

### boards fodder

## Cutaneous squamous cell carcinoma staging, risk classification, and management

By Hope Barone, DO

Head & neck AJCC 8 staging		
Primary tumor (T)	Size	Features
<b>Tx</b>	Primary tumor cannot be assessed	
<b>Tis</b>	Carcinoma <i>in situ</i>	
<b>T1</b>	≤2 cm	
<b>T2</b>	>2 - ≤4 cm	
<b>T3</b>	>4 cm or; minor bone erosion, perineural involvement, or deep invasion	
<b>T4</b>	Not specified	Gross cortical bone/marrow (T4a) or skull base invasion (T4b)
Regional lymph nodes (N)**	Number and size of regional nodes	Special considerations
<b>Nx</b>	Regional nodes cannot be assessed	
<b>N0</b>	None	
<b>N1</b>	1 ipsilateral; ≤3 cm and ENE (-)	
<b>N2</b>	1 ipsilateral; >3 - <6cm (N2a)	All ENE (-) except pathological (pN) N2a: 1 ipsilateral node ≤ 3 cm and ENE (+)*
	Multiple ipsilateral; <6cm (N2b)	
	Bilateral or contralateral; <6 cm (N2c)	
<b>N3</b>	Any node >6cm and ENE (-)	
	Any node and ENE (+)	
Distant metastasis		
<b>M0</b>	None	
<b>M1</b>	Present	

\*ENE: extranodal extension, synonymous with extracapsular extension (ECE)

\*pN: Pathological N categorization

\*\* Clinical and Pathological N categorization criteria are overlapping and therefore combined for simplification, with exceptions noted under special considerations.

BWH SCC staging	
Primary tumor (T)	Criteria
T1	0 High-risk factors
T2a	1 High-risk factor
T2b	2-3 High-risk factors
T3	≥4 High-risk factors or bone invasion

BWH high-risk factors	
Tumor diameter ≥2 cm	
Poorly differentiated histology	
Perineural invasion ≥0.1 mm	
Tumor invasion beyond subcutaneous fat (excluding bone invasion, which automatically upstages tumor to T3)	



### Hope Barone DO, MPH,

is a PGY-5 cutaneous oncology fellow in the department of dermatology at Beth Israel Deaconess Medical Center/Harvard Medical School.

## Cutaneous squamous cell carcinoma staging, risk classification, and management

By Hope Barone, DO

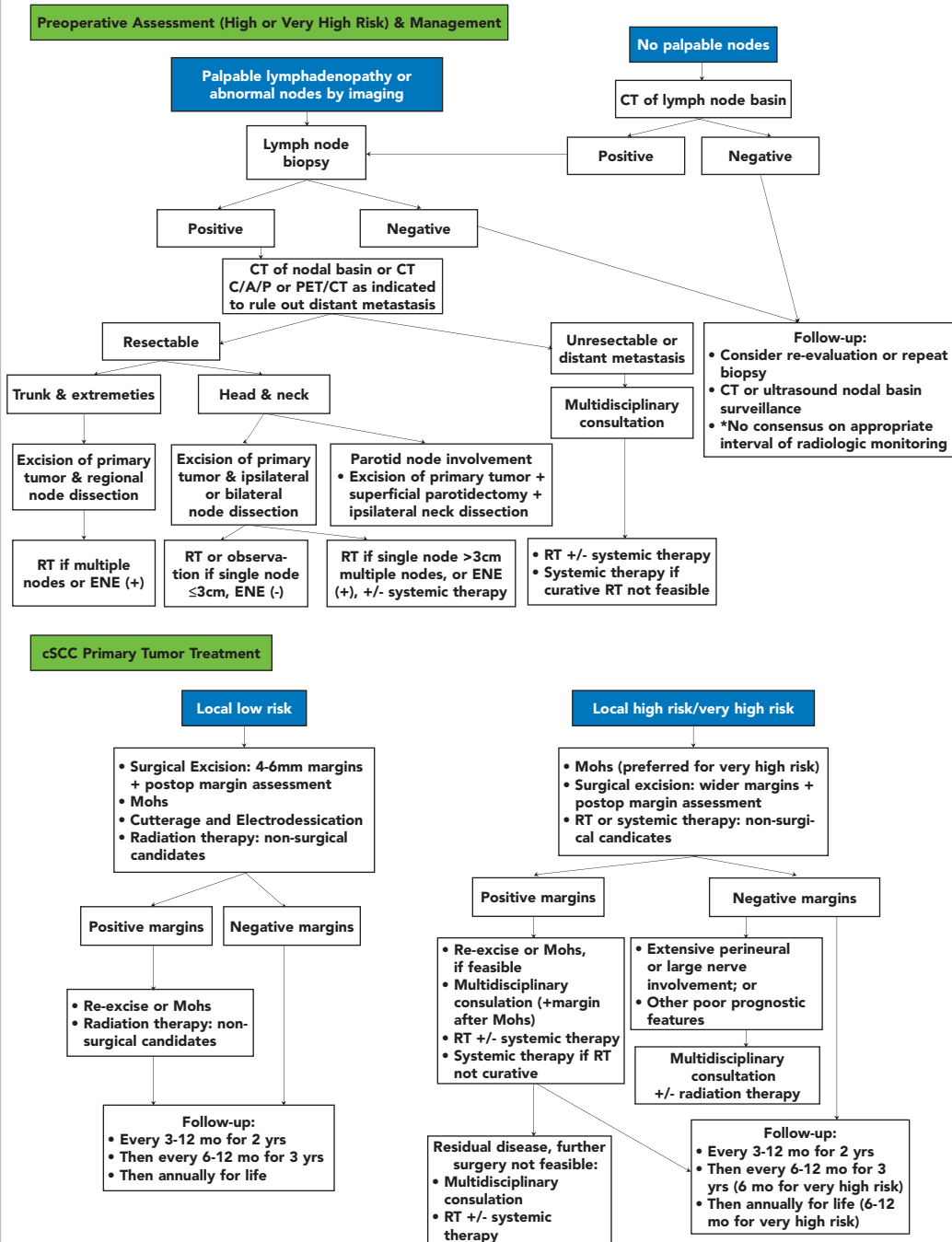
NCCN risk stratification			
Risk group	Low risk	High risk	Very high risk
<b>Clinical features</b>			
<b>Location &amp; tumor size</b>	Trunk or extremities and $\leq 2$ cm	Trunk or extremities and $>2 - \leq 4$ cm; Any size: head and neck, hands, feet, pretibia, anogenital	$>4$ cm; any location
<b>Borders</b>	Well-defined	Poorly defined	
<b>Primary or recurrent</b>	Primary	Recurrent	
<b>Other:</b>		<ul style="list-style-type: none"> <li>Immunosuppression</li> <li>Site of prior RT or chronic inflammation</li> <li>Rapidly growing</li> <li>Neurologic symptoms</li> </ul>	
<b>Pathology</b>			
<b>Degree of differentiation</b>	Well or moderately differentiated		Poor differentiation
<b>Depth</b>	$\leq 6$ mm; no invasion beyond subcutaneous fat		Deep: $>6$ mm from granular layer or invasion beyond subcutaneous fat
<b>Perineural involvement</b>	None	Present	Present
<b>Histologic features:</b> Acantholytic, adenosquamous (mucin production), or metaplastic (carcinosarcomatous) subtypes	None	Present	Desmoplastic SCC
<b>Other</b>			Lymphatic or vascular involvement

### Quick tips: Definitions and risk category determination

- Highest risk factor present determines risk category.
- The high-risk group has elevated risk of local recurrence; the very high-risk group has elevated risk of local recurrence and metastasis.
- Location on the head, neck, hands, feet, pretibial, or anogenital area are high-risk based on location, independent of size.
- Deep invasion for NCCN, AJCC8 and BWH is considered invasion beyond subcutaneous fat or greater than 6mm (from granular layer)
- Perineural invasion: Tumor cells within the nerve sheath of a nerve deeper than the dermis or measuring  $\geq 0.1$  mm

# Cutaneous squamous cell carcinoma staging, risk classification, and management

By Hope Barone, DO



**References:**

- Schmults C et al. NCCN Guidelines: squamous cell skin cancer, version 2.2022: National Comprehensive Cancer Network. 2022.
- Amin MB, Edge S, Greene F, Byrd DR, Brookland RK, Washington MK, Gershenwald JE, Compton CC, Hess KR, et al. (Eds.). AJCC Cancer Staging Manual (8th edition). Springer International Publishing: American Joint Commission on Cancer. 2017.
- Ruiz E et al. Performance of the American Joint Committee on cancer staging manual, vs the brigham and women’s hospital tumor classification system for cutaneous squamous cell carcinoma. *JAMA dermatology*. 2019;155(7):819-25.
- Que SK, Zwald FO, Schmults CD. Cutaneous squamous cell carcinoma: management of advanced and high-stage tumors. *J Am Acad Dermatol*. 2018;78(2):249-61.
- Krausz AE, Ji-Xu A, Smile T, et al. A Systematic Review of Primary, Adjuvant, and Salvage Radiation Therapy for Cutaneous Squamous Cell Carcinoma. *Dermatol Surg*. 2021;47:587-592.