

## SECTION IV

# Top-Rated Review Resources

*“Some books are to be tasted, others to be swallowed, and some few to be chewed and digested.”*

—Sir Francis Bacon

*“Always read something that will make you look good if you die in the middle of it.”*

—P.J. O'Rourke

*“So many books, so little time.”*

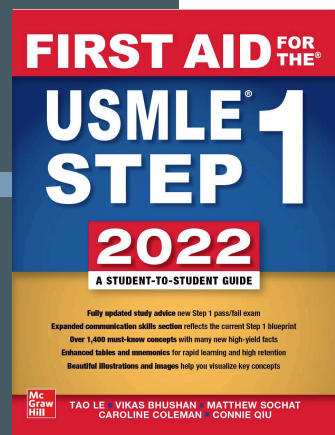
—Frank Zappa

*“If one cannot enjoy reading a book over and over again, there is no use in reading it at all.”*

—Oscar Wilde

*“Start where you are. Use what you have. Do what you can.”*

—Arthur Ashe



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## ► HOW TO USE THE DATABASE

This section is a database of top-rated basic science review books, sample examination books, websites, apps, and commercial review courses that have been marketed to medical students studying for the USMLE Step 1. For each recommended resource, we list (where applicable) the **Title**, the **First Author** (or editor), the **Series Name** (where applicable), the **Current Publisher**, the **Copyright Year**, the **Number of Pages**, the **ISBN**, the **Approximate List Price**, the **Format** of the resource, and the **Number of Test Questions**. We also include **Summary Comments** that describe their style and overall utility for studying. Finally, each recommended resource receives a **Rating**. Within each section, resources are arranged first by Rating and then alphabetically by the first author within each Rating group.

A letter rating scale with six different grades reflects the detailed student evaluations for **Rated Resources**. Each rated resource receives a rating as follows:

A+	Excellent for boards review.
A A–	Very good for boards review; choose among the group.
B+ B	Good, but use only after exhausting better resources.
B–	Fair, but there are many better resources in the discipline; or low-yield subject material.

The Rating is meant to reflect the overall usefulness of the resource in helping medical students prepare for the USMLE Step 1. This is based on a number of factors, including

- The importance of the discipline for the USMLE Step 1
- The appropriateness and accuracy of the material
- The readability of the text
- The quality and number of sample questions
- The quality of written answers to sample questions
- The cost
- The quality of the user interface and learning experience, for web and mobile apps
- The quality and appropriateness of the images and illustrations
- The length of the text (longer is not necessarily better)
- The quality and number of other resources available in the same discipline

Please note that ratings do not reflect the quality of the resources for purposes other than reviewing for the USMLE Step 1. Many books with lower ratings are well written and informative but are not ideal for boards

preparation. We have not listed or commented on general textbooks available for the basic sciences.

Evaluations are based on the cumulative results of formal and informal surveys of thousands of medical students at many medical schools across the country. The summary comments and overall ratings represent a consensus opinion, but there may have been a broad range of opinion or limited student feedback on any particular resource.

Please note that the data listed are subject to change in that

- Publisher and app store prices change frequently.
- Retail and online bookstores may set their own prices.
- New editions and app versions come out frequently, and the quality of updating varies.
- The same book may be reissued through another publisher.

We actively encourage medical students and faculty to submit their opinions and ratings of these basic science review materials so that we may update our database. In addition, we ask that publishers and authors submit for evaluation review copies of basic science review books, including new editions and books not included in our database. We also solicit reviews of new books, mobile apps, websites, flash cards, and commercial review courses.

#### **Disclaimer/Conflict of Interest Statement**

None of the ratings reflects the opinion or influence of the publisher. All errors and omissions will gladly be corrected if brought to the attention of the authors through our blog at [firstaidteam.com](http://firstaidteam.com). Please note that USMLE-Rx, ScholarRx, and the entire *First Aid for the USMLE* series are publications by certain authors of *First Aid for the USMLE Step 1*; the following ratings are based solely on recommendations from the student authors of *First Aid for the USMLE Step 1* as well as data from a far-reaching, detailed survey we distribute to thousands of medical students every year.

## ► QUESTION BANKS

<b>A+</b>	<b><i>UWorld Qbank</i></b> uworld.com <p>A diverse question bank with many questions requiring multistep reasoning, which may be more difficult than the actual test. Explanations are detailed with figures and tables. Flash cards, tests, and performance scores can be customized per user preferences. Accessible via iOS and Android mobile apps.</p>	<b>\$269–\$719</b>	Test/3500+ q
<b>A</b>	<b><i>AMBOSS</i></b> amboss.com <p>Integrated question bank for Step 1 and Step 2 CK exams with an additional interactive online library of medical resources. Contains numerous color-coded illustrations within the clinical vignettes. Allows for the selection of questions by difficulty level. Includes personalized study plan. Free trial available, accessible through iOS or Android mobile apps.</p>	<b>\$89–\$388</b>	Test/2700+ q
<b>A</b>	<b><i>NBME Practice Exams</i></b> nbme.org/examinees/self-assessments <p>Exams consist of retired Step 1 questions. Performance on these exams shows a “moderate correlation” with performance on the actual exam. The postexam reviews now provide explanations for the answers as well. Students use these as rough gauges of score progression over their study period. Additional feature includes an in-person practice session at Prometric (\$75 in U.S., \$155 internationally) for students who wish to practice the logistics of exam day.</p>	<b>\$60</b>	Test/200 q
<b>A–</b>	<b><i>USMLE-Rx Qmax</i></b> usmle-rx.com/products/step-1-qmax/ <p>Offers Step 1–style questions accompanied by thorough explanations. Omits obscure material and distills high-yield information. Best used after a first readthrough of <i>First Aid</i>. Each explanation includes references from <i>First Aid</i>. However, the proportion of questions covering a given subject may not reflect the actual exam’s relative emphasis. Question stems avoid “buzzwords” and explanations provide in-depth answers and concepts. Most useful to help commit <i>First Aid</i> to memory. Provides detailed performance analyses. Free trial available, accessible through iOS and Android mobile apps.</p>	<b>\$79–\$299</b>	Test/2300+ q

<b>B+</b>	<b>Kaplan Qbank</b> kaptest.com <p>Covers most content found on Step 1, but sometimes emphasizes recall of low-yield details rather than integrative problem-solving skills. Test content and performance feedback can be organized by both organ system and discipline. Includes detailed explanations of all answer choices. Users can see cumulative results both over time and compared to other test takers. Accessible through iOS or Android mobile apps.</p>	<b>\$129–\$399</b> Test/3300+ q
<b>B+</b>	<b>Pastest</b> pastest.com <p>Questions appear to be simpler than board-style questions, with many first- and second-order questions. Explanations are accompanied by references to <i>First Aid</i> and short video clips to reinforce information. Also has a progressive learning system through cases. Accessible through iOS or Android mobile apps, with a free 48-hour trial.</p>	<b>\$50</b> Test/2300+ q
<b>B</b>	<b>BoardVitals</b> boardvitals.com <p>Comprehensive question bank modeled closely after the format of the Step 1 exam. Covers all subject areas, and is best used to supplement classwork. Each answer choice is well explained, but there are fewer image-based questions compared to other question banks. Users can create custom exams and compare their performance to national averages.</p>	<b>\$149–\$329</b> Test/3300+ q
<b>B</b>	<b>TrueLearn Review</b> truelearn.com <p>Includes over 2200 USMLE-style practice questions with topics mapped to the NBME blueprint and <i>First Aid for USMLE Step 1</i>, 2021 edition. Uses national benchmarking to show students where they stand in comparison to peers.</p>	<b>\$165–\$405</b> Test/2200+ q

## ► WEB AND MOBILE APPS

<b>A</b>	<b>Anki</b> ankiweb.net Flash card-making resource designed for retention of facts through spaced repetition. Premade decks of cards are available. Free access via desktop and smartphone for Windows, Mac, and Android (syncable across devices). The iOS app must be purchased for \$25. Available in different languages. Mobile interface is user friendly.	<b>Free</b>	Flash cards
<b>A</b>	<b>Boards and Beyond</b> boardsbeyond.com Includes approximately 450 videos averaging ~26 minutes each (playable at different speeds), covering the breadth of Step 1 material. Membership includes access to the companion books as PDFs. A collection of videos is offered as free samples on the website. Also includes Qbank of ~2300 questions.	<b>\$24–\$399</b>	Review/ Test/2300+ q
<b>A</b>	<b>Rx Bricks</b> usmle-rx.com/products/rx-bricks Interactive platform providing short, topic-based modules (called Bricks) supplemented with clinical cases, interactive art, and other tools to help learn core Step 1 exam material. Goals for reviewing the module are identified at the start of the Brick, and the objectives for each goal are met by the end of the topic review. At the end of each Brick, there are practice questions to assess the level of knowledge gained and allow for review in more detail if needed. Integrated with links to <i>First Aid Step 1 Express</i> videos, <i>First Aid Step 1 Flash Facts</i> , and the USMLE-Rx Step 1 Qmax question bank.	<b>\$8–\$99</b>	Study plan
<b>A</b>	<b>SketchyMedical</b> sketchy.com Video library of narrated lectures with thorough explanations that present microbiology, pharmacology, and pathology in a memorable style. Provides access to 350+ videos, 350+ review cards, and 3000+ quiz questions. All three versions can be purchased as a package. Free subscription gives access to certain videos and associated cards.	<b>\$300–\$600</b>	Review
<b>A</b>	<b>USMLE-Rx Step 1 Express</b> usmle-rx.com/products/step-1-express-videos Online comprehensive review including 800+ videos and image mnemonics covering different subjects. Accessible via website or mobile app. Includes a supplemental, full-color, highly visual PDF textbook. Known for its physiology content. Videos include more than 600 extra images and multimedia clips. Includes many step-by-step breakdowns of how to answer USMLE-style questions. Subscription includes a color workbook with over 200 pages.	<b>\$49–\$179</b>	Review/Test
<b>A</b>	<b>USMLE-Rx Step 1 Flash Facts</b> usmle-rx.com/products/step-1-flash-facts Access to 15,000+ flash cards with intelligent spaced repetition integrated with <i>First Aid for the USMLE Step 1</i> . Updated each year to reflect the newest edition of the book; students can access the past 3 editions' worth of flash cards. Searchable by organ system, discipline, and topic.	<b>\$29–\$99</b>	Flash cards

<b>A-</b>	<b>Dirty Medicine</b> <a href="https://youtube.com/c/DirtyMedicine">youtube.com/c/DirtyMedicine</a> Contains videos on many topics tested on the Step 1 exam. Video question banks explain how to approach various question types. Also has helpful mnemonics. Explains the reasoning behind choosing the correct answer and why other answers are incorrect.	<b>Free</b>	
<b>A-</b>	<b>OnlineMedEd</b> <a href="https://onlinemeded.org">onlinemeded.org</a> A video lecture series covering primarily clinical science material, with recent addition of biochemistry, cell biology, immunology, and organ systems for basic sciences. Video access is free with registration. A monthly paid subscription starting at \$70/month gains access to ad-free videos, lecture notes, flash cards, a question bank, and downloadable audio lectures.	<b>Free–\$365</b>	Review
<b>A-</b>	<b>Physeio</b> <a href="https://physeo.com">physeo.com</a> Online comprehensive review including 800+ videos and image mnemonics covering different subjects. Accessible via website or mobile app. Includes a supplemental, full-color, highly visual PDF textbook. Known for its physiology content. Videos are concise and focus on high-yield material, and board-style practice questions are included after each topic to help solidify understanding. Similar structure to Pathoma, but with physiology focus.	<b>Free–\$450</b>	Review
<b>B+</b>	<b>Cram Fighter</b> <a href="https://cramfighter.com">cramfighter.com</a> Helps organize a study schedule. Highly flexible with customizable settings. Supports more than 650 of the most popular books, video lectures, question banks, and flash cards. Mobile apps available for iOS and Android. Free 7-day trial is available.	<b>\$29–\$159</b>	Study plan
<b>B+</b>	<b>Firecracker</b> <a href="https://wolterskluwer.com/en/solutions/lippincott-medicine/medical-education/firecracker">wolterskluwer.com/en/solutions/lippincott-medicine/medical-education/firecracker</a> Learning platform divided into modules arranged by organ systems. Contains comprehensive topic summaries, flashcards, and many questions/vignettes. Quizzes on flagged review material, actual exam simulation, and page references to First Aid for the USMLE Step 1 and other texts also available. Features customizable quizzes and personalized study plans. Accessible on all smartphones and tablets. Comprehensive; best if started early in preclinical years.	<b>\$99–\$149</b>	Review/ Test/2300 q
<b>B+</b>	<b>Osmosis</b> <a href="https://osmosis.org">osmosis.org</a> Web platform that includes exam study scheduling tool, 7300+ USMLE Step 1- and Step 2-focused variable quality multiple choice questions, 16,000+ flash cards with spaced repetition, and 1800+ videos, memory anchors, and reference articles. Includes a curriculum analysis and search engine, collaboration features for study groups, and a mobile app with quizzes and videos.	<b>\$179–\$279</b>	Test

<b>B+</b>	<b><i>Radiopaedia.org</i></b> <a href="http://radiopaedia.org">radiopaedia.org</a> <p>A user-friendly website with thousands of well-organized radiology cases and articles. High-yield anatomy and pathology are covered with images described in detail. Good resource to learn how to read CT scans and ultrasound images. Quiz mode allows students to make a diagnosis based on radiographic findings. Good complement to classes and clerkships. Expanded options available for paying members (\$72 to \$144 per year).</p>	<b>Free</b>	Cases/Test
<b>B+</b>	<b><i>USMLE Step 1 Mastery</i></b> <a href="http://builtbyhlt.com/medical/usmle-step-1-mastery">builtbyhlt.com/medical/usmle-step-1-mastery</a> <p>Question bank accessible through website or via free mobile app. Covers all USMLE topics and includes vignettes, images, and mnemonics. Question formatting is generally less representative of actual USMLE questions compared with other widely used question banks. Mobile app contains supplemental flash cards for integrated learning.</p>	<b>\$10–\$30</b>	Test/1400+ q
<b>B+</b>	<b><i>WebPath: The Internet Pathology Laboratory</i></b> <a href="http://webpath.med.utah.edu">webpath.med.utah.edu</a> <p>Features more than 2700 gross and microscopic images, clinical vignette questions, and case studies. Includes nine general pathology exams and 11 system-based pathology exams with approximately 1300 questions. Also features 170 questions associated with images. Questions are useful for reviewing boards content but are typically untimed, easier, and shorter. No multimedia practice questions. Not regularly updated with regard to high-yield Step 1 material.</p>	<b>Free</b>	Review/ Test/1300+ q
<b>B</b>	<b><i>Dr. Najeeb Lectures</i></b> <a href="http://drnajeeblectures.com">drnajeeblectures.com</a> <p>Provides 800+ video lectures covering basic medical sciences and clinical medicine with thousands of hand-drawn illustrations and mnemonics. Website provides mobile video support on smartphones and tablets. Free lectures accessible at <a href="http://drnajeeblectures.com/free-medical-videos/">drnajeeblectures.com/free-medical-videos/</a>.</p>	<b>\$499</b>	Review
<b>B</b>	<b><i>KISSPrep</i></b> <a href="http://kissprep.com">kissprep.com</a> <p>Online lecture videos focused on select subjects from the Step 1 exam. Focuses on harder-to-learn content and teaches it in a simple, easy-to-understand manner. Quizzes and other interactive tools are available to help with knowledge retention. Not all Step 1 content is covered on this platform.</p>	<b>\$30–\$150</b>	Review
<b>B</b>	<b><i>Lecturio</i></b> <a href="http://lecturio.com/medical/usmle-step-1">lecturio.com/medical/usmle-step-1</a> <p>Online platform for comprehensive exam preparation, including 600 hours of lectures, a flash card deck, quizzes, and a question bank. Organized by subject matter and allows users to customize their learning experience. Some content may be beyond the scope of the exam and better suited for medical school coursework. Lectures and quizzes may be accessed for free. iOS and Android apps are available.</p>	<b>\$105–\$720</b>	Review/ Test/2150 q

<b>B</b>	<b>Medbullets</b> <a href="http://step1.medbullets.com">step1.medbullets.com</a> <p>Free online learning and collaboration community for students preparing for their exams. Supplements medical school coursework and Step 1 studying with simplified, to-the-point online search platform that is best used as a reference. Free for the initial 90 days. Premium content is available for a fee and includes an online question bank and adaptive learning system.</p>	<b>\$80–\$250</b>	Review/ Test/1000+ q
<b>B</b>	<b>Memorang</b> <a href="http://memorang.com">memorang.com</a> <p>Platform utilizing spaced repetition, available both in website and app form. Utilizes custom and/or premade flash card “study sets” derived from 15,000+ flash cards that focus on specific subject areas and are then tested via various games and quizzing methods. Free 7-day trial, or monthly/annual membership.</p>	<b>\$20–\$240</b>	Flash cards
<b>B</b>	<b>Ninja Nerd Medicine</b> <a href="https://youtube.com/c/NinjaNerdMedicine">youtube.com/c/NinjaNerdMedicine</a> <p>Contains videos with line diagrams explained in a simplified way. Topics include pulmonary medicine, hepatic pathology, cardiac pathology, endocrine pathology, and COVID-19. Limited content necessitates use of additional resources for comprehensive study.</p>	<b>Free</b>	
<b>B</b>	<b>Picmonic</b> <a href="http://picmonic.com">picmonic.com</a> <p>Helpful resource for visual learners. Unique images and stories with daily quizzes and spaced repetition. Contains 1700+ images and includes study guides, webinars, and infographics that help cover 16,000 facts of Step 1 material. Offered via both web and mobile platforms.</p>	<b>\$25–\$959</b>	Review
<b>B–</b>	<b>Innerbody Research</b> <a href="http://innerbody.com/htm/body.html">innerbody.com/htm/body.html</a> <p>Contains interactive 3D models of the human body. Students can view anatomic details by system or organ. Can be helpful to master complex anatomic concepts.</p>	<b>Free</b>	Review

## ► COMPREHENSIVE

<b>A</b>	<p><b><i>First Aid for the Basic Sciences: General Principles</i></b> LE McGraw-Hill, 2017, 528 pages, ISBN 9781259587016</p> <p>Comprehensive review of the basic sciences covered in the preclinical years of medical school. Similar to the first part of <i>First Aid</i>, organized by discipline, and includes hundreds of color images and tables. Best if started with first-year coursework and then used as a reference during boards preparation.</p>	<b>\$75</b> Review
<b>A</b>	<p><b><i>First Aid Cases for the USMLE Step 1</i></b> LE McGraw-Hill, 2019, 496 pages, ISBN 9781260143133</p> <p>Hundreds of high-yield cases organized by organ system. Each case features a clinical vignette with relevant images, followed by questions and short, high-yield explanations. Offers coverage of many frequently tested concepts, and integrates subject matter in the discussion of the vignette. Helpful in reviewing material outlined in <i>First Aid for the USMLE Step 1</i>.</p>	<b>\$50</b> Cases
<b>A-</b>	<p><b><i>First Aid for the Basic Sciences: Organ Systems</i></b> LE McGraw-Hill, 2017, 912 pages, ISBN 9781259587030</p> <p>A comprehensive review of the basic sciences covered in the preclinical years of medical school. Similar to the second part of <i>First Aid</i>, organized by organ system, and includes hundreds of color images and tables. Each organ system contains discussion of embryology and anatomy, physiology, pathology, and pharmacology. Best if started with second-year coursework and then used as a reference during boards preparation.</p>	<b>\$72</b> Review
<b>B+</b>	<p><b><i>USMLE Step 1 Secrets in Color</i></b> BROWN Elsevier, 2017, 800 pages, ISBN 9780323396790</p> <p>Clarifies difficult concepts in a concise, readable manner. Uses a case-based format and integrates information well. High-quality clinical images. Complements other boards study resources, with a focus on understanding preclinical fundamentals rather than on rote memorization. Some potential errors.</p>	<b>\$43</b> Review
<b>B+</b>	<p><b><i>USMLE Step 1 Lecture Notes 2021</i></b> KAPLAN Kaplan Medical, 2021, 2624 pages, ISBN 9781506259345</p> <p>Extremely comprehensive review of Step 1 topics through videos and lecture notes. Split into individual sections covering pathology, pharmacology, physiology, biochemistry and medical genetics, immunology and microbiology. Generally best used to fill gaps in understanding and to review unfamiliar topics, and therefore the notes and associated videos are commonly used by international medical graduates. Some very detailed sections go beyond the scope of the Step 1 exam.</p>	<b>\$330</b> Review

<b>B+</b>	<p><b><i>Crush Step 1: The Ultimate USMLE Step 1 Review</i></b> O'CONNELL</p> <p>Elsevier, 2018, 704 pages, 9780323481632</p> <p>Detailed, text-heavy review book with practice questions included. Coverage of many high-yield topics but includes some outdated information. Best if used with coursework, but also recommended as a supplemental reference for boards review. Its biostatistics chapter is regarded as one of the best parts of the book.</p>	<b>\$45</b> Review
<b>B</b>	<p><b><i>Kaplan USMLE Step 1 Qbook</i></b> KAPLAN</p> <p>Kaplan Medical, 2019, 468 pages, ISBN 9781506250267</p> <p>Consists of over 850 exam-like questions organized by the traditional basic science disciplines. Similar to the Kaplan Qbank, and offers USMLE-style questions with clear, detailed explanations; however, lacks classic images typically seen on the exam. Also includes access to a sample online question bank and a guide on test-taking strategies.</p>	<b>\$50</b> Test/850 q
<b>B</b>	<p><b><i>medEssentials for the USMLE Step 1</i></b> KAPLAN</p> <p>Kaplan Medical, 2020, 528 pages, ISBN 9781506223599</p> <p>A comprehensive review divided into general principles and organ systems, organized using high-yield tables and figures. Helpful for visual learners, but can be overly detailed and time consuming. Includes color images in the back along with a monthly subscription to online interactive exercises, although these are of limited value for Step 1 preparation. Pages may be too thin to allow for handwritten annotating. Comes with a free mobile version.</p>	<b>\$55</b> Review

## ► ANATOMY, EMBRYOLOGY, AND NEUROSCIENCE

<b>A-</b>	<p><b><i>High-Yield Gross Anatomy</i></b> DUDEK</p> <p>Lippincott Williams &amp; Wilkins, 2015, 320 pages, ISBN 9781451190236</p> <p>A good review of gross anatomy with some clinical correlations. Contains color clinical photos and well-labeled, high-yield radiographic images, but often goes into excessive detail that is beyond the scope of the boards.</p>	<b>\$49</b> Review
<b>A-</b>	<p><b><i>Clinical Anatomy Made Ridiculously Simple</i></b> GOLDBERG</p> <p>MedMaster, 2016, 175 pages, ISBN 9780940780972</p> <p>An easy-to-read text offering simple diagrams along with numerous mnemonics, helpful charts, and amusing associations. The humorous style has variable appeal to students, so browse the content before purchasing. Offers good coverage of selected topics. Best if used during coursework. Includes more detail than typically tested on Step 1.</p>	<b>\$30</b> Review

<b>B+</b>	<p><b><i>BRS Embryology</i></b> DUDEK</p> <p>Lippincott Williams &amp; Wilkins, 2014, 336 pages, ISBN 9781451190380</p> <p>An outline-based review of embryology that is typical of the BRS series. Offers a good review and includes much more detail than is required for Step 1. A discussion of congenital malformations is included at the end of each chapter, along with over 220 USMLE-style questions with answers and explanations. The comprehensive exam at the end of the book is high yield. Includes access to a searchable online text on the free companion website, which also features interactive quizzing.</p>	<b>\$58</b>	Review/ Test/220 q
<b>B+</b>	<p><b><i>Clinical Neuroanatomy Made Ridiculously Simple</i></b> GOLDBERG</p> <p>MedMaster, 2014, 99 pages, ISBN 9781935660194</p> <p>An easy-to-read, memorable, and simplified format with clever diagrams. Offers a quick, high-yield review of clinical neuroanatomy, but not a comprehensive resource for boards review. Places appropriate emphasis on clinically relevant pathways, cranial nerves, and neurologic diseases. Includes a free app with CT and MR images, a tutorial on neurologic localization, and interactive quizzes covering classic neurology cases. A light read, useful as a refresher before neurology rotations.</p>	<b>\$26</b>	Review/Test/ Few q
<b>B+</b>	<p><b><i>High-Yield Neuroanatomy</i></b> GOULD</p> <p>Lippincott Williams &amp; Wilkins, 2016, 208 pages, ISBN 9781451193435</p> <p>An easy-to-read, straightforward format with excellent diagrams and illustrations. Features a useful atlas of brain and spinal cord images, a glossary of important terms, and an appendix of neurologic lesions. Overall, a great resource and quick read, but more detailed than what is required for Step 1.</p>	<b>\$45</b>	Review/ Test/50 q
<b>B+</b>	<p><b><i>Netter's Anatomy Flash Cards</i></b> HANSEN</p> <p>Elsevier, 2019, 688 flash cards, ISBN 9780323530507</p> <p>Netter's illustrations in a question/answer column format that allows for self-testing. Each card includes commentary on the structures with a clinical correlation, and pairs well with the associated textbook. More effective as a supplement to coursework, and much too detailed for boards preparation. Lack of embryology correlates limits Step 1 usefulness. Includes online access with additional bonus cards and more than 400 multiple choice questions. Note: an iOS app has a similar cost and additional functionality.</p>	<b>\$40</b>	Flash cards
<b>B+</b>	<p><b><i>Crash Course: Anatomy and Physiology</i></b> STEPHENS</p> <p>Elsevier, 2019, 350 pages, ISBN 9780702073755</p> <p>Part of the Crash Course review series for basic sciences, integrating clinical topics. Offers two-color illustrations, handy study tools, and Step 1 review questions. Contains an up-to-date self-assessment section. Provides a solid review of anatomy and physiology for Step 1. Best if started early.</p>	<b>\$40</b>	Review
<b>B</b>	<p><b><i>Anatomy—An Essential Textbook</i></b> GILROY</p> <p>Thieme, 2017, 528 pages, ISBN 9781626234390</p> <p>A thorough, visually appealing approach to learning anatomy. Contains over 650 colorful, helpful illustrations. Presents material in bullet-point format and tables. Includes over 160 clinical correlates and 400 USMLE-style questions, with the opportunity to complete practice questions online.</p>	<b>\$50</b>	Text/ Test/400 q

## ► BEHAVIORAL SCIENCE

**A-*****BRS Behavioral Science***

FADEM

**\$57** Review/  
Test/600 q

Lippincott Williams &amp; Wilkins, 2021, 384 pages, ISBN 9781975118365

An easy-to-read outline-format review of behavioral science. Offers detailed coverage of mostly high-yield topics, but at a level of depth that often exceeds what is tested on Step 1. Better used prior to dedicated study period. Incorporates tables and charts as well as a statistics chapter. Features over 600 review questions, including an end-of-book comprehensive exam. References DSM-V criteria.

**B*****Biostatistics and Epidemiology: A Primer for Health and Biomedical Professionals*** **\$85** Review

WASSERTHEIL-SMOLLER

Springer, 2015, 280 pages, 9781493921331

Book that focuses on the underlying framework of biostatistics and epidemiology and offers practical guidelines for research and interpretation. New edition has an expanded chapter on genetic epidemiology. Can be used for self-learning. While it can be used for clarifying certain concepts, content may go into greater breadth than needed for the boards, and there are no board-style questions. Limited student feedback.

## ► BIOCHEMISTRY

**A*****Pixorize***

pixorize.com

**\$150–\$200** Review

Visual mnemonic system focusing primarily on biochemistry, particularly mechanisms of metabolic diseases such as lysosomal storage diseases. Step-by-step videos and interactive images aid studying and review. Comparable to Sketchy and Picmonic. Videos are generally shorter than Sketchy videos. Unlike Sketchy, Pixorize has a separate video for every disease that it covers. Most helpful for review after learning the material first elsewhere.

**B+*****Lippincott Illustrated Reviews: Biochemistry***

FERRIER

**\$82** Review/  
Test/200 q

Lippincott Williams &amp; Wilkins, 2017, 560 pages, ISBN 9781496344496

An integrative and comprehensive review of biochemistry that includes good clinical correlations and effective color diagrams. Extremely detailed and requires significant time commitment, so it should be started with first-year coursework. High-yield summaries at the end of each chapter. Comes with access to the companion website, which includes over 200 USMLE-style questions.

<b>B+</b>	<p><b><i>BRS Biochemistry, Molecular Biology, and Genetics</i></b> LIEBERMAN</p> <p>Lippincott Williams &amp; Wilkins, 2020, 448 pages, ISBN 9781496399236</p> <p>A highly detailed review featuring many images, figures, and clinical correlations. The biochemistry portion includes much more detail than required for Step 1, but may be useful for students without a strong biochemistry background or as a reference text. The molecular biology section is more focused and high yield. Also offers a chapter on laboratory techniques and over 500 clinically oriented practice questions.</p>	<b>\$56</b>	Review/ Test/500 q
<b>B</b>	<p><b><i>Lange Flashcards: Biochemistry and Genetics</i></b> BARON</p> <p>McGraw-Hill, 2017, 184 flash cards, ISBN 9781259837210</p> <p>Flash card deck featuring clinical vignettes on one side and concise discussions on the other. Each section contains 2–3 cards on biochemistry principles. High level of detail may make this less ideal for dedicated boards studying. Note that no carrying case for the cards is included.</p>	<b>\$38</b>	Flash cards

## ► CELL BIOLOGY AND HISTOLOGY

<b>B+</b>	<p><b><i>Blue Histology</i></b> lecannabiculteur.free.fr/SITES/UNIV%20W.AUSTRALIA/mb140/Lectures.htm</p> <p>Most helpful when used as a question bank while learning new histology content. Includes many histology slides. Questions are accompanied by brief explanations. However, most are one-step questions and not suitable for board preparation.</p>	<b>Free</b>	Test
<b>B+</b>	<p><b><i>Crash Course: Cell Biology and Genetics</i></b> STUBBS</p> <p>Mosby, 2015, 216 pages, ISBN 9780723438762</p> <p>Part of the Crash Course review series for basic sciences, integrating clinical topics. Offers two-color illustrations, handy study tools, and Step 1 review questions. Includes online access. High level of detail makes this resource best suited for coursework.</p>	<b>\$47</b>	Review/Print + online
<b>B</b>	<p><b><i>BRS Cell Biology and Histology</i></b> GARTNER</p> <p>Lippincott Williams &amp; Wilkins, 2018, 448 pages, ISBN 9781496396358</p> <p>Covers concepts in cell biology and histology in an outline format. Can be used alone for cell biology study, but may have fewer histology images than some other resources. Includes more detail than is required for Step 1, and information is less high yield than that of other books in the BRS series. Interactive quizzes on the free companion website provide additional practice.</p>	<b>\$56</b>	Review/ Test/320 q

## ► MICROBIOLOGY AND IMMUNOLOGY

<b>A-</b>	<p><b><i>Medical Microbiology and Immunology Flash Cards</i></b> ROSENTHAL Elsevier, 2016, 192 flash cards, ISBN 9780323462242</p> <p>Flash cards covering the microorganisms most commonly tested on Step 1. Each card features color microscopic images and clinical presentations on one side and relevant bug information in conjunction with a short case on the other side. Also includes Student Consult online access for extra features. Overemphasizes “trigger words” related to each bug. Not a comprehensive resource.</p>	<b>\$40</b> Flash cards
<b>B+</b>	<p><b><i>Basic Immunology</i></b> ABBAS Elsevier, 2020, 336 pages, ISBN 9780323549431</p> <p>A useful text that offers clear explanations of complex topics in immunology. Best if used in conjunction with coursework and later skimmed for quick Step 1 review. Includes colorful diagrams, images, tables, and a glossary for further study. Features online access.</p>	<b>\$70</b> Review
<b>B+</b>	<p><b><i>Clinical Microbiology Made Ridiculously Simple</i></b> GLADWIN MedMaster, 2019, 418 pages, ISBN 9781935660330</p> <p>An excellent, easy-to-read, detailed review of microbiology that includes clever and memorable mnemonics. The sections on bacterial disease are most high yield, less emphasis placed on pharmacology. Recommended to read during coursework and review the concise charts at the end of each chapter during boards review. All images are cartoons; no microscopy images that appear on boards. Requires a supplemental source for immunology.</p>	<b>\$38</b> Review
<b>B+</b>	<p><b><i>Microcards: Microbiology Flash Cards</i></b> HARPAVAT Lippincott Williams &amp; Wilkins, 2015, 156 flash cards, ISBN 9781451192353</p> <p>A well-organized and complete resource for students who like to use flash cards for review. Cards feature the clinical presentation, pathobiology, diagnosis, treatment, and high-yield facts for a particular organism. Some cards also include excellent flow charts organizing important classes of bacteria or viruses. Overall, a good review resource, but at times it is overly detailed, requiring a significant time commitment. Also useful as an aid with coursework. Includes access to online USMLE-style questions with answers.</p>	<b>\$58</b> Flash cards
<b>B+</b>	<p><b><i>Lange Microbiology and Infectious Diseases Flash Cards, 3e</i></b> SOMERS McGraw-Hill, 2018, ISBN 9781259859823</p> <p>Clinical vignettes presented on one side of the card as a mini-case study of the disease and the flip side presents the etiology and epidemiology, pathogenesis, clinical manifestations, laboratory diagnosis, and treatment and prevention of the disorder. Good for reviewing clinical aspects of many infectious diseases.</p>	<b>\$55</b> Flash cards

<b>B</b>	<p><b><i>Lippincott Illustrated Reviews: Microbiology</i></b>  <b>CORNELISSEN</b>  Lippincott Williams &amp; Wilkins, 2019, 448 pages, ISBN 9781496395856</p> <p>A comprehensive, highly illustrated review of microbiology that is similar in style to other titles in the Illustrated Reviews series. Has more than 400 color illustrations and color-coded summaries to help visual learners. Contains several hundred USMLE-style review questions to help with exam preparation. Compare with Levinson's <i>Review of Medical Microbiology and Immunology</i>.</p>	<b>\$76</b> Review/Test/ Few q
<b>B</b>	<p><b><i>Case Studies in Immunology: A Clinical Companion</i></b>  <b>GEHA</b>  W. W. Norton &amp; Company, 2016, 384 pages, ISBN 9780815345121</p> <p>A text that was originally designed as a clinical companion to <i>Janeway's Immunobiology</i>. Provides a great synopsis of the major disorders of immunity in a clinical vignette format. Integrates basic and clinical sciences. Features excellent images and illustrations from Janeway, as well as questions and discussions.</p>	<b>\$62</b> Cases
<b>B</b>	<p><b><i>Review of Medical Microbiology and Immunology</i></b>  <b>LEVINSON</b>  McGraw-Hill, 2020, 864 pages, ISBN 9781260116717</p> <p>A clear, comprehensive text with outstanding diagrams and tables. Includes an excellent immunology section. Contains a chapter summarizing details on medically important organisms. Can be used as reference for reviewing immunology concepts. Can be detailed and dense at points, so best if started early with coursework. Includes practice questions, but does not provide detailed explanation of answers. Compare with <i>Lippincott Illustrated Reviews: Microbiology</i>.</p>	<b>\$74</b> Review/ Test/650 q
<b>B</b>	<p><b><i>How the Immune System Works</i></b>  <b>SOMPAYRAC</b>  Wiley-Blackwell, 2019, 168 pages, ISBN 9781119542124</p> <p>A short overview of high-yield immunology designed for those with no prior immunology knowledge. Analogies and images create a “storybook” feel to spruce up a relatively dry subject. The 15 chapters offer a general overview with good supporting details.</p>	<b>\$50</b> Review

## ▶ PATHOLOGY

<b>A+</b>	<p><b><i>Pathoma: Fundamentals of Pathology</i></b> SATTAR</p> <p>Pathoma, 2021, 218 pages, ISBN 9780983224631</p> <p>Integrated approach to key concepts of pathology, combining a focused textbook with 35+ hours of online lectures. Both comprehensive and suitable for quick reviews. Physiology and pharmacology principles incorporated for good interrelation and consolidation of concepts. Book contains more than 350 color images. Videos combine “chalk talk” and slide formats to explain pathogenesis in an easy-to-understand manner. Online subscription needed for full access.</p>	<b>\$85–\$120</b>	Review/Lecture
<b>A–</b>	<p><b><i>Rapid Review: Pathology</i></b> GOLJAN</p> <p>Elsevier, 2019, 864 pages, ISBN 9780323476683</p> <p>A comprehensive source for key concepts in pathology, presented in a bulleted outline format with many high-yield tables and color figures. Features detailed explanations of disease mechanisms. Integrates concepts across disciplines with a strong clinical orientation. Lengthy, so best if started early with coursework. Includes access to online question bank with more than 500 questions. Covers material for both Step 1 and Step 2 exams.</p>	<b>\$65</b>	Review/ Test/500 q
<b>A–</b>	<p><b><i>Robbins and Cotran Review of Pathology</i></b> KLATT</p> <p>Elsevier, 2022, 488 pages, ISBN 9780323640220</p> <p>A question book that follows the main Robbins textbooks. Questions are more detailed, difficult, and arcane than those on the actual Step 1 exam, but the text offers a great review of pathology integrated with more than 1100 images. Thorough answer explanations reinforce key points. Requires significant time commitment, so best if started with coursework. Table of contents closely follows the organization of <i>Robbins and Cotran Pathologic Basis of Disease</i>.</p>	<b>\$55</b>	Test/1500 q
<b>A–</b>	<p><b><i>Crash Course: Pathology</i></b> MCKINNEY</p> <p>Elsevier, 2019, 438 pages, ISBN 9780702073540</p> <p>Part of the Crash Course review series for basic sciences, integrating clinical topics. Offers two-color illustrations, handy study tools, and Step 1 review questions. Includes online access. Best if started during coursework as an adjunct.</p>	<b>\$40</b>	Review
<b>B+</b>	<p><b><i>Pocket Companion to Robbins and Cotran Pathologic Basis of Disease</i></b> MITCHELL</p> <p>Elsevier, 2016, 896 pages, ISBN 9781455754168</p> <p>A condensed version of <i>Robbins and Cotran Pathologic Basis of Disease</i> that is good for reviewing key-words associated with most important diseases. Presented in a highly condensed format, but the text is complete and easy to understand. Contains no photographs or illustrations but does include tables. Useful as a quick reference.</p>	<b>\$39</b>	Review

<b>B</b>	<b><i>BRS Pathology</i></b> <b>GUPTA</b> Lippincott Williams & Wilkins, 2021, 496 pages, ISBN 9781975136628	<b>\$55</b> Review/ Test/450 q
<b>B</b>	<b><i>Pathophysiology of Disease: Introduction to Clinical Medicine</i></b> <b>HAMMER</b> McGraw-Hill, 2019, 832 pages, ISBN 9781260026504	<b>\$90</b> Text

## ► PHARMACOLOGY

<b>B+</b>	<b><i>Crash Course: Pharmacology</i></b> <b>PAGE</b> Elsevier, 2019, 336 pages, ISBN 9780702073441	<b>\$40</b> Review
<b>B+</b>	<b><i>Katzung &amp; Trevor's Pharmacology: Examination and Board Review</i></b> <b>TREVOR</b> McGraw-Hill, 2021, 608 pages, ISBN 9781260117127	<b>\$62</b> Review/ Test/1000 q
<b>B</b>	<b><i>Lange Pharmacology Flash Cards</i></b> <b>BARON</b> McGraw-Hill, 2018, 266 flash cards, ISBN 9781259837241	<b>\$39</b> Flash cards

<b>B</b>	<b><i>Pharmacology Flash Cards</i></b> <b>BRENNER</b> Elsevier, 2017, 277 flash cards, ISBN 9780323355643 Flash cards for more than 200 of the most commonly tested drugs. Cards include the name of the drug (both generic and brand) on the front and basic drug information on the back, with occasional cards covering high-yield pharmacology pathways. Divided and color coded by class, and comes with a compact carrying case. Lacks figures and clinical vignettes.	<b>\$45</b> Flash cards
<b>B</b>	<b><i>BRS Pharmacology</i></b> <b>LERCHENFELDT</b> Lippincott Williams & Wilkins, 2019, 384 pages, ISBN 9781975105495 Features two-color tables and figures that summarize essential information for quick recall. A list of drugs organized by drug family is included in each chapter. Too detailed for boards review; best used as a reference. Also offers end-of-chapter review tests with Step 1–style questions and a comprehensive exam with explanations of answers. An additional question bank is available online.	<b>\$57</b> Review/ Test/200 q
<b>B–</b>	<b><i>Lippincott Illustrated Reviews: Pharmacology</i></b> <b>WHALEN</b> Lippincott Williams & Wilkins, 2019, 576 pages, ISBN 9781496384133 A resource presented in outline format with practice questions, many excellent illustrations, and comparison tables. Effectively integrates pharmacology and pathophysiology. Best started alongside coursework, as it is highly detailed and requires significant time commitment. Focuses on basic principles.	<b>\$80</b> Review/ Test/380 q

## ► PHYSIOLOGY

<b>A–</b>	<b><i>Physiology</i></b> <b>COSTANZO</b> Elsevier, 2018, 528 pages, ISBN 9780323478816 A comprehensive, clearly written text that covers concepts outlined in <i>BRS Physiology</i> in greater detail. Offers excellent color diagrams and charts. Each systems-based chapter features a detailed summary of objectives and a Step 1–relevant clinical case. Includes access to online interactive extras. Requires time commitment, but helps develop a strong foundation in physiology concepts. Best if started alongside coursework. Practice questions at end of each chapter.	<b>\$60</b> Text
<b>A–</b>	<b><i>Color Atlas of Physiology</i></b> <b>SILBERNAGL</b> Thieme, 2015, 472 pages, ISBN 9783135450070 Contains more than 180 high-quality illustrations of disturbed physiologic processes that lead to dysfunction. An alternative to standard texts, but not high yield for boards review.	<b>\$50</b> Review

<b>A-</b>	<b><i>Pulmonary Pathophysiology: The Essentials</i></b> <b>WEST</b> Lippincott Williams & Wilkins, 2022, 304 pages, ISBN 9781975152819 <p>A volume offering comprehensive coverage of respiratory physiology. Clearly organized with useful charts and diagrams. Review questions at the end of each chapter provide answers but no explanations. Best used as a course supplement during the second year, less ideal for use immediately prior to Step 1.</p>	<b>\$57</b>	Review/ Test/75 q
<b>B+</b>	<b><i>BRS Physiology</i></b> <b>COSTANZO</b> Lippincott Williams & Wilkins, 2018, 304 pages, ISBN 9781496367617 <p>A clear, concise review of physiology that is both comprehensive and efficient, making for fast, easy reading. Includes excellent high-yield charts and tables, but lacks some figures from Costanzo's <i>Physiology</i>. Features high-quality practice questions with explanations in each chapter along with a clinically oriented final exam. An excellent reference during times of focused Step 1 studying, but best if started early in combination with coursework. Respiratory and acid-base sections are comparatively weak.</p>	<b>\$57</b>	Review/ Test/350 q
<b>B+</b>	<b><i>Pathophysiology of Heart Disease</i></b> <b>LILLY</b> Lippincott Williams & Williams, 2020, 480 pages, ISBN 9781975120597 <p>Great resource that outlines an in-depth explanation of both cardiac physiology and pathology. Best used as a supplement when learning the material for the first time, as it helps build a strong foundation. Because the book itself is rather dense, it is not recommend as a primary resource during focused boards studying period.</p>	<b>\$57</b>	Review
<b>B+</b>	<b><i>Acid-Base, Fluids, and Electrolytes Made Ridiculously Simple</i></b> <b>PRESTON</b> MedMaster, 2017, 166 pages, ISBN 9781935660293 <p>A resource that covers major acid-base and renal physiology concepts. Provides information beyond the scope of Step 1, but remains a useful companion for studying kidney function, electrolyte disturbances, and fluid management. Includes scattered diagrams and questions at the end of each chapter. Consider using after exhausting more high-yield physiology review resources.</p>	<b>\$24</b>	Review
<b>B</b>	<b><i>Vander's Renal Physiology</i></b> <b>EATON</b> McGraw-Hill, 2018, 224 pages, ISBN 9781260019377 <p>Well-written text on renal physiology, with helpful but sparse diagrams and practice questions at the end of each chapter. Too detailed for Step 1 review, however. Best if used with organ-based coursework to understand the principles of renal physiology.</p>	<b>\$49</b>	Text

<b>B</b>	<p><b><i>Endocrine Physiology</i></b> MOLINA McGraw-Hill, 2018, 320 pages, ISBN 9781260019353</p> <p>Questions at the end of each chapter are helpful solidify knowledge, but some are not representative of Step 1 questions. Provides more detailed explanations of endocrine physiology than Costanzo review offers, but much too lengthy for Step 1 review. May be useful as a coursework adjunct.</p>	<b>\$59</b> Review
<b>B</b>	<p><b><i>Netter's Physiology Flash Cards</i></b> MULRONEY Saunders, 2015, 200 flash cards, ISBN 9780323359542</p> <p>Flash cards contain a high-quality illustration on one side with question and commentary on the other. Good for self-testing, but too fragmented for learning purposes and not comprehensive enough for boards.</p>	<b>\$40</b> Flash cards