Sentinel Lymph Node Biopsy for Melanoma: American Society of Clinical Oncology and Society of Surgical Oncology Joint Clinical Practice Guideline

By Sandra L. Wong, MD, MS, Patricia Hurley, MHSc, and Gary H. Lyman, MD, MPH

University of Michigan, Ann Arbor, MI; American Society of Clinical Oncology, Alexandria, VA; and Duke University, Durham, NC

Metastasis to regional nodes is an important prognostic factor in patients with early-stage melanoma.^{1,2} As such, it is critically important for clinicians to identify patients for whom the expected benefits of resecting regional lymph nodes outweigh the risks of surgical morbidity.

Sentinel lymph node (SLN) biopsy is commonly used by surgeons as a valuable staging procedure for patients with melanoma who are at risk of clinically occult nodal metastases, and has been endorsed by the American Joint Committee on Cancer. This highly accurate and low-morbidity staging procedure should be used to guide treatment decisions and entry into clinical trials.³

To develop and formalize clinical practice guideline recommendations for the use of SLN biopsy in oncology practice,

ASCO and the Society of Surgical Oncology (SSO) convened a joint expert panel. The guideline addresses two overarching clinical questions: (1) What are the indications for SLN biopsy? and (2) What is the role of completion lymph node dissection?

Recommendations

The expert panel based their recommendations on their assessment of evidence from a comprehensive systematic review and meta-analysis of the literature published from January 1990 through August 2011.⁴

Journal of Clinical Oncology (JCO) and *Annals of Surgical Oncology (ASO)* jointly published a summary of the Clinical Practice Guideline.⁵ The summary is an overview of the full

THE BOTTOM LINE

SENTINEL LYMPH NODE BIOPSY FOR MELANOMA: ASCO AND SSO JOINT CLINICAL PRACTICE GUIDELINE

Intervention

- Sentinel lymph node (SLN) biopsy for patients with newly diagnosed melanoma

Target Audience

- Surgical oncologists, medical oncologists, dermatologists, primary care physicians, pathologists, nuclear medicine specialists

Key Recommendations

- Intermediate-thickness melanomas: SLN biopsy is recommended for patients with cutaneous melanomas of 1 to 4 mm Breslow thickness at any anatomic site.
- Thick melanomas: SLN biopsy may be recommended for staging purposes and to facilitate regional disease control for patients with melanomas that are T4 or > 4 mm Breslow thickness.
- Thin melanomas: There is insufficient evidence to support routine SLN biopsy for patients with melanomas that are T1 or < 1 mm Breslow thickness, although it may be considered in selected high-risk patients.
- Completion lymph node dissection is recommended for all patients with a positive SLN biopsy.

Methods

- An expert panel was convened to develop Clinical Practice Guideline recommendations on the basis of their review of evidence from a systematic review and meta-analysis of the medical literature.

Additional Information

- A summary of the full Clinical Practice Guideline is available in a joint JCO and ASO publication.⁵

The full guideline (which includes a comprehensive discussion of the literature, a description of the methodology, and a complete reference list), along with an appendix, a Data Supplement, and clinical tools and resources, can be found on ASCO's Web site (www.asco.org/guidelines/snbmelanoma) or SSO's Web site (www.surgonc.org/practice-policy/practice-management/clinical-guidelines/snbmelanoma.aspx).

Table 1. Summary of Clinical Practice Guideline Recommendations

Clinical Question	Recommendation
1. What are the indications for sentinel lymph node biopsy?	<p>Intermediate-thickness melanomas: SLN biopsy is recommended for patients with intermediate-thickness cutaneous melanomas (1 to 4 mm Breslow thickness) of any anatomic site. Routine use of SLN biopsy in this population provides accurate staging, with high estimates for PSM, and acceptable estimates for FNR, PTPN, and PPV.</p> <p>Thick melanomas: Although there are few studies focusing specifically on patients with thick melanomas (T4; > 4 mm Breslow thickness), the use of SLN biopsy in this population may be recommended for staging purposes and to facilitate regional disease control.</p> <p>Thin melanomas: There is insufficient evidence to support routine SLN biopsy for patients with thin melanomas (T1; < 1 mm Breslow thickness), although it may be considered in selected patients with high-risk features, when the benefits of pathologic staging may outweigh the potential risks of the procedure. Such risk factors may include ulceration or mitotic rate $\geq 1/\text{mm}^2$, especially in the subgroup of patients with Breslow thickness 0.75 mm to 0.99 mm.</p>
2. What is the role of completion lymph node dissection?	CLND is recommended for all patients with a positive SLN biopsy. CLND achieves regional disease control, although whether or not CLND after a positive SLN biopsy improves survival is the subject of the ongoing Multicenter Selective Lymphadenectomy Trial II.

Abbreviations: CLND, completion lymph node dissection; FNR, false-negative rate; PSM, proportion successfully mapped; PTPN, post-test probability negative; PVP, positive predictive value; SLN, sentinel lymph node.

ASCO/SSO Joint Clinical Practice Guideline (available online only) and provides a brief discussion of the relevant literature for each recommendation. Table 1 includes the recommendations and is reprinted from the ASCO/SSO Joint Clinical Practice Guideline.⁵

The full guideline, which includes comprehensive discussions of the literature, methodology information, and additional citations, can be found online on ASCO's Web site (www.asco.org/guidelines/snbmelanoma) or SSO's Web site (www.surgonc.org/practice-policy/practice-management/clinical-guidelines/snbmelanoma.aspx). An appendix that provides a discussion of some of the key technical considerations for SLN biopsy, the guideline's Data Supplement, and clinical tools and resources is also available on the Web sites. A PowerPoint slide set is available as a Data Supplement to this article.

Authors

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McMasters, R. Dirk Noyes, Lynn Mara Schuchter, Matias E. Valsecchi, Donald L. Weaver, and Gary H. Lyman.

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Author Contributions

Conception and design: Sandra L. Wong, Gary H. Lyman

Administrative support: Patricia Hurley

Collection and assembly of data: Gary H. Lyman

Data analysis and interpretation: Sandra L. Wong, Gary H. Lyman

Manuscript writing: All authors

Final approval of manuscript: All authors

Correspondence: guidelines@asco.org. Reprint requests: ASCO, 2318 Mill Road, Suite 800, Alexandria, VA 22314; e-mail: guidelines@asco.org.

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