Excision and margins

- Excisions should have vertical edges to ensure consistent margins
- Depth of excision in usual clinical practice is excision down to but not including the deep fascia unless it is involved
- Excision biopsy of the complete lesion with a narrow (2mm) margin is appropriate for definitive diagnosis. Lesions excised with a margin less than recommended below should be re-excised as soon as practicable to achieve these margins.

Follow-up

Recommendation1
Follow-up intervals are preferably six-monthly for five years for patients with Stage I disease, three-monthly or four-monthly for five years for patients with Stage II or III disease, and yearly thereafter for all patients.

Genetic testing

Genetic testing is currently of no value outside the context of clinical research. Although some genes associated with melanomas have been detected in familial melanoma patients, the prevalence of these gene changes is too low to be of use in clinical management of people at high risk.

Risk factors

All factors contribute to an overall assessment of risk. Some factors confer a high risk (relative risk of 5-fold or greater) (see ‡):
- skin colour (light versus medium or dark skin)
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- a family history of melanoma in a first-degree relative (approx 2-fold increase in risk). This risk is higher if more than one relative had a melanoma, if they were young at the time or if one relative had more than one melanoma. Note: robust risk data for Australasia is not available

Advice and monitoring for those at risk

Promote self-examination to all patients

All patients and especially those at high risk should be encouraged to undertake regular self-examination using a mirror or involving a partner or carer. They should be advised to be suspicious of new or changing lesions on the skin.

Provide education and surveillance for people at high risk

People at high risk of melanoma and their partners should be educated to recognise lesions suspicious of melanoma. Regular surveillance is essential and may be supported by dermoscopy and total body photography. People at high risk should be managed in consultation with appropriate specialists.

Consider people with a history of melanoma as high risk

This group has at least a 5-fold increase in risk compared with the general population. Promote education and surveillance as for others at high risk.

Prognosis

The thickness of a melanoma is the strongest predictor of outcome. Other features that have been shown to influence prognosis are: ulceration, mitotic rate, gender, age and site.

Early diagnosis is the aim

Achievement of a high level of survival from melanoma largely depends on early diagnosis by the primary care clinician. Early diagnosis requires careful observation of the body skin surface, examination of suspicious lesions with good illumination, with dermoscopy if possible and awareness of the clinical appearance and risk factors for melanoma. Melanoma may be found opportunistically during clinical examination for other indications. In the absence of any substantial evidence as to its effectiveness in reducing mortality from melanoma, population-based skin screening cannot be recommended.

Presentation and patient reporting

About half of all melanomas are first identified by the person themselves. The individual is often in a better position to observe changes and symptoms of skin lesions than their doctor. If a person expresses concern about a particular lesion, reassurance should be given only when there is no doubt about the nature of the lesion. If there is any doubt, repeat observation after 1–2 months is essential.

Practice points

History

The history of a skin lesion is very important. A history of change in size, shape or colour is an important clue to the diagnosis of melanoma. Immediate referral is sometimes a symptom. Pain and/or bleeding are rare and may indicate an advanced or nodular melanoma.

Physical examination

Physical examination should assess the whole skin surface with high-quality illumination.
- Melanoma seldom resembles other pigmented skin lesions – it is an ‘ugly duckling’
- Not all melanomas are black. Variation in colour and multiple colours e.g., brown, tan, pink and areas of depigmentation are useful indicators of malignancy, they are frequently present

Suspicious lesions

Depending on the skill level of the GP, biopsy or referral should be considered for all suspicious lesions.

Observation of a lesion

A period of observation (preferably for 1–2 months, but for a maximum of 3 months) may be appropriate for clinically doubtful pigmented skin lesions. Photography of the lesion is recommended to be used as a baseline to observe/compare any changes if planning to observe for 3 months – warning patients not to wait, but to seek review if there are changes before the three month review. Another approach is to use a dermoscopy image capture device to detect change over this time.

Locally advanced melanoma

If a person presents with locally advanced melanoma referral should be made to a specialist surgeon without biopsy.

1 Grades of recommendation (NHMRC, 2005)

A Body of evidence can be trusted to guide practice
B Body of evidence can be trusted to guide practice in most situations
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D Body of evidence is weak and recommendation must be applied with caution

Adapted from ‘Melanoma: An Aide Memoire to Assist Diagnosis’ prepared by the Australian Cancer Network based on ‘Clinical Practice Guidelines for the Management of Melanoma in Australia and New Zealand’ (2008) pre-publication.
Melanoma is the fourth most common cancer diagnosed in New Zealand. General practitioners should be aware of the appearance and clinical types of melanoma.

Most melanomas (superficial spreading, lentigo maligna, and acral lentiginous melanoma) present with an initial flat phase and the features of these melanomas are summarised by the ABCDE method of clinical diagnosis.

**ABCDE of melanoma**

**A** Symmetry
- The most common melanoma in people with light skin.

**B** Border irregularity
- May occur as early as the teenage years.

**C** Colour variation (Note: black is not essential and may not be present in some melanomas, i.e., nodular or amelanotic melanomas)
- Found in non-hair bearing areas.

**D** Diameter greater than 6mm. However melanoma can be diagnosed when less than this diameter
- More common in people with darker skin.

**E** Evolution and/or elevation eg, lesions may enlarge and a flat lesion may become raised in a matter of a few weeks
- May occur as early as the teenage years.

The seven-point checklist is also suitable for use in clinical assessment but note the suggested revision to the diameter from >7mm to >6mm.

The bottom line is that practitioners should strongly consider excision for lesions that are unusual, new, changing or difficult to diagnose.

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**Biopsy**

**Histology** should be obtained for all biopsy material.

**Recommends**
- The optimal biopsy approach is complete excision with a 2mm margin and upper subcutis

**Grade**
- C

**Excision biopsy**
- A 2mm margin is required.

**Amelanotic melanoma**

Amelanotic melanoma is often not recognised as melanoma because of the absence of one of the usual diagnostic criteria (pigmentation). This diagnosis must be kept in mind for any persistent, enlarging or rapidly growing nodule on the skin and excision biopsy is the treatment of choice.

**Dermoscopy**

Dermoscopy represents a form of in vivo microscopy of the epidermis and upper dermis. The technique allows the melanocyte network and melanin pigment to be visualised. General practitioners are encouraged to learn this technique to facilitate accurate melanoma diagnosis, and those who decide to use it should participate in regular training to maintain adequate skills. Biopt rates can be reduced with appropriate training and experience.

The guideline states as a good practice point that it is advisable to review unexpected pathology results with the reporting pathologist.

**Breslow thickness**

This measurement in millimetres is the actual thickness of the melanoma which is a reflection of the depth of penetration of the tumour into the skin. Tumours less than 1mm thick are considered lower risk.

**Clark’s level (level of invasion)**

This refers to the deepest portion of the skin invaded by tumour. Clark levels are defined as follows:
- I Intraepidermal tumour only
- II Tumour invades into papillary dermis
- III Tumour invades into papillary dermis and expands it
- IV Tumour invades into reticular dermis
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Level of invasion is included in the current AJCC Clinical Staging for tumours 1mm or less in thickness only, but is usually included in the pathology report for all tumours.
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<thead>
<tr>
<th>Major features</th>
<th>Minor features</th>
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<tbody>
<tr>
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<td>Diameter &gt; 7mm* (&gt; 6mm)</td>
</tr>
<tr>
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</tr>
<tr>
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**Nodular melanoma**

Nodular melanoma is 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 > 3mm in thickness.

**Amelanotic melanoma**

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**Biopsy**

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**Recommendations**

<table>
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<td>The optimal biopsy approach is complete excision with a 2mm margin and upper subcutis</td>
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<td>Incisional, punch or shave biopsies may be appropriate in carefully selected clinical circumstances, for example, for large facial or acral lesions or where the suspicion of melanoma is low</td>
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- if the presence of many moles (50+)
- if atypical (dysplastic) naevi
- history of non-melanoma skin cancer or premalignant lesions such as actinic keratoses (approx 4-fold increase in risk).

The likelihood of developing melanoma is higher in those over 50 years. Māori and Pacific people have a much lower chance of developing melanoma but often have thicker melanomas.

Advisory Group

The New Zealand Guidelines Group would like to thank members of the advisory group who provided input during the development of this resource.

Copy of this resource and an information resource for the public ‘Melanoma: information for you, and your family, whānau and friends’ are available free from Vircurex 04 496 2277, Order No. HP. 4700 (GF), Order No. HP. 6499 (publis). Also available online at: www.nzgg.org.nz

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