edu to discuss further.

Enhance your Studies with Active Learning “Study Bursts” and Retrieval Exercises

The Study Burst Method to Maintain Knowledge

Contributed by Dr. Rhonda Mudry, Assistant Professor of Psychiatry, Learning Specialist and Director of the Cognitive Skills Program, Penn State University College of Medicine. Adapted by E. Drake (2020).

For students who will be delayed in taking USMLE Step 1 due to COVID-19, we recognize that you may have questions about how to continue studying for USMLE Step 1 while avoiding burn out. The activities below can be used to promote retention of the information you have learned. This guide focuses on effective studying that you can do while in other third year clerkships, leading up to a window of time in closer proximity to your Step 1 test date.

We recommend breaking up your USMLE Step 1 preparation into **Study Bursts**. Study Bursts are brief, targeted study sessions that can be completed periodically during the week.

Study Burst 1.0- Question Bank Session: For a three-hour session, this could include 20 - 40 questions, making notes based on questions, making flashcards, and reviewing answer explanations. Then, make a prioritized list of topics to review again, in a targeted review session (find descriptions of different activities below).

Study Burst 2.0 - Targeted Review Sessions:

- **Respond to Your Readings of First Aid:** Read sections from First Aid that correspond to your knowledge gaps. Review First Aid in a targeted fashion, instead of reading a chapter from beginning to end. Summarize the main ideas using your own words.
- **Read a Textbook or Watch a Video:** Review content associated with your prioritized list. After reading or watching the video, take a blank sheet of paper and write down the most important information from memory.
- **Learn by Drawing:** Drawing can be helpful for certain concepts (Anatomy, Embryology, Biochemistry). Look at an image and later reproduce it from memory. To get the biggest benefit, fill it in with labels and explanations.
- **Draw Diagrams:** Draw diagrams or create other graphic organizers (e.g. algorithms, flow charts, pathways, compare and contrast charts). Consider drawing a diagram on a whiteboard and then walking away. As you walk away, quiz yourself on the content. Then, turn around to check to see if you were right.
- **Create a Table or Mind Map:** Identify a challenging topic from a missed question. Create a table or mind map and write out the differential diagnosis and diseases, HPE, mechanism of action, course and complications, treatment or management plans. Additional topics to include: risk factors, labs, and

pharmacological treatment. For pharmacology topics, study the mechanism, major uses, contraindications and side effects. Experiment with completing part of this table or map on one day and completing the rest a couple days later.

- **Reorganize Information:** Make charts to reorganize the information and continue rehearsing it. For example, consider making charts to organize common and unique features for glycogen storage diseases.
- **Create a Missed Question Journal:** Using a PowerPoint, a page from a notebook, or a OneNote document, create notes to help you learn and reinforce challenging topics from missed questions. Pose questions on a PPT slide or in the margins that you can use to quiz yourself. Use color-coded tags to prioritize content or topics.
- **Drill and Rehearse:** For concepts that just need to be memorized (think Pharmacology concepts), they can be rehearsed with resources like Sketchy, flashcards or First Aid. Another option is to create a study group with your peers and drill each other on a bug and a drug.
- **Retrieve to Reinforce:** Using flashcards or a small set of ANKI cards, test yourself on a recent subject. Additional options include covering up your annotations in FA or your notes and quizzing yourself. Challenge yourself to write, draw, or answer out loud.
- **Isolate and Attack:** Pick a challenging general science topic. Then, work 5 - 10 questions on this topic. See if you can continue to identify and solidify any learning gaps.
- **Brainstorm Diagnoses:** Pick a challenging topic and brainstorm all the possible diagnoses. Then, identify the three that are most common or likely (USMLE Step 1 tests on concepts that are “most common” or “most likely.” Then, identify the one diagnosis not to miss. Compare your lists with a peer.
- **Make Your Own Questions:** Write out a set of factual or higher-level questions that you would anticipate being tested on during the actual USMLE Step 1 exam. If studying with peers, ask them to review and answer your questions.
- **Teach Concepts:** You can prepare a teaching lesson for others in order to increase your own understanding of concepts.