

Preface

The approximately two thousand revised and updated questions in *Microbiology: Pearls of Wisdom, Second Edition* will help you pass medical microbiology and improve your board scores. The primary intent of *Pearls* is to serve as a rapid review of microbiology principles, particularly as they apply to medical microbiology, and to serve as a study aid to improve your performance on medical microbiology examinations. With this goal in mind, the text is written in a unique rapid-fire, question/answer format that is more efficient than the multiple choice format common in most other review books. You will receive immediate gratification with a correct answer. Questions themselves often contain a "pearl" reinforced in association with the question/answer.

Additional hooks are often attached to the answer in various forms, including mnemonics, visual imagery, repetition, and humor. Information not requested in the question is often included in the answer and serves as a nexus to help in retrieving the information during an exam. Information is often included in more than one question and answer, worded differently, but accurately, to help those with alternative learning styles. Emphasis has been placed on evoking both key and "trivial" facts that are easily overlooked or quickly forgotten and yet somehow always seem to appear on microbiology exams. Remember, what you might consider trivia, a microbiologist might consider essential knowledge. Some questions have answers without explanations. This is done to enhance the ease of reading and rate of learning. Explanations often occur in a later question or answer.

It may happen that upon reading an answer you may think, "Why is that?" or, "Is that right?" If this happens to you, GO CHECK! While researching answers to questions, I usually checked several current sources, just to make sure. The answers given to questions might differ from what you think is correct for two main reasons: (1) the answers may change as new research becomes available, or (2) your professors may not be keeping up with the current knowledge (no fault of theirs; it's a broad field). To truly assimilate these disparate facts into a framework of knowledge absolutely requires further reading in the surrounding concepts. Information learned by actively seeking an answer to a particular question is much better retained than information passively read. And be sure to take notes as you progress through this book! If you have a book from which you are trying to learn and you do not write notes in the book, on a sheet of paper, in a word processor, etc., you are using the book incorrectly and not learning as much as you could.

To best use this book, use a 3 × 5 card to cover the answers. If you miss the answer, put a check beside it using blue or black ink. After you complete a section, start over. Skip the questions that you got correct the first time and only attempt the questions with a check. If you miss a checked question a second time, place another check using red ink. After you complete the section again, start over. Only attempt the questions with the red checks (red makes them easier to find quickly, and time is at a premium). If you miss the question again (i.e., this is your third attempt), forget the question. You will probably miss the question on the exam. However, if you are stubborn you can try to learn the material, get the answer correct on the exam, and prove me wrong!

Pearls does have limitations. By its very nature, soon after publication, many of the concepts will not represent the cutting edge of microbiology. There may be conflicts among texts and even among courses of medical microbiology. New discoveries may result in knowledge that deviates from that which represents the correct answer on an examination. To minimize this, I have selected the information I believe is most likely correct for test purposes. As I tell my own students, there are exceptions to almost everything that is taught to you. Fortunately, most exams are written to see if you know and understand the general principles, not these minor exceptions.

Great effort has been made to verify the answers to the questions. I have updated the numerous changes in the names of organisms since the first edition. Drugs of choice were current at publication,

but will likely change as drug resistance emerges and new therapies evolve. Some questions retained from the first edition now have different answers reflecting new discoveries. Some of these may change again. As stated earlier, if you doubt an answer, GO CHECK! Please make me aware of any errors or oversights you find; I welcome your comments, suggestions, and criticisms. I hope to make improvements in a third edition and would greatly appreciate your input. Please write to S. James Booth, PhD at jbooth@unmc.edu. I look forward to hearing from you.

Study hard and good luck!

S.J.B.