

Preface

The *PET and PET/CT Study Guide* is designed for technologists, practitioners, and trainees in medical imaging to serve as a practical tool to study multiple aspects of PET and PET/CT. The book was written and reviewed by individuals from a wide spectrum of nuclear medicine expertise: an experienced nuclear medicine technologist, a new graduate of nuclear medicine technology program, a practicing nuclear medicine physician, and a nuclear medicine college teacher. A broad assembly of authors and contributors, with different nuclear medicine experiences, provides an array of problems that technologists, practitioners, and trainees can, and will, encounter in everyday practice. Some of the questions are easy, and some of them are not. In either case, the book is not designed to test the reader's knowledge. Rather, it should be viewed as tool to learn and build the skills necessary in utilizing this compelling modality in daily practice. It is said that a picture is worth a thousand words. Our book includes more than 75 images, graphics, and diagrams. It is our goal for these illustrations to help readers get to the bottom of the problem and to come up with the right solution quickly.

The book is divided into five chapters and an appendix. We kick things off with a chapter on test taking strategies, which is designed to equip readers with practical tools and methods to successfully navigate through the multiple-choice exam. It was written by a recent graduate and the hands-on experience provides readers with valuable insider tips.

Chapters 2–5 contain the test problems. Each test includes multiple-choice questions with a total number of 650 problems; chapters are organized into levels of complexity, from the easiest to the most difficult.

Generally, tagging questions as easy or difficult is a tricky matter, and highly subjective. Nevertheless, for learning purposes, the proposed classification will be beneficial to readers. Each chapter is a separate entity with answers and optional short explanations included. This will work like building blocks, where the completion of the first test will prepare the reader to progress to the second test, and so on.

Appendix A consists of the critical formulas, numbers, and normal range values for some of the quantitative nuclear medicine procedures. It is suggested, for those

preparing for the licensee examination, to commit these to memory; for others, it is for reference purposes only.

Appendix B offers a list of commonly used abbreviations that are encountered in everyday nuclear medicine practice, and beyond. The list can appear as too short or simply too long. Some readers will find the included terms as “unnecessary”; some readers will not find the abbreviation they are looking for. One size never fits all, and thus the subjective choices, as is our selection, are not perfect. Use it to your advantage. There is enough space between the lines, and in the margins, to modify to your own preferences. Understanding the acronyms will pay off in the long run; simply being able to decode it, will be short-lived. Therefore, a thorough review of the abbreviations before the examinations can be very helpful, and highly suggested.

Appendix C presents a glossary of frequently used terms in nuclear medicine, and again, we strongly advise a thorough review of the terms.

Appendix D is comprised of web site addresses that offer priceless and free information on many topics related to the nuclear medicine field.

The present collection of problems mirrors the exam content as provided by NMTCB. The questions cover radiation safety, radionuclides, and instrumentation to name a few. The reader should never be discouraged when the type of “never heard of” or “it is over my head” problem is encountered. We advise students to go through these questions carefully, and answer diligently—you will be surprised how much you already know and how much you can still learn. Both factors serve as great motivators. Learning should be fun, entertaining, and contagious. Positron emission tomography is a powerful, challenging, and rapidly evolving field of medicine and the only way to keep pace with its development is through continuous learning. Make it fun, and make it a habit—this is the kind of addiction that you can afford. The benefits are overwhelming. You can receive the 24 continuing education credit hours and keep your professional license. You can read, you can study, you can investigate, and you can challenge yourself and others. Best of all you can exceed...your own expectations. The choice is yours.

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