

**TABLE 105-3 STAGING CRITERIA FOR MELANOMA**

Pathologic and TNM Stage	Thickness, mm	Ulceration	No. of Involved Lymph Nodes	Nodal Involvement	15-Year Survival Estimate (%)
0					98
Tis	In situ	No	0	None	
IA					92
T1a	<1	No, mitosis <1/mm	0	None	
IB					80
T1b	<1	Yes or mitosis >1/mm	0	None	
T2a	1.01–2	No	0	None	
IIA					62
T2b	1.01–2	Yes	0	None	
T3a	2.01–4	No	0	None	
IIB					51
T3b	2.01–4	Yes	0	None	
T4a	>4	No	0	None	
IIC					37
T4b	>4	Yes	0	None	
IIIA					68
N1a	T1–4a	No	1	Microscopic	
N2a	T1–4a	No	2 or 3	Microscopic	
IIIB					38
N1a	Any	Yes	1	Microscopic	
N2a	Any	Yes	2 or 3	Microscopic	
N1b	Any	Yes or no	1	Macroscopic	
N2b	Any	Yes or no	2 or 3	Macroscopic	
N2c	Any	Yes or no	In-transit metastases/satellites, no nodal involvement		
IIIC					22
N1b	Any	Yes or no	1	Macroscopic	
N2b	Any	Yes or no	2 or 3	Macroscopic	
N2c	Any	Yes or no	In-transit metastases/satellites, no nodal involvement		
N3	Any	Yes or no	4+ metastatic nodes, matted nodes or in-transit metastases/satellites, with metastatic nodes		
IV		Distant metastasis			<10
M1a		Skin, subcutaneous			
M1b		Lung			
M1c		Other visceral site			
		Elevated lactate dehydrogenase			

helps identify patients at high risk for relapse who may be candidates for adjuvant therapy. The initial (sentinel) draining node(s) from the primary site is (are) identified by injecting a blue dye and a radioisotope around the primary site. The sentinel node(s) then is (are) identified by inspection of the nodal basin for the blue-stained node and/or the node with high uptake of the radioisotope. The identified nodes are removed and subjected to careful histopathologic analysis with serial section using hematoxylin and eosin stains as well as immunohistochemical stains (e.g., S100, HMB45, and MelanA) to identify melanocytes.

Not every patient requires a SLNB. Patients whose melanomas are  $\leq 0.75$  mm thick have <5% risk of sentinel lymph node (SLN) disease and do not require a SLNB. Patients with tumors >1 mm thick generally undergo SLNB. For melanomas 0.76–1.0 mm thick, SLNB may be considered for lesions with high-risk features such as ulceration, high mitotic index, or lymphovascular invasion, but wide excision alone is the usual definitive therapy. Most other patients with clinically negative lymph nodes should undergo a SLNB. Patients

whose SLNB is negative are spared a complete node dissection and its attendant morbidities, and can simply be followed or, based on the features of the primary melanoma, be considered for adjuvant therapy or a clinical trial. The current standard of care for all patients with a positive SLN is to perform a complete lymphadenectomy; however, ongoing clinical studies will determine whether patients with small-volume SLN metastases can be managed safely without additional surgery. Patients with microscopically positive lymph nodes should be considered for adjuvant therapy with interferon or enrollment in a clinical trial.

#### MANAGEMENT OF REGIONALLY METASTATIC MELANOMA (STAGE III)

Melanomas may recur at the edge of the scar or graft, as satellite metastases, which are separate from but within 2 cm of the scar; as in-transit metastases, which are recurrences >2 cm from the primary lesion but not beyond the regional nodal basin; or, most commonly, as metastasis to a draining lymph node basin. Each of these presentations is managed surgically, following which there