

REFERRAL AND FOLLOW-UP SURVEILLANCE OF CUTANEOUS MELANOMA

Date Developed: June, 2009

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

Early recognition of malignant melanoma presents the best opportunity for cure and accordingly patients with lesions suspicious of melanoma should be referred urgently to a specialist with an interest in pigmented lesions.

The purpose of surveillance of patients who have been diagnosed with malignant melanoma is to:^{1,2,3}

- Monitor the success of the primary treatment of the melanoma
- Detect local, regional or disseminated recurrences early so that early treatment can be undertaken
- Examine for a second primary malignant melanoma
- Provide patient education
- Provide reassurance and emotional support for the patient

Routine follow-up of malignant melanoma patients is the investigation of asymptomatic people with appropriate evaluation and intervention where necessary. A structured follow-up program assumes that early detection of any recurrence of melanoma will be more amenable to surgery. Although there are no randomized controlled trials, there is data to suggest that earlier detection of distant disease may influence survival. Patient education on what to watch for is important because many recurrences are found by patients.

The most important part of follow-up is a careful history and physical examination, including evaluation of the patient's general well being, history of weight loss, and specific symptoms such as cough or headache. Sixty percent of recurrences are discovered by physical examination with changes primarily being found between the site of the original disease and the regional lymph nodes.^{4,5,6,7,8} A full skin review with examination of the soft tissues, regional lymph nodes and organomegaly constitutes the appropriate standard of assessments of patients who have had a malignant melanoma.

GUIDELINE GOALS AND OBJECTIVES

To improve overall survival, disease-free survival, and quality of life for adult patients with high-risk malignant melanoma who are rendered disease-free following resection

GUIDELINE QUESTIONS

- Which patients should be referred to the cancer treatment centre?
- How quickly should the patient be seen by the specialist?
- What should the referral consist of?
- What is the appropriate duration of follow-up?
- What are the recommended follow-up intervals?
- What should be assessed during follow-up?
- Who should conduct the follow-up?

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: monitoring, surveillance, follow up, ultrasound or ultrasonography, referral, and malignant melanoma.

RECOMMENDATIONS

For staging please refer to Appendix A.

Referral

- It is expected that a referral will be forwarded to the cancer treatment centre regarding the patient's assessment. The referral will include the following:⁹
 - Letter describing the clinical disease
 - Pathology reports (e.g. melanoma biopsy or excision, lymph node dissection, and all previous reports of skin lesions)
 - Operative reports (e.g. lymph node dissection and wide excision)
 - Laboratory reports (e.g. LFT)
 - Information regarding other malignancies
 - Imaging reports (e.g. chest x-ray)
- All patients to be informed of signs of locoregional recurrence.
- All patients who have malignant melanoma could be seen at a cancer treatment centre for assessment.
- Referral is strongly encouraged for all patients with lesions 1 mm in thickness or greater, Clark IV or V or if ulcerated.
- All those patients with lesions less than 1 mm depth of invasion should be followed by their referring physician.
- Physicians who wish to be involved in the long-term follow-up of their patients may do so.
- Manual skin examination to be conducted by dermatologist.

Follow-up and Surveillance (Adapted from the National Comprehensive Cancer Network) ¹⁰

In situ malignant melanoma

- At least annual skin exam for life
- History and physical exam (with emphasis on nodes and skin)
- Educate patient on monthly skin self exam
- Exam should ensure adequate excision of the original lesion and include a review of skin self examination.

Lesions less than 1 mm

- H & P (with emphasis on nodes and skin) every 3-12 months to follow-up for specific signs and symptoms
- At least annual skin exam for life
- Educate patient in monthly self skin and lymph node exam
- The patient may be seen in the cancer clinic then discharged to the referring physician.
 - The patient should have a history and physical examination with full skin review carried out every six months for the first year and then annually.
 - No investigation is indicated, however, an initial chest x-ray for documentation and future comparison is optional.

Intermediate and thick lesions (lesions <1.0 mm with ulceration or lesions 1.0-4.0 mm and > 4 mm)

- History and physical examination (with emphasis on nodes and skin) every 3-6 months for three years, then every four to twelve months for two years, then annually as clinically indicated
- Chest x-ray, LDH, CBC, LFT every 6-12 months (optional)
- CT scan to follow-up for specific signs and symptoms
- At least annual skin exam for life
- Educate patient in monthly self skin and lymph node exam

Proven nodal metastases

- History and physical examination (with emphasis on nodes and skin) every 3-6 months for three years, then every four to twelve months for two years, then annually as clinically indicated
- Chest x-ray, LDH, CBC, LFT every 6-12 months (optional)
- CT scan to follow-up for specific signs and symptoms
- At least annual skin exam for life
- Educate patient in monthly self skin and lymph node exam

Stage IV: Lesions of any thickness with proven distant metastases

- The patient should be followed at the Cancer Centre at a frequency determined by the attending physician depending on the treatment plan.
- History and physical examination (with emphasis on nodes and skin) every 3-6 months for three years, then every 4-12 months for 2 years, then annually as clinically indicated
- Chest x-ray, LDH, CBC, LFT every 6-12 months (optional)
- CT scan to follow-up for specific signs and symptoms
- At least annual skin exam for life
- Educate patient in monthly self skin and lymph node exam

Patients receiving Interferon therapy

- These patients will be seen by the attending medical oncologist monthly during the year of treatment, every 3 months for 2 more visits and then every 6 months thereafter in the outpatient clinic.

Ocular Melanoma

- Patients with ocular melanoma will be assessed by the referring ophthalmologist and receive an initial assessment in the clinic.
- Subsequent follow up will be once yearly for 5 years and consist of a history and physical exam, liver function studies and a chest x-ray.
- For uveal melanoma, a reasonable consensus protocol is six-monthly follow up, with full clinical examination. Liver imaging, liver function tests and possibly a plain chest radiograph may be undertaken regularly or intermittently as clinically indicated.¹¹
- For conjunctival melanoma, due to the high likelihood of recurrence or new ocular lesions, indefinite biannual assessment is recommended; these patients should be followed-up for life.¹²

DISCUSSION

The best evidence currently available on the follow-up and surveillance of malignant melanoma is low-level evidence, as no prospective randomized controlled trials have yet been performed. Therefore, despite a lack of convincing evidence that regional control, quality of life or overall survival is increased through follow-up, it is assumed that earlier treatment is likely to result in improvements in these outcomes. From the patient's perspective, there may be preference for being seen more often, if reassurance is need; alternatively, a patient may prefer to be seen less often if the appointment bring about anxiety or due to associated time and expenses.¹³ According to a study in the UK by Dancey, et al. (2005), more often the former is the case and patients feel reassured by clinic visits.¹⁴

GLOSSARY OF ABBREVIATIONS

Acronym	Description
LDH	lactate dehydrogenase
Mets	metastases

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.

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APPENDIX: AJCC Staging Classification¹⁴
Melanoma TNM Classification
T classification

	Breslow thickness	Ulceration Status	Stage	5 year survival rate (%)
T1	< 1 mm	a: without ulceration and level II/III	IA	95.3
		b: with ulceration or level IV or V	IB	89-90.9
T2	1.01 – 2 mm	a: without ulceration	IB	89-90.9
		b: with ulceration	IIA	77.4-78.7
T3	2.01 – 4 mm	a: without ulceration	IIA	77.4-78.7
		b: with ulceration	IIB	63-67.4
T4	> 4 mm	a: without ulceration	IIB	63-67.4
		b: with ulceration	IIC	45.1

N classification

	No. of Metastatic Nodes	Nodal Metastatic Mass		
N1	1 node	a: micrometastasis*	IIIA	69.5
		b: macrometastasis**	IIIB	59
N2	2-3 nodes	a: micrometastasis*	IIIA/B	63.3
		b: macrometastasis**	IIIB/C	59
		c: in-transit met(s) / satellite(s) without metastatic lymph nodes	IIIB	No data available
N3	4 or more metastatic nodes, or matted nodes, or in transit combination of in transit mets/satellites or ulcerated melanoma and metastatic lymph nodes		IIC	26.7

M classification

	Site	LDH		
M1a	Distant skin, subcutaneous, or nodal mets	Normal	IV	18.8 + / - 3
M1b	Lung mets	Normal	IV	6.7 + / - 2
M1c	All other visceral mets Any distant mets	Normal	IV	9.5 + / - 1.1
		Raised		

*Micrometastasis are diagnosed after elective or sentinel lymphadenectomy

** Macrometastasis are defined as clinically detectable nodal metastases confirmed by therapeutic lymphadenectomy or when nodal metastasis exhibits gross extracapsular extension.