Basic Science of Nuclear Medicine – the Bare Bones Essentials
Kai H. Lee PhD

Through concise, straightforward explanations and supporting graphics that bring abstract concepts to life, the new Basic Science of Nuclear Medicine – the Bare Bones Essentials is an ideal tool for nuclear medicine technologist students and nuclear cardiology fellows looking for an introduction to the fundamentals of the physics and technologies of modern day nuclear medicine.

Chapter 1. Atomic and Nuclear Structures
Chapter 2. Radioactive Decay Mechanisms
Chapter 3. Production of Radionuclides
Chapter 4. Calculation of Radioactivity
Chapter 5. Interaction of Radiation with Matter
Chapter 6. Radiation Detection and Measurements
Chapter 7. Principles of Gamma Cameras
Chapter 8. Single Photon Emission Tomography
Chapter 9. Computed Tomography/SPECT/CT
Chapter 10. Positron Emission Tomography
Chapter 11. Positron Emission Tomography/Magnetic Resonance Imaging
Chapter 12. Quality Assurance of Nuclear Medicine Instruments
Chapter 13. Fundamentals of Counting Statistics
Chapter 14. Radiation Safety and Regulations of Ionization Radiation
Chapter 15. Dosimetry of Internally Deposited Radionuclides
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Coming this Spring

**Nuclear Cardiology Technology Study Guide, 2nd Edition**

Ann Marie Alessi, BS, CNMT, NCT, RT(N), Mary Beth Farrell, MS, CNMT, NCT, FSNMMI-TS, Barbara J. Grabher, CNMT, RT(N), NCT, Mark C. Hyun, CNMT, NCT, RT(N)(R), FASNC, Sara G. Johnson, MBA, CNMT, RT(N), NCT, Peggy Squires, BS, CNMT, NCT

Revised in 2015, the new *Nuclear Cardiology Technology Study Guide, 2nd Edition,* will enhance and reinforce your knowledge of cardiac anatomy, physiology, pathology, and electrophysiology as you prepare for the NMTCB’s nuclear cardiology specialty examination.

The content of the lecture series and this written study guide carefully follows the published content specifications of the NMTCB’s nuclear cardiology examination includes basic ECG interpretation, stress test end points, exercise capacity and performance measures, as well as cardiac and emergent medications.

**NCT Online Review Workshop for Technologists**
The NCT (Nuclear Cardiology Technologist) Online Review Workshop is designed to prepare technologists for the NMTCB’s NCT Exam. The course reviews the NMTCB’s nuclear cardiology examination content specifications.

**PET Online Review Workshop for Technologists**
The PET Online Review Workshop is designed to help prepare technologists for the NMTCB’s PET Exam. Following the NMTCB’s content outline, the workshop offers a comprehensive review of both PET and PET/CT.

See page 8 for additional information or visit: www.snmmi.org/onlinecourses
Quick Reference Protocol Manual for Nuclear Medicine Technologists
Mary Beth Farrell, MS, CNMT, NCT, FSNMMI-TS, Editor, Eleanor S. Mantel, CNMT, NCT, RT(N), FSNMMI-TS, Danny A. Basso, CNMT, NCT, FSNMMI-TS, Kathy S. Thomas, MHA, CNMT, PET, FSNMMI-TS, and Bryan R. Kerr, CNMT, PET, NCT, RT(N)(CT)(ARRT)
This manual is designed to be a quick reference for technologists to aid in performing the most common nuclear medicine procedures ordered by a referring physician. Each protocol lists the essential information for the procedure, including clinical indications and contraindications; patient preparation and education/instructions; radiopharmaceutical identity, dose, and route of administration; specific information about non-radioactive drugs used in the procedure; camera-specific setup and acquisition instructions; patient position; computer-specific processing instructions; display/PACs instructions; labeling instructions, adjunct imaging/interventions, and precautions.
2014, 344 pp., softcover; ISBN: 097-8093200488; SNMMI Member Price $59.95; Non-member Price $83.95

Steves’ Review of Nuclear Medicine Technology, 4th edition
Norman E. Bolus, MPH, CNMT, and Amy Byrd Brady, BS, CNMT
This detailed overview of nuclear medicine technology—updated and expanded to cover patient care, instrumentation, nuclear oncology, electrocardiography, interventional drugs and new therapeutic agents—is complemented by hundreds of self-evaluation questions and answers mirroring the structure of national certification examinations. This new edition features an additional 200 self-evaluation questions, essential content on CT, PET, Advanced Cardiac, and Math Primer. The proven performance booster!

Practical Mathematics in Nuclear Medicine Technology, 2nd Edition
Patricia C. Wells, MAE, CNMT, and Martha Pickett, MHSA, CNMT
An essential tool for technologist students, the newly updated Practical Mathematics in Nuclear Medicine Technology helps enhance basic math skills within nuclear medicine technology and increases general knowledge of statistics, radiation safety, instrumentation, radiopharmacy and clinical procedures. Informative word problems and explanations throughout the publication help your students prepare for the CNMT exam and real-life situations. If you prepare others for a career in nuclear medicine technology, add this must-have book to your materials today!
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Quick-Reference Protocol Manual
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Mary Beth Farrell, MS, CNMT, NCT, FSNMMI-TS, Editor
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Denise A. Bass, CNMT, NCT, FSNMMI-TS
Kathy S. Thomas, MHA, CNMT, PET, FSNMMI-TS
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Nuclear Cardiac Imaging Terminology and Technical Aspects, 2nd Edition
Elpida S. Crawford, MS, CNMT, and Syed Sajid Husain, MD, MS, MAS, FACNP
This revised 2nd edition focuses on the basic principles and technical aspects of all nuclear cardiac imaging studies; this book is the perfect companion for new and veteran technologists and clinicians.
The SNMMI-TS has reviewed and approved Nuclear Cardiac Imaging for a maximum of 13.0 VOICE (Category A) credits.

A Clinician’s Guide to Nuclear Medicine, 2nd edition
Andrew Taylor, MD; David M. Schuster, MD; Naomi Alazraki, MD
The perfect compendium of the diagnostic and therapeutic uses of nuclear medicine, A Clinician’s Guide to Nuclear Medicine reviews nuclear medicine procedures, available alternatives, advantages and limitations of each, and provides helpful information to aid in preparing patients.
2006, 440 pp., softcover; ISBN: 978-0-972647-87-8; SNMMI Member Price $34; Non-member Price $51

A Clinician’s Guide to Nuclear Oncology: Practical Molecular Imaging and Radionuclide Therapies
Naomi Alazraki, MD; Mark J. Shumate, MD, MPH; David Kooby, MD
Use A Clinician’s Guide to Nuclear Oncology as your go-to guide for critical information on using nuclear medicine in oncology. This essential resource allows you to quickly locate pertinent information related to diagnosing, staging and treating cancer patients and patients suspected of having cancer. The Clinician’s Guide clearly summarizes the indications and applications of molecular imaging and nuclear medicine for diagnosis, staging and therapy of malignancy.

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Procedure Standards Manual
SNMMI Practice Guidelines Committee
Stay current with the latest technologies and approved radiopharmaceuticals available. The Procedure Standards Manual includes all current, standardized protocols for nuclear medicine procedures. The simple binder design allows you to insert new and updated procedures, which can be downloaded and printed from the SNMMI Web site—ensuring your department’s materials are always up-to-date. Always Up to Date, binder; Order #: 1525; SNMMI Member Price $70; Non-member Price $95

Computers in Nuclear Medicine: A Practical Approach, 2nd Edition
Kai H. Lee, PhD
Expand your knowledge of the principles, design and capabilities of computer usage in nuclear medicine. This comprehensive guide covers all aspects of computing tools in nuclear medicine imaging, including creating an all-digital nuclear medicine department, image acquisition methods, qualitative & quantitative image analysis, nuclear cardiology and emission computed tomography. Add this great educational tool to your collection today. 2005, 184 pp., softcover, Order #: 0-972647-84-8; SNMMI Member Price $39; Non-member Price $55
Use the new NCT Online Review Workshop to strengthen your knowledge of cardiac anatomy, physiology, pathology, and electrophysiology as you prepare for the NMTCB’s nuclear cardiology specialty examination.

Learning Objectives include:

• Define coronary anatomy and coronary artery distribution.
• Relate conduction pathway to an electrocardiogram.
• Describe normal and abnormal electrocardiograms, recognize life-threatening arrhythmias.
• Correctly select the appropriate examination for the diagnosis of various cardiac anomalies.
• List the radiopharmaceuticals and acquisition parameters for various non-MPI studies.
• Identify myocardial PET radiopharmaceuticals and the indications for their use.
• Name common cardiac medications used in the management of coronary artery disease.
• Name myocardial disease states and indications for performing myocardial perfusion imaging.
• Compare various myocardial perfusion imaging protocols and how they are used in clinical practice.
• Describe methods used for processing myocardial SPECT images and how selection of processing parameters can affect the final image quality.
• Identify motion artifacts and assess the appropriate corrective action needed.
• Discuss camera system quality control procedures and frequency of performance.
• Describe the radiopharmaceuticals used in myocardial imaging; their bio-distribution and methods of localization.
• Recognize normal and abnormal physiologic responses to exercise stress.
• Compare the advantages and disadvantages of the available pharmacologic stress agents; contra-indications, adverse effects and medication interactions.
• Review protocols for responding to complications and emergency situations.
• Analyze the prognostic value and outcomes data for myocardial perfusion imaging.
• Identify common artifacts in myocardial SPECT imaging.
• Discuss how the interpreting physician integrates myocardial perfusion and functional quantitative analysis.
• Review of cardiac anatomy, physiology and pathologies; and how they are assessed by nuclear cardiology techniques.

SNMMI Member Price $275; Non-member Price $385

The SNMMI-TS has reviewed and approved the NCT Online Review Workshop for a maximum of 14.0 VOICE (Category A) credits.
The new PET Online Review Workshop has been designed to help nuclear medicine professionals develop the essential level of understanding in PET and PET/CT needed to pass the NMTCB’s PET Exam.

Focusing on the fundamentals of PET imaging in oncology, cardiology and neurology, this online program includes comprehensive lectures covering the NMTCB’s content outline, and mock exam.

Learning Objectives include:
- PET Radiopharmaceutical Production
- PET Radiopharmaceuticals
- Radiation Principles and Basic Radiation Detection Devices
- PET Instrumentation
- CT Instrumentation
- Quality Control and Instrumentation Artifacts
- Radiation Safety in PET/CT
- Patient Care and Emergency Procedures
- Oncology: Patient Preparation and Imaging
- PET Imaging in Oncology
- Incorporation of CT and Contrast Media Into PET Practices
- Clinical Artifacts
- PET Imaging of the Brain
- PET Imaging of the Heart

SNMMI Member Price $350; Non-member Price $490

The SNMMI-TS has reviewed and approved the PET Online Review Workshop for a maximum of 14.0 VOICE (Category A) credits.

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