

The Standard of Care: From Nuclear Radiology to Nuclear Medicine

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We are moving forward from nuclear *radiology* to nuclear *medicine*. The emergence of molecular diagnostics and molecular radiotherapies demands changes in training to achieve broader and deeper clinical competence (1,2). We are intimately involved in the management of cancer and neurologic, cardiac, infectious, and inflammatory diseases, among others. Nuclear theranostics (the use of radionuclide pairs for targeted molecular imaging and molecular radiotherapy) are becoming an important component of cancer care. Targeting the somatostatin receptors, the norepinephrine reuptake transporter, and, of course, the prostate-specific membrane antigen is becoming the standard of care in patients with neuroendocrine tumors and prostate cancer, respectively.

However, we need to be razor sharp and focused on training and learning to deploy our services to the greatest benefit of our patients. We need to be experts in all aspects of the diseases that we diagnose or treat. For instance, meaningful contributions to the care of prostate cancer patients require knowledge of risk classifications, stage-dependent prognosis, and outcomes as well as understanding of sequential therapies at all disease stages and across modalities including surgery, external-beam radiation, and multiple lines of medical management strategies. As another example, immunotherapies will in the future be combined with molecular radiotherapies. Therefore, we need to understand pharmacologic and theranostic targets, synergies, and mechanisms of action, risks, benefits, side effects, and outcomes of these treatments. In other words, in order to contribute significantly we need to understand the current and emerging standards of care. Multiple lines of treatment are not limited to cancer, but are now the standard in many diseases. We need to understand the appropriate sequential positioning of our services in these settings.

To advance our clinical knowledge and competence and to promote our reintegration into medicine, we are initiating a new featured review article series entitled “The Standard of Care,” with the first contributions published later this year. Standard-of-care articles will be invited contributions by world-leading experts in their respective fields.

We will also consider Challenging Case Studies in which imaging contributes to solving clinical problems. These reports will be concise, contain the pertinent medical history, and provide the differential diagnosis. We will present the final diagnosis in each subsequent issue of *The Journal of Nuclear Medicine (JNM)*.

Nuclear medicine is undergoing rapid changes. “It represents a vibrant and viable specialty encompassing molecular imaging and molecular radiotherapy. Nuclear theranostics is the most convincing example of precision medicine, as whole-body target expression that provides information for optimizing treatment approaches can be measured noninvasively” (1). We will continue to promote these changes with our Continuing Medical Education series, the State-of-the-Art articles, Focus on Molecular Imaging, and Hot Topics, and now with Standard of Care and Challenging Case Studies.

Our entire team of *JNM* staff, board members, and associate editors is grateful for your shared excitement and interest in our journal.

REFERENCES

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