Focus on Quality: Update on the Development of Evidence-Based Appropriate Use Criteria

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In March 2014, Congress passed the Protecting Access to Medicare Act, which tied physician reimbursement for advanced diagnostic imaging services to appropriate use criteria (AUC). The Centers for Medicare & Medicaid Services (CMS) published in November 2015 the Medicare Physician Fee Schedule (MPFS) final rule for 2016, which now outlines a specified process for development and approval of AUC, as well as processes for obtaining approval as a provider-led entity (PLE).

PLEs are organizations, such as medical specialty societies, that have been developing AUC; now, to continue doing so, they must meet the new requirements delineated in the final Medicare rule. A PLE must apply before December 31 of a given year to be included in the list of approved PLEs, which publishes on June 30 of the following year. SNMMI has applied for this approval.

The original Protecting Access to Medicare legislation also detailed the delivery of AUC via a clinical decision support tool, which referring physicians would need to utilize before ordering advanced diagnostic imaging services. These tools were originally scheduled to launch by January 2017; however, CMS is now expected to publish more substantive information on development of clinical decision support tools, which will delay the implementation deadline by at least a year. This year’s MPFS rule finalized the AUC approval process; the 2017 and 2018 rules will finalize the additional components of the program.

AUC development is an intensive, time-consuming process. It is also a collaborative effort. In order to develop multidisciplinary clinical guidance documents, SNMMI is working with 13 other specialty societies and has contracted with the Oregon Health Sciences University (OHSU) Evidence Practice Center to conduct a thorough and objective systematic review for the 4 topic areas. These systematic reviews will provide the foundation for writing the AUC documents. Overall, the society is following the criteria for developing trustworthy guidelines created by the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine. In addition, the Rand/University of California, Los Angeles methodology is being used for the stepwise approach, along with the modified Delphi technique to form consensus.

Last year, SNMMI’S Guidance Oversight Committee selected 4 high-priority topics for development of AUC. As of March 2016, the status of each is as follows:

- **Bone Scintigraphy in Malignant Disease**: This workgroup is farthest along in the AUC development process. It has rated and scored the appropriateness of the clinical indications, written the first draft of the document, and is now reviewing and revising the different sections and subsections. Once these are finalized, the document will be sent out for peer review.
- **Ventilation Perfusion Scan in Pulmonary Embolism**: The workgroup has rated and scored the appropriateness of the clinical indications and begun drafting the document.
- **Hepatobiliary Scintigraphy in Abdominal Pain**: Rating and scoring have been completed, and the first draft of the AUC is underway.
- **PET/CT Restaging of Malignant Diseases**: This workgroup had to revise the scope of the systematic review in order to specify the differences between restaging and recurrence of malignancies so that the review would be more comprehensive and useful. The revised review, conducted by OHSU, is now in hand. Next steps include discussion of the revision, finalizing clinical indications, scoring and rating, and drafting the document.

SNMMI leadership is committed to developing a comprehensive library of multidisciplinary, evidence-based AUC for high-value nuclear medicine procedures. This endeavor will take a number of years to accomplish, requiring sustained effort and significant resources.

During this year’s SNMMI Mid-Winter Meeting, the Guidance Oversight Committee approved 6 additional topics for AUC development:

- Prostate cancer imaging;
- Somatostatin imaging;
- Infection imaging;
- Nuclear medicine procedures for thyroid cancer (including $^{131}$I and $^{123}$I);
- Gastrointestinal transit; and
- $^{223}$Ra.

The SNMMI Evidence and Quality Department has started laying the groundwork to form multidisciplinary workgroups for these topics, and work on the AUC should begin shortly after the SNMMI Annual Meeting in San Diego, CA.

We are all deeply indebted to the members of the AUC workgroups for volunteering their time and expertise to strengthen the field of nuclear medicine and molecular imaging by establishing the highest standards of quality and evidence-based practice.
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