Moving Beyond Guidelines to Ensure High-Quality Cancer Care in the United States

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In a collaborative effort to better define the guidelines for the regional nodal management of melanoma, ASCO and the Society of Surgical Oncology (SSO) have put forth a Joint Clinical Practice Guideline.¹ Based on an expert panel's assessment of a systematic review of the literature, these guidelines attempt to clarify the appropriate use of sentinel lymph node biopsy (SLNB) and completion lymph node dissection (CLND) for melanoma. These guidelines are generally similar to the well-established guidelines put forth by the National Comprehensive Cancer Network.² Guidelines are clearly important to help provide treatment recommendations in a complex and rapidly changing field such as melanoma, but moving forward, two important questions need to be addressed: (1) Are these guidelines reaching the intended audience? (2) What can be done to ensure widespread, systematic adherence with melanoma treatment guidelines?

Although these guidelines will be scrutinized by many melanoma experts across the country, it has become evident that the clinicians most in need of reviewing these guidelines will likely never see or hear of these recommendations. The audiences in need are those who do not routinely care for large numbers of melanoma patients, do not actively participate in multidisciplinary conferences, do not regularly review related journals, or do not frequent scientific or relevant continuing medical education meetings. Adherence with medical guidelines is less than ideal in the United States, with compliance rates frequently measuring only 55% to 75%,^{3,4} and this appears to also be true with respect to the management of regional lymph nodes in melanoma.⁵⁻⁸

Guidelines have generally recommended SLNB for intermediate-thickness melanomas and CLND for positive SLNs for quite some time.² But when to use these two procedures has evidently caused some confusion, as evidenced anecdotally and by studies of melanoma care in the United States. Patients often present for consultation to physicians specializing in melanoma after undergoing nonguideline care elsewhere. Subsequent treatment and prognosis can be impaired by this initial mismanagement.

Examination of single-institution and national data have suggested that SLNB may often be underused in melanoma populations for whom the guidelines recommend the procedure. Studies using the Surveillance, Epidemiology, and End Results (SEER) database and the National Cancer Data Base (NCDB) have demonstrated that SLNB is underused in patients for whom the procedure is recommended on the basis of established guidelines. In the most recent time period, only approximately 50% of patients with intermediate-thickness melanomas underwent an SLNB.^{6,8,9} Though the proportion undergoing SLNB in adherence with guidelines has increased

over time, it seems that SLNB is still being underused. These national cancer registry data for SLNB have recently been questioned for breast cancer,¹⁰ but it is evident that not all patients with melanoma with an indication for a SLNB in the United States are undergoing the procedure. This is further supported by single-institution series, which have bravely also shown that melanoma treatment guidelines are frequently not followed at their own center, even at teaching hospitals, particularly with respect to SLNB.^{11,12} Similar issues have been identified in the use of completion lymph node dissection in the setting of a positive SLN. National evaluations using NCDB and SEER suggest that recommended guidelines were not being used routinely in everyday practice.^{5,9} Interestingly, only 50% of patients in our study underwent a completion nodal dissection, though this was higher at National Comprehensive Cancer Network- and National Cancer Institute-designated cancer centers. Certainly, there may be some coding inaccuracies that partly account for these findings, but nonetheless, a large proportion of patients are not undergoing a CLND for melanoma in the setting of a positive SLN. These recommendations may change with the results of the Multicenter Selective Lymphadenectomy Trial II (MSLT II), but for now, CLND is recommended.

As a result, it is clear that the mere development and publishing of guidelines is not enough to ensure high-quality cancer care. Additional approaches are needed to increase the likelihood of adherence with established treatment recommendations.¹³ First, the most critical guideline recommendations need to be transformed into quality metrics that can be easily abstracted, preferably from existing data sources or electronic medical records.⁷ The methods used to develop metrics must entail a formal process with input from representatives of all relevant stakeholders. Measures must demonstrate usability, relevance, feasibility, validity, and reliability. The second step is based on the concept of continuous quality improvement whereby data regarding the quality of care are collected and submitted to a central organization and analyzed, and the benchmark results are provided to participating providers to show their performance on quality metrics in comparison to the other participating providers. When a hospital identifies that their performance is significantly worse than that of the other hospitals, specific targeted quality improvement initiatives can be undertaken to improve that hospital's performance. The Commission on Cancer through the NCDB and ASCO through its Quality Oncology Practice Initiative (QOPI) offer this type of feedback, although the information available to hospitals is currently fairly limited and neither program includes any information specific to melanoma treatment. A potentially more effective version of this approach is to not only

report the results back to the individual participating hospitals, but to also report the data publicly. This approach has been used in several states and by the Centers for Medicare & Medicaid Services (CMS) to successfully spur quality improvement.^{14,15} Third, reporting of quality metrics or requiring a specific level of performance can be tied to reimbursement in pay-for-performance or value-based purchasing programs, although the effectiveness of this approach is uncertain.^{16,17} Finally, an alternate approach could be to require providers to preoperatively obtain approval for the planned procedure on the basis of certain basic information about the individual patient (eg, melanoma thickness, presence of adverse prognostic features, and presence of clinically evident lymphadenopathy). The planned procedure for that patient would be verified by the CMS or private payers by means of an algorithm that uses the patient factors to identify the guideline-recommended treatment approach. If the planned treatment is different from what is expected from the algorithm, a reason can be articulated or a peer-to-peer discussion can be undertaken. This is already done for expensive imaging tests. This would allow preemptive action to occur and prospectively ensure that individual patients are being treated in accordance with established guidelines, rather than simply retrospectively reporting hospital compliance with quality metrics.

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Although putting forth and clarifying guidelines is an important endeavor, the challenge is to ensure that the thoughtfully developed guidelines are followed in everyday practice across the country on a routine basis. Publishing guidelines and simply educating interested providers has not resulted in a highly reliable system of care. A combination of the above approaches will be required depending on the disease and type of guideline, and the work of ensuring guideline adherence may prove to be the most challenging aspect of ensuring high-quality cancer care for patients with melanoma.

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