Version: 01/25

Protocol Posting Date: June 2025

	IC No:

REPORTING PROFORMA FOR CUTANEOUS MALIGNANT MELANOMA

Specimen container labeled as:

1.0 MACROSCOPIC DESCRIPTION

1.1. Type of specimen:

-Biopsy/ Excision / Not stated

1.2. Specimen orientation: (Per information received from the clinician on orientation of specimen by marking sutures, clips or other techniques)

-Specify, if known

-Not specified

1.3. Measurement of tumour/lesion:

- Dimensions of specimen: …. mm (3 dimension)

- Maximum diameter of lesion: …. mm/ Uncertain/ No lesion seen

1.4. Ulceration:

-Absent/ Present: …. Mm

1.5. Gross description: (asymmetry/border irregular/colour variable/surface crusting)

1.6. Surgical margins:

-Untagged specimen:

Distance from radial margin: …..mm

Distance from deep margin: …..mm

-Tagged specimen:

Distance from margins: (please specify margin)

1.7. Macroscopic satellite lesions (Applicable to invasive tumours only):

-Not identified/Present/Indeterminate

1.8. Other lesion/ macroscopic findings: ……..

2.0 Lymph node:

- Submitted, specify site(s): ……

- Not submitted

3.0. Block summary:

Specimen is bisected/serially sliced and entirely submitted/submitted as follows:

(surgical margin/s is/are painted….)

4.0 MICROSCOPY:

A) NO INVASION/ IN-SITU MELANOMA

4.1. Histology type:

-(Lentigo maligna/ Superficial Spreading/ Acral lentiginous)

-Not otherwise specified

-Other (specify):

4.2. Dermal regression:

-Not identified/ present/ Uncertain/ Cannot be assessed – *Refer Note 2*

4.3. Margins:

-Radial margin: Involved/ Not involved but <1mm/ Not involved but >1mm: …mm/ Uncertain/ Not applicable.

-Deep Margin: Involved/ Not involved but <1mm/ Not involved but >1mm:…mm/ Uncertain/ Not applicable.

B) INVASION PRESENT/ INVASIVE MELANOMA:

4.1. Histology type:

- (Lentigo maligna melanoma/ Superficial spreading melanoma/ Acral lentiginous melanoma/ Nodular melanoma/ Desmoplastic melanoma)
- Not otherwise specified: …….
- Other (specify): ……

4.2. Cell type:

-Epithelioid/ Spindled/ Small/ Nevoid/ Mixed, specify …..

-Others, specify:….

4.3. Precursor lesion (Melanoma in-situ) : Present/ Absent

4.4. Ulceration: Absent/ present (maximum diameter:…..)

4.5. Clark level:

- Confined to epidermis (Level 1)

-Infiltrates but does not fill papillary dermis (Level 2)

-Fills/expands papillary dermis (Level 3)

-Infiltrates into reticular dermis (Level 4)

-Infiltrates into subcutaneous fat (Level 5)

4.6. Breslow thickness (depth): …. mm. *Refer note 1*

4.7. Mitotic Index (VGP): ….. per mm^2

4.8. Lymphovascular Invasion: Absent/ present

4.9. Satellite/ Microsatellite/ in-transit metastasis:

-Absent/present/Uncertain/ Cannot be assessed- *Refer Note 3*

-Margins involved by microsatellite: Absent/ Present/ Cannot be assessed

4.10. Distant Tumor from Margin:

-Untagged specimen:

Distance from radial margin: …..mm

Distance from deep margin: …..mm

-Tagged specimen

Distance from medial/inferior/lateral/superior/deep margin: …..mm

4.11. Neurotropic/perineural invasion: Absent/ present- *Refer Note 4*

4.12. Growth phase: *Refer Note 5*

- Radial Growth Phase (RGP)/ Vertical Growth Phase (VGP)/ Uncertain

4.13. Tumour Infiltrating Lymphocytes (for VGP): *Refer Note 6*

- Absent/ Non-brisk/ Brisk

4.14. Regression: Present/Absent - *Refer Note 2*

4.15. Desmoplastic melanoma component:

- Absent
- Present:
  - Pure (>90% desmoplastic melanoma)
  - Mixed desmoplastic/non-desmoplastic melanoma

4.16. Association with co-existent benign melanocytic lesion: Yes/ No/Uncertain

4.17. Ancillary test: Not performed/ performed; please specify……

5.0. LYMPH NODES STATUS

(Required only if lymph nodes submitted)

Sentinel Lymph node

Number of lymph node examined: ……..

Number of positive sentinel nodes: ……..

(i.e., clinically occult)

Number cannot be determined: …….

Extranodal extension:

- Not identified
- Present
- Indeterminate

Maximum dimension of largest metastasis in sentinel node: …….. mm

Location of largest sentinel node metastasesa:

- Subcapsular
- Intraparenchymal
- Both subcapsular and intraparenchymal

Non-sentinel lymph nodes

Number of lymph node examined: ……..

Number of positive sentinel nodes: ……..

(i.e., clinically occult)

Number cannot be determined: …….

Extranodal extension:

- Not identified
- Present
- Indeterminate

Maximum dimension of largest metastasis in sentinel node: …….. mm

6.0. STAGING:

PATHOLOGICAL STAGING (UICC TNM 8th edition)

*pT…… *pN …… *pM…

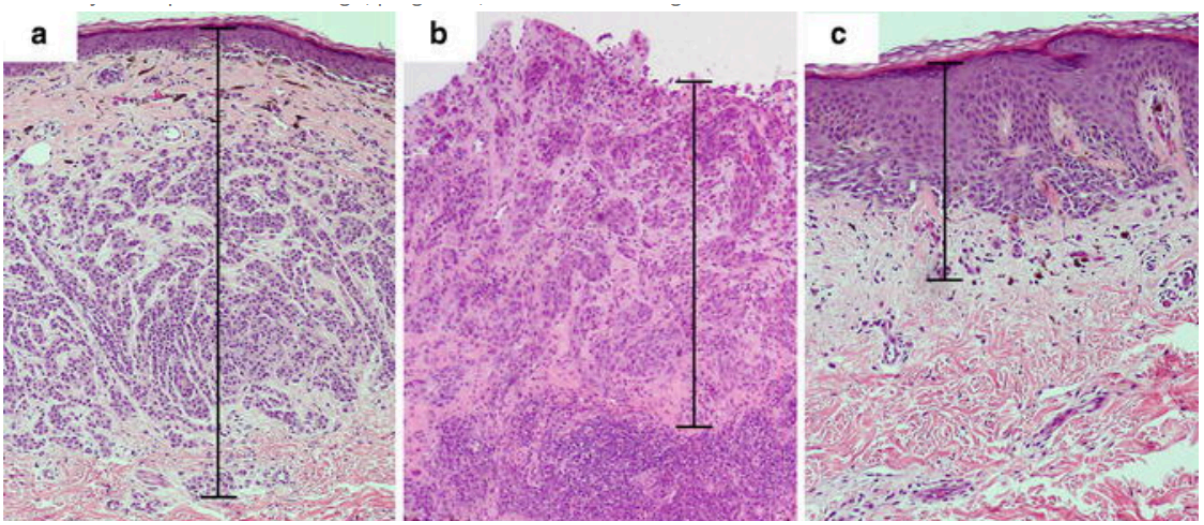
7.0. DIAGNOSTIC SUMMARY:

Histology type, staging, margins.

8.0. ADDITIONAL COMMENT:

GUIDE IN REPORTING CUTANEOUS MALIGNANT MELANOMA

NOTE 1: BRESLOW THICKNESS



A- intact epidermis; granular layer as upper margin of measurement
B- with ulceration; base of ulcer as upper margin
C- with hyperplastic epidermis- to put a comment

Thickness should be measured from the top of the granular layer.

When ulceration present and without any remaining epidermis, from the ulcer base to the deepest extent of invasion by a tumour cell or cells.

Deep extension along periappendageal sheaths, Microsatellites and vascular invasion should not be included in the measurement

Dermal regression extending to a greater thickness than the melanoma should not be included in the measurement of Breslow thickness

NOTE 2: REGRESSION

If present, regression can be recognised by a combination of features:

- the variable destruction of melanoma cells with either a partial or nearly complete absence of tumour cells within the dermis
- a variable lymphohistiocytic infiltrate
- fibrosis
- increase in dermal blood vessels
- melanin-laden melanophages.

NOTE 3: SATELLITE/MICROSATELLITE/IN-TRANSIT METASTASES

Satellite/microsatellite/in-transit metastases are a principal pN category parameter in TNM 8 (N1c, N2c, N3c).

Satellite metastasis (AJCC)- metastatic nodule that is visible grossly in the skin or deeper tissue.

A microsatellite metastasis- metastatic nest that visible only microscopically.

Both satellites and microsatellites are defined as being present within 20 mm of the primary cutaneous melanoma.

Microsatellites were defined as nest of metastatic tumour cells discontinuous from the primary tumour (but not separated only by fibrosis or inflammation).

An in-transit metastasis- positioned more than 20 mm from the primary melanoma.

The presence of satellites, microsatellites and in-transit metastases are associated with increased locoregional recurrence, a decreased disease-free survival rate and decreased overall survival. The presence of a melanoma satellite metastasis at a peripheral excision margin is usually an indication for re-excision,

NOTE 4: NEUTROPISM

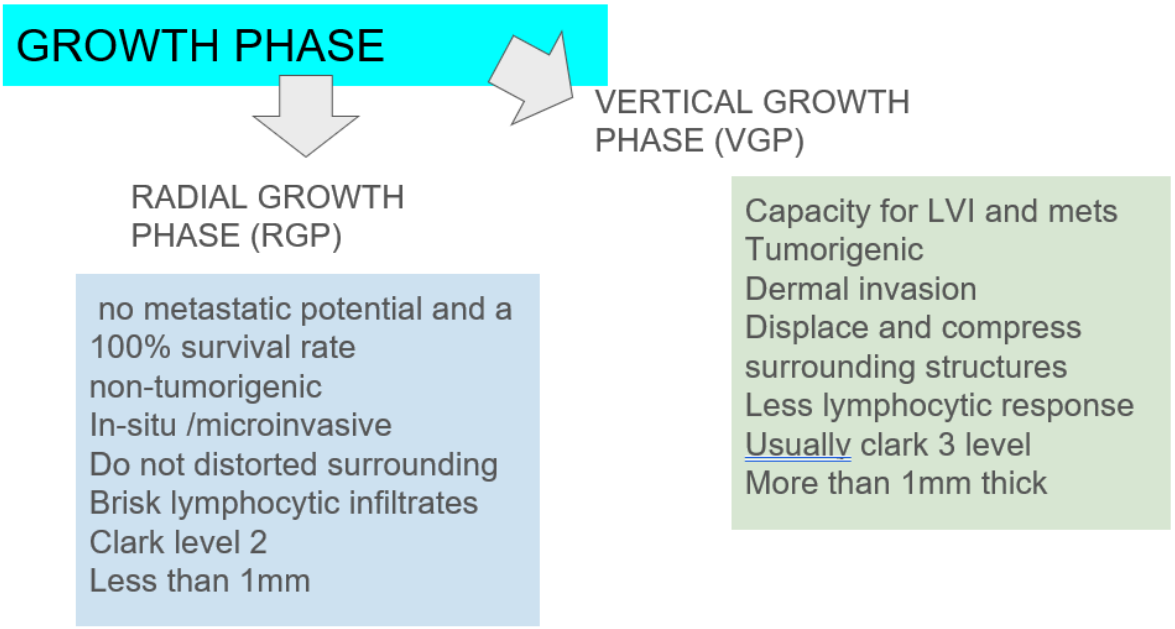
Neutropism is identified by the presence of melanoma cells around nerve sheaths (perineural invasion) or within nerves (intraneural invasion)

Correlates with a higher recurrence rate. This is particularly common in desmoplastic malignant melanoma (so-called desmoplastic neurotropic melanoma) and may require wider excision margins. Adjuvant radiotherapy reduced the risk of recurrence if adequate surgical margins could not be achieved

The presence of tumour cells around nerves in the main mass of tumour caused by entrapment of nerves in the expanding tumour is not neural invasion.

Previously biopsied areas, most likely representing reactive/reparative proliferation of traumatised eccrine sweat gland ducts in a plane of lower resistance. Immunohistology can be used to make the distinction.

NOTE 5: GROWTH PHASE



Radial growth phase:

This phase includes Intraepidermal component (in-situ) and microinvasion into papillary dermis (microinvasive RGP). Often accompanied by features of regression. The microinvasive stage of melanoma is believed to lack significant metastatic potential and as a consequence is associated with an excellent prognosis.

Histologically, the microinvasive RGP tumor is characterized by:

- Single cells or small aggregates of melanoma cells
- Histologically similar to their intraepidermal counterparts
- Invariably forming tumor nests smaller than those present within the overlying epidermis.
- Lymphohistiocytic infiltrates is usually present.
- Mitotic figures are absent by definition

Vertical growth phase (VGP):

VGP is composed of cohesive nests, nodules or plaques larger than those present within the epidermis, consisting of tumour cells that are usually cytologically different from those in the RGP. Mitotic figures are common. Features of regression may be seen but are usually absent at the base of the tumour. Tumour cells in the VGP are pleomorphic and apoptotic is often present. VGP implies an alteration in biological potential with a capacity for lymphovascular invasion and metastatic spread.

NOTE 6: TUMOUR INFILTRATING LYMPHOCYTES

A specific host immune response and could be regarded as the early sign of attempted regression. By definition, TILs must infiltrate the tumour and either disrupt or be apposed to the tumour cells. There is evidence that a paucity of TILs is an adverse survival factor and a brisk infiltrate a favourable prognostic factor. Some evidence has suggested that an absence of TILs maybe a predictor of a positive SLNB.

TIL should be reported as:

absent – no lymphocytes within the tumour (peritumoral lymphocytes with no intratumoral extension is also called absent).

non-brisk – focal/patchy/discontinuous lymphocytes among the tumour cells

brisk – continuous infiltration among the entire peripheral element of the tumour or diffuse permeation within the tumour.

NOTE 7: PATHOLOGICAL STAGING

TNM classification of cutaneous malignant melanomas (UICC TNM 8)

Includes: eyelid

penis and scrotum

perianal skin (hair-bearing beyond 5 cm of anal margin)

vulva

external ear

lip (hair-bearing skin)

Excludes: mucosal melanoma of head and neck

mucosal melanoma of urethra, vagina, rectum and anus

conjunctival and uveal melanoma

Primary tumour (pT)

pTX Primary tumour cannot be assessed (e.g. curettaged or severely regressed melanoma)

pT0 No evidence of primary tumour (e.g. unknown primary or completely regressed melanoma)

pTis Melanoma in situ

pT1 Melanomas ≤1.0 mm in thickness

pT2 Melanomas >1.0–2.0 mm

pT3 Melanomas >2.0–4.0 mm

pT4 Melanomas >4.0 mm

A and B subcategories/subdivisions of pT are assigned based on thickness (pT1) and ulceration as shown below:

pT classification	Thickness (mm)	Ulceration status
T1	≤1.0	
– T1a	<0.8	a: without ulceration
– T1b	0.8–1.0	b: without ulceration
– T1b	≤1.0	b: with ulceration
T2	>1.0–2.0	a: without ulceration b: with ulceration
T3	>2.0–4.0	a: without ulceration b: with ulceration
T4	>4.0	a: without ulceration b: with ulceration

Regional lymph nodes (pN)

Isolated tumour cells are designated pN1.

pNX Patients in whom the regional nodes cannot be assessed (e.g. previously removed for another reason)

pN0 No regional metastases detected

pN1–3 Regional nodal metastasis* based upon the number of metastatic nodes and presence or absence of regional intralymphatic metastases (in-transit or satellite and/or microsatellite metastases).** The regional metastases can be clinically occult/microscopic (including SLNB)*** or clinically detected/macroscopic.****

N1–3 a–c subcategories are assigned as shown below:

pN classification	**Regional node**	**Intralymphatic metastasis**
pN1: 1 regional involved node or regional intralymphatic metastasis with no regional involved node		
– N1a	1 clinically occult	No
– N1b	1 clinically detected	No
– N1c	No involved node	Yes
pN2: 2 or 3 regional involved nodes or regional intralymphatic metastasis with 1 regional involved node		
– N2a	2 or 3 clinically occult	No
– N2b	2 or 3 clinically detected	No
– N2c	1 clinically occult or clinically detected node	Yes
pN3: 4 or more regional involved nodes or any number of matted nodes or regional intralymphatic metastasis with 2 or more involved nodes		
– N3a	≥4 clinically occult	No
– N3b	≥4 clinically detected or any matted nodes	No
– N3c	≥2 clinically occult or ≥2 clinically detected	Yes

*Definition of regional node metastasis (cf distant metastasis): disease confined to one or more draining nodal basin(s). Those on the head and neck or trunk may have three or more regional basins. The total number of involved nodes for pathological staging is the total of positive sentinel and non-sentinel node, identified after completion lymphadenectomy.

**Satellites are tumour cells (macro- or micro-) with 2 cm of the primary tumour. In-transit metastasis involves skin or subcutaneous tissue more than 2 cm from the primary tumour but not beyond the regional lymph nodes.

***Micrometastases are diagnosed after sentinel lymph node biopsy or completion lymphadenectomy (if performed). They occur in the setting of no clinical abnormality i.e. clinically occult.

****Macrometastases are defined as clinically detectable nodal metastases confirmed by therapeutic lymphadenectomy or when nodal metastases exhibits matting. They occur in the setting of a clinical abnormality.

Distant metastasis (M)

M0	No distant metastasis	
M1	Distant metastasis	
	M1a	Metastasis to skin, soft tissue including muscle, or lymph nodes beyond the regional drainage
	M1b	Metastasis to lung
	M1c	Non-central nervous system (CNS) visceral sites
	M1d	Central nervous system (CNS)

Serum lactate dehydrogenase (LDH) is incorporated into the M category as a suffix:

(0) LDH Not elevated

(1) LDH Elevated

e.g. M1a (1) equals M1a with LDH elevated. No suffix is used if LDH is not recorded.

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