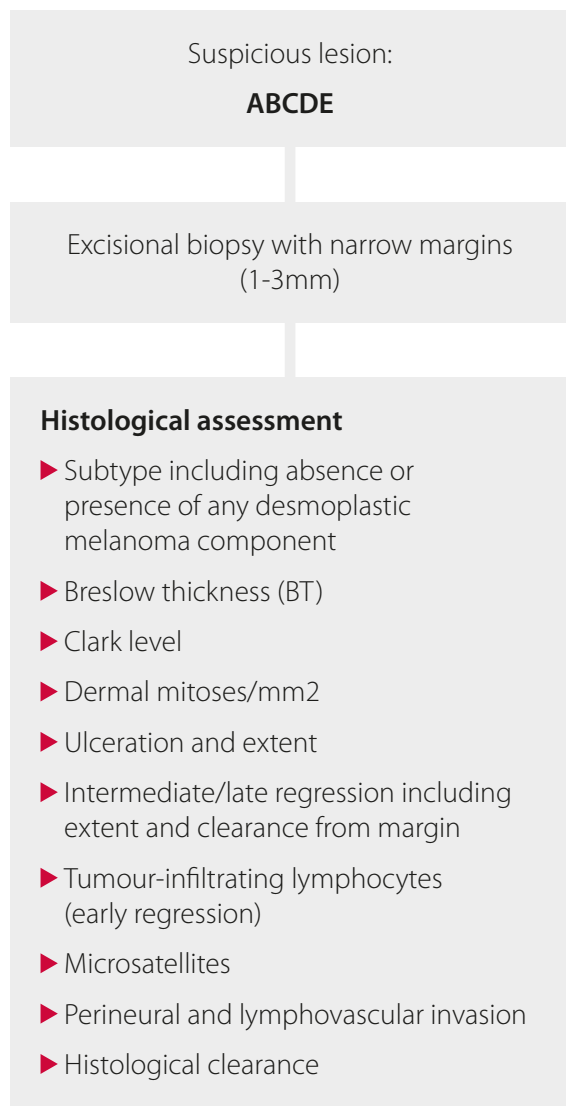


Cutaneous Malignant Melanoma Management Algorithm

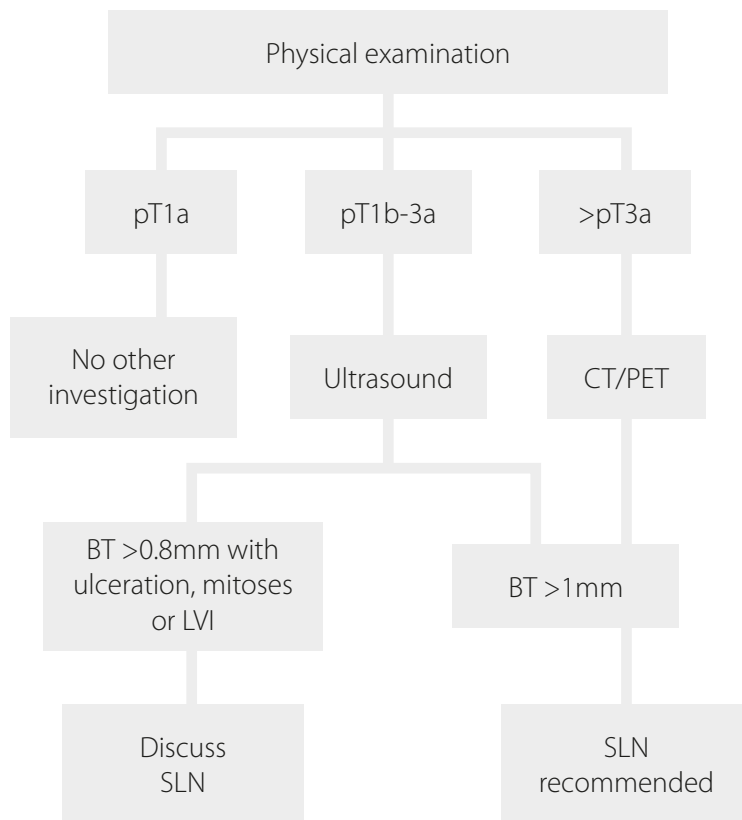
Adapted from Australian Cancer Network (ACN) Melanoma Guidelines 2008 (currently under revision) and European Society for Medical Oncology (ESMO) updated guidelines 2016.

DIAGNOSIS



STAGING

(See overleaf for AJCC staging)



FORMAL SURGICAL EXCISION MARGINS

(cumulative margin measured clinically from the edge of the lesion, as per current ACN guidelines)

pTis/melanoma in situ:	5 - 10mm*
pT1/ BT < 1.0mm:	10mm
pT2/ BT 1.0-2.0mm**:	10-20mm
pT3/ BT 2.0-4.0mm**:	10-20mm
pT4/ BT > 4.0mm:	20mm

*Adapt according to subtype and histological margin status on excision biopsy. Lentigo maligna and lentiginous subtypes have a propensity to extend beyond the clinically detectable boundaries.

**The evidence for optimal margins for melanomas 2 to 4mm thick is unclear and the margins used should be selected based on site and surgeon/patient preference. In some sites, margins greater than 10mm may not be possible.

AJCC Melanoma of the Skin Staging 8th Edition - Definitions

Primary Tumour (T)

TX	Primary tumour cannot be assessed (e.g. diagnosis by curettage)
T0	No evidence of primary tumour
Tis	Melanoma in situ
T1	Melanomas 1.0mm or less in thickness
T2	Melanomas 1.1 – 2.0mm
T3	Melanomas 2.1 – 4.0 mm
T4	Melanomas more than 4.0mm

NOTE: a and b subcategories of T are assigned based ulceration and thickness as shown below:

T Classification	Thickness (mm)	Ulceration Status
T1	≤1.0	a: Breslow <0.8mm w/o ulceration b: Breslow 0.8 – 1.0mm w/o ulceration or ≤1.0mm w/ ulceration
T2	1.01-2.0	a: w/o ulceration b: w/ ulceration
T3	2.1 – 4.0	
T4	>4.0	

Regional Lymph Nodes (N)

NX	Patients in whom the regional nodes cannot be assessed (for example, previously removed for another reason)
N0	No regional metastases detected
N1-3	Based on number of clinically detectable/occult ¹ involved nodes and the presence/absence of NLM ²

NOTE: N1-3 and a-c subcategories assigned as shown below:

N Classification	No of Nodes	Clinical detectability/ NLM status
N1	1 or 0 with NLM	a: 1 clinically occult, no NLM b: 1 clinically occult, no NLM c: No nodal disease but NLM present
N2	2 – 3 or 1 with NLM	a: 2-3 clinically occult nodes, no NLM b: 2-3 nodes, at least 1 clinically detected, no NLM c: 1 node, clinically detected or occult, NLM present
N3	>3 or >1 with NLM	a: >3 nodes, all clinically occult, no NLM b: >3 nodes, ≥1 clinically detected, or any number of matted nodes, no NLM c: >1 node, clinically detected or occult, NLM present

Distant Metastasis (M)

M0	No evidence of distant metastasis
M1a	Metastases to skin, soft tissue (including muscle) &/or non-regional nodes
M1b	Metastases to lung
M1c	Metastases to all other (non-CNS) visceral sites
M1d	Metastases to CNS

NOTE: Serum LDH is incorporated into the M category as below:

M Classification	Serum LDH
M1a-d	Not assessed
M1a-d(0)	Normal
M1a-d(1)	Elevated

Anatomic Stage/Prognostic Groups

Clinical Staging ³				Pathologic Staging ⁴			
Stage	Tis	N0	M0	0	Tis	N0	M0
Stage 0	Tis	N0	M0	0	Tis	N0	M0
Stage IA	T1a	N0	M0	IA	T1a	N0	M0
Stage IB	T1b	N0	M0	IB	T1b	N0	M0
	T2a	N0	M0		T2a	N0	M0
Stage IIA	T2b	N0	M0	IIA	T2b	N0	M0
	T3a	N0	M0		T3a	N0	M0
Stage IIB	T3b	N0	M0	IIB	T3b	N0	M0
	T4a	N0	M0		T4a	N0	M0
Stage IIC	T4b	N0	M0	IIC	T4b	N0	M0
Stage III	Any T	≥N1	M0	IIIA	T1-2a	N1a	M0
					T1-2a	N2a	M0
				IIIB	T0	N1b-c	M0
					T1-2a	N1b-c	M0
					T1-2a	N2b	M0
					T2b-3a	N1a-2b	M0
				IIIC	T0	N2b-c	M0
					T0	N3b-c	M0
					T1a-3a	N2c-3c	M0
					T3b-4a	Any N	M0
	T4b	N1a-2c	M0				
	T4b	N3a-c	M0				
Stage IV	Any T	Any N	M1	IV	Any T	Any N	M1

1: Nodes are designated as 'clinically detectable' if they can be palpated on physical exam and metastatic melanoma is confirmed on biopsy/excision. Clinically occult nodes are detected only on SLN biopsy.

2: NLM = non-nodal locoregional metastasis.

3: Clinical staging includes micro staging of the primary melanoma and clinical/radiologic evaluation for metastases. By convention it should be used after complete excision of the primary melanoma with clinical assessment for regional and distant metastases.

4: Pathologic staging includes micro staging of the primary melanoma and pathologic information about the regional lymph nodes after partial or complete lymphadenectomy. Pathologic Stage 0 and 1 patients are the exceptions; they do not necessarily require pathologic evaluation of their lymph nodes. Physicians should 'discuss and consider' SLNB for patients with T1b Stage IA and Stage IB disease.