Suspected Melanoma

This pathway is for adults with pigmented skin lesions that are suspicious of melanoma. See also the Skin Lesion Excision, Established Malignant Melanoma, and Melanoma Referral Pathways.

Disclaimer

Contents

About melanoma

- Cutaneous melanoma is increasingly common. It is the fourth most common cancer in Australia, with 7% of males and 4% of females likely to develop melanomas in their lifetime, and > 1200 deaths per year from the disease.[1]
- Prognosis varies from very favourable to poor depending on staging.
- The burden on the healthcare system from referral to dermatologists and plastic surgeons for non-malignant and non-melanoma skin lesions is considerable. Many of these

conditions can be managed in general practice, especially with increasing technological support such as dermoscopy and serial photography by doctor or patient.
- Targeted therapy and immunotherapy are transforming the prognosis for an increasing number of melanoma subtypes based on surface markers.

Assessment

1. Take a history. Ask about:
- The presence of any factors that predispose to melanoma

Factors that predispose to melanomas

Patient factors:

- High past sun exposure (especially in childhood), including sunburn and sun damaged skin
- Past melanomas especially at an early age, or multiple primary melanomas (melanoma is uncommon under the age of 12 years but can occur)
- Personal history of non-melanoma skin cancers
- Immunosuppression – especially organ transplant recipients, lymphoproliferative disease, radiation exposed patients, and HIV/AIDS
- Multiple benign (> 100) and/or > 5 atypical naevi

Atypical naevi

An atypical naevus is a mole with ≥ 3 of:
- Size > 5 mm diameter
- Ill-defined or blurred borders
- Irregular margin resulting in unusual shape
- Varying shades of colour – mostly pink, tan, brown, black
- Flat and bumpy components
- Erythema

See DermNet NZ – Atypical Melanocytic Naevus

- Congenital naevi confer a slightly increased risk
- Any large dysplastic naevus (> 20 cm, which are rare) warrants referral

Family history:

- Melanoma – melanoma risk approximately doubles with each first-degree relative. Family history of 3 or more family members may warrant genetic testing.
- Familial atypical naevi
- Certain associated cancers. See also Cancer Council Victoria – Familial Melanoma.
- suspicious or changing moles

Suspicious or changing moles

- Ask about:
- new moles
- changes in lesions or moles e.g. size, shape, colour or pattern, any irritation, itch, or bleeding
- moles that differ from the typical mole appearance for that patient e.g. ugly duckling sign

        - nodules that have grown progressively for more than a month, especially if they are elevated and firm (Elevated, Firm, and Growing)
- other factors including immunosuppression and family history
- patient concerns, including anxiety about cosmetic impact of excision

2. Examine all patients with identified increased risk of melanoma:

- Perform total body cutaneous examination, optimally including dermoscopy of suspicious lesions.

Examination

Under good light:

  - Ask the patient to remove everything except brief underwear, and examine all lesions.
  - Look under straps and at concealed areas, including palms and soles.
  - Carefully examine the scalp.
  - Examine for enlarged lymph nodes in drainage fields.

- Compare observed lesions with any digital images taken by the patient.
- Note any atypical naevi

3. Evaluate each lesion carefully using validated clinical criteria. The majority of melanomas will be superficial spreading melanoma and lentigo maligna melanoma.

Lentigo maligna melanoma

  - In situ forms are often referred to as lentigo maligna, or Hutchinson melanotic freckle. These commonly occur in any of:
    - patients with fair or easily tanned skin.
    - sun damaged areas such as the cheek, nose, or neck.
    - males more often than females.
    - patients aged > 40 years.
  - Up to 10% will become invasive, which may occur after a long in situ phase.
  - Invasion may be accompanied by itch, increasing pigment, ulceration, or bleeding.
  - Excisional biopsy is optimal.
  - If the lesion is large, or in the face, partial or multiple biopsy of suspicious areas may be more practical and will provide diagnostic information without obscuring lesion margins. See Management.

See Dermnet NZ – Lentigo Maligna and Lentigo Maligna Melanoma.

Superficial spreading melanoma

  - Superficial spreading melanoma accounts for two thirds of melanomas in Australia and New Zealand.
  - Usually on fair skinned people.
  - It usually presents as a slowly growing or changing flat patch of pigment.

See DermNet NZ – Dermoscopy of Malignant Melanoma for diagnosis criteria.

Clinical criteria to evaluate probability of melanoma

- Assess for the ugly duckling sign, where a pigmented lesion differs from the patient's typical moles.
- Evaluate lesions using the ABCDE of melanoma

A	Asymmetry of structure (macroscopic or dermoscopic) or of shape.
B	Border irregularity
C	Colour variation. Note: pigmentation may not be present in some melanomas i.e., nodular or amelanotic melanoma.
D	Diameter > 6 mm. However, melanoma can be diagnosed when less than this diameter.
E	Evolution and/or elevation e.g., lesions may enlarge and a flat lesion may become raised in a matter of a few weeks.

- Evaluate using the **E**levated, **F**irm, and **G**rowing (EFG) rule. Melanomas occasionally present as a symmetric nodule that is elevated, firm, and growing progressively for > 1 month.
- Dermoscopy may help exclude melanoma and the need for excision. See DermNet NZ – Dermoscopy of Malignant Melanoma. If not equipped for dermoscopy, consider referring to a proficient peer or specialist.

General practitioner proficiency and skin lesions

- The aim of peer referral is to avoid specialist overload without compromising medical care.
- Dermatoscopy and clinical photography are examples of techniques where specialist referral can often be avoided.
- Most GPs will rely on specialist treatment for advanced excision techniques which require specific training e.g., skin flaps, curettage and cautery
- Advanced GP training is available through the RACGP Certificate of Primary Care Dermatology

Images of melanoma

DermNet NZ:

- Acral Lentiginous Melanoma Images
- Amelanotic Melanoma Images
- Lentigo Maligna Melanoma Images
- Metastatic Melanoma Images
- Nodular Melanoma Images

4. Consider the difficult to diagnose forms of melanoma:
   - Acral lentiginous melanoma – check the patient's palms, fingers, soles, toes, and nails.

Acral lentiginous melanoma

- Acral lentiginous melanoma is a type of melanoma arising on the palms, fingers, toes, soles, or nails constituting 1 to 3% of melanomas in Australia and New Zealand.

- Acral lentiginous melanoma is not sun-related.
- Initial appearance may look like a stain. Subungual appearance is irregular longitudinal bands.

See DermNet NZ – Acral Lentiginous Melanoma.

- If elevated firm and. growing consider nodular melanoma or amelanotic melanoma

Amelanotic melanoma

Often not recognised as melanoma because of the absence of one of the usual diagnostic criteria (pigmentation).

See DermNet NZ:

- Amelanotic melanoma
- Dermoscopy of Malignant Melanoma (scroll drown for Amelanotic melanoma)

Nodular melanoma

- Usually a firm, raised, uniformly coloured and frequently non-pigmented nodule that is enlarging and becoming more raised.
- It accounts for about 15% of melanomas but comprises more than 60% of melanomas > 3 mm in thickness.
- Excision biopsy is the preferred treatment of persistent, enlarging, or rapidly growing skin lesions whether pigmented, nodular, or not. This avoids missing these types of melanomas.

See DermNet NZ – Nodular Melanoma.

5. Assess the site for technical excision difficulty and patient's anxiety and expectation regarding cosmesis.

Management

Perform excision biopsy if suspicious
Perform excisional biopsy if suspicious of melanoma as malignancy is without exception a histological diagnosis. Partial biopsy is suboptimal.

1. Optimally, photograph any suspicious lesions before excision. If appropriate, advise patient self-photography or use of an app. Photography is an adjunct and not an alternative to histology.
2. Manage lesions without malignant features, or non-melanoma malignancies (e.g., basal cell carcinoma (BCC), squamous cell carcinoma (SCC)) as per the relevant pathway. Obtain histology by partial biopsy or excision biopsy and provide preventive patient education.

Patient education

It is important that the patient:

- avoids excessive sun exposure.
- understands skin surveillance and the value of photography by themselves and specialist services.
- has regular inspections to detect recurrence or new primary melanoma.

- understands the role of blood tests and imaging in melanoma, and the importance of regular follow-up.
- understands the importance of catching nodal metastases early to improve survival.

3. Explain the need for complete excision biopsy of all suspicious lesions with adequate clearance margins and depth for histological diagnosis, within expected timeframes.

Clearance margins[1]

Initial excision	
Suspected melanoma	2 mm
Benign lesions, dysplastic naevi	2 mm
BCC nodular	2 to 3 mm
BCC other	4 to 5 mm
SCC in situ (Bowen's disease)	2 mm
SCC	3 to 5 mm
Re-excision	
Melanoma in situ	5 mm
Lentigo maligna	5 to 10 mm (occasionally more)
Thin < 1 mm Breslow thickness[1]	10 mm with sentinel node biopsy if thickness > 0.75 mm
Intermediate 1 to 4 mm Breslow thickness[1]	10 to 20 mm with sentinel node biopsy
Thick > 4 mm Breslow thickness[1]	20 mm (occasionally more) with sentinel node biopsy
Histological margin for SCC or BCC < 1 mm	Discuss with specialist taking into account clinical and histological features of high risk BCC or SCC.

This table is a guide only. Recommended excision margins depend on many variables and involve weighing risks of wider excision with those of recurrence. Definitive evidence based recommendations remain elusive. Best practice relies on thorough deliberative evidence based consensus guidelines (still in review 2019). Updated guidelines will be made available as links in this table when released. Seek specialist advice if in doubt.

4. Obtain consent and ensure the patient is aware of the need for wider margins should melanoma be confirmed. Perform the initial excision as per Skin Lesion Excision pathway with a 2 mm margin, ensuring the lesion is central in the excision and poles are marked.

5. If excision biopsy raises outcome concerns, photograph or document the lesion and consider referral to a proficient peer or appropriate specialist, ideally within 2 weeks of diagnosis. Options include non-acute dermatology assessment, non-acute general surgery assessment, or non-acute plastic surgery assessment.

Outcome concerns

- Cannot achieve direct closure after excision with adequate clearance margins.
- Accral melanoma, large size, or difficult locations, e.g. face, lower limb.
- Patient has high anxiety or concern about cosmetic result.
- Multiple excisions are required.

6. If patient presents with any melanocytic naevi over 20 cm diameter, recommend non-acute dermatology assessment.

7. If genetic predisposition is suspected, consider referral to a Family Cancer Centre.

8. If histologically confirmed melanoma, manage as per Established Malignant Melanoma. The majority will be superficial spreading melanoma or lentigo maligna melanoma.

Referral

Click here for Melanoma referral Pathways

If referring for excisional biopsy and the lesion is not suspicious of melanoma, ensure partial biopsy has been performed with the result sent to the assisting specialist.

- Consider referral to a proficient peer if:
  - in doubt about the need for excision, especially if dermoscopy might prevent excision.
  - difficult excision can be performed by peer rather than a specialist.
  - patient preference is to avoid specialist treatment (especially if it incurs delays).
- Request assessment by a procedural dermatologist, plastic surgeon, or general surgeon within 2 weeks of diagnosis if:
  - concerned about achieving direct closure after excision with adequate clearance margins.
  - accral melanoma, large size, or difficult locations e.g., face, lower limb.
  - patient has high anxiety or concern about cosmetic result.
  - multiple excisions are required.
- If patient presents with any melanocytic naevi over 20 cm diameter, recommend non-acute dermatology assessment.
- If genetic predisposition is suspected, consider referral to a Family Cancer Centre.

Further information

For health professionals

- Australian Family Physician – Dermatoscopy in Routine Practice
- Cancer Council:
  - Optimal Cancer Care Pathway for People with Melanoma
- Optimal Cancer Care Pathway for People with Melanoma: Quick Reference Guide
- DermNet NZ – Dermoscopy of Malignant Melanoma
- RACGP:

- Dermatoscopy in Routine Practice
- Skin Checks

For patients

- Better Health Victoria – Melanoma
- Cancer Council – Sun Safety [includes links to skin cancers including melanoma]
- SunSmart – Consumer Guide to Skin Clinics

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