

# **BIOPSY OF A SUSPICIOUS PIGMENTED LESION**

Date Developed: May, 2008

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The recommendations contained in this guideline are a consensus of the Alberta Cutaneous Tumour Team and are a synthesis of currently accepted approaches to management, derived from a review of relevant scientific literature. Clinicians applying these guidelines should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care.

## BACKGROUND

Biopsy used to diagnose and stage a suspicious lesion for the purposes of predicting prognosis and determining the best future management options.

## GUIDELINE GOALS AND OBJECTIVES

To develop a consensus based guideline for biopsy of a suspected lesion.

## GUIDELINE QUESTIONS

- What types of biopsy are appropriate for diagnosing a suspicious lesion in melanoma?
- What elements should be collected from the biopsy?

## DEVELOPMENT PANEL

This **guideline** was reviewed and endorsed by the Alberta Cutaneous Tumour Team. Members of the Alberta Cutaneous Tumour Team include medical oncologists, radiation oncologists, surgical oncologists, dermatologists, nurses, pathologists, and pharmacists. **Evidence** was selected and reviewed by a working group comprised of members from the Alberta Cutaneous Tumour Team and a Knowledge Management Specialist from the Guideline Utilization Resource Unit.

## SEARCH STRATEGY

The MEDLINE (1966 through April 2009), CINAHL, Cochrane, ASCO Abstracts and proceedings, and CANCELIT databases were searched. The search included practice guidelines, systematic reviews, meta-analyses, randomized controlled trials, and clinical trials. Search terms included: suspicious pigmented lesion, pigmented lesion, or lesion and malignant melanoma and biopsy.

## RECOMMENDATIONS

*Based on the National Comprehensive Cancer Network Melanoma Guidelines, 2009:*<sup>1</sup>

- Excisional biopsy (elliptical, punch, saucerization) is preferred for small lesions. For larger lesions or lesions in cosmetically sensitive area, a punch or small incisional biopsy is preferred. Avoid wider margins to permit accurate subsequent lymphatic mapping.
- Full thickness incisional or punch biopsy may be acceptable in large lesions or lesions in anatomically sensitive areas (e.g. palm/sole, digit, face, ear) or for very large lesions. Note: if clinical evaluation of incisional biopsy suggests that microstaging is inadequate, consider narrow margin excision.
- Where invasive melanoma is suspected, shave biopsy may compromise pathological diagnosis and complete assessment of Breslow Thickness.
- For lentigo maligna, melanoma in situ, a broad shave biopsy may help to optimize diagnostic sampling.

- Biopsy should be read by a pathologist experienced in pigmented lesions and should include the following elements:
  - Breslow thickness (mm)
  - Histologic ulceration
  - Clark level (optional for Breslow > 1mm)
  - Satellitosis, if present
  - Mitotic rate per mm<sup>2</sup>
  - Peripheral and deep margin status of biopsy
  - Location
  - Regression
  - Histologic sub-type
  - Tumor infiltrating lymphocytes (TIL)
  - Vertical growth phase (VGP)
  - Angiolymphatic invasion
  - Neurotropism

## DISCUSSION

When performing an excisional biopsy, a definitive treatment plan should be developed so that any possible future procedures (i.e. lymphatic mapping or sentinel node biopsy) are taken into account; in this regard, wider margins should be avoided. Furthermore, excisional biopsy may be inappropriate for certain sites, such as the face, palmar surface of the hand, sole of the foot, ear, etc. or for very large lesions; instead, a full-thickness incisional or punch biopsy may be most appropriate, rather than a shave biopsy, as they are accurate and do not interfere with local therapy. If the biopsy is unable to provide enough information to make a diagnosis or to accurately microstage the tumor, a repeat biopsy is recommended.<sup>1</sup>

## GLOSSARY OF ABBREVIATIONS

Acronym	Description
TIL	tumor infiltrating lymphocytes
VGP	vertical growth phase

## IMPLEMENTATION STRATEGY

- Present the guideline in the tumour team meetings and weekly rounds.
- Post the guideline on the Alberta Health Services website.

## EVALUATION STRATEGY

A formal review will be conducted in 2010, however if new evidence is brought forward before that time, the guideline will be changed accordingly.

## DECLARATION OF CONFLICT OF INTEREST

None of the authors of this guideline had any conflict of interest related to evidence or recommendations in this guideline.

## REFERENCES

<sup>1</sup> National Comprehensive Cancer Network. Melanoma Guidelines, 2009. URL:  
[http://www.nccn.org/professionals/physician\\_gls/PDF/melanoma.pdf](http://www.nccn.org/professionals/physician_gls/PDF/melanoma.pdf)