

I. BACKGROUND/RESEARCH

There are many different kinds of skin lesions: benign, pre-malignant and malignant which can occur anywhere on the body. These can include benign neoplasms, such as warts, cysts, moles, dysplastic nevi, skin tags, lipomas, angiomas, granulomas, keratoses, keratoacanthomas, and keloids, or they can be malignant neoplasms including basal cell carcinomas, squamous cell carcinomas and melanomas.¹ It is not always possible to clinically differentiate between benign and malignant lesions. Changes such as increase in size or pigmentation, bleeding, pain, itching, chronic irritation of clothing (bras, belts, etc.), and other issues such as family history may dictate need for removal or biopsy.

MALIGNANT LESIONS

The three most common malignancies are basal cell carcinoma, squamous cell carcinoma and melanoma.¹ Other rare cutaneous and subcutaneous malignancies are also seen.

Basal cell carcinoma arises from the basal layer of the epidermis or appendigeal epithelium and can be found anywhere on the surface, although it occurs most commonly on the head and/or neck. It is a slow growing tumor that rarely metastasizes.

Squamous cell carcinoma arises in the malpighian cells of the epithelium and may occur anywhere on the body. However, there is a strong association between this malignancy and sun exposure so many of these lesions are found on sun-exposed areas of the body, including the head and neck. Squamous cell carcinoma can occur in normal tissues, but it often arises in pre-existing actinic keratoses and sun-damaged skin. Eventually, it can ulcerate, invade underlying tissue and metastasize.

Most melanomas arise from the melanocytes of normal skin and pre-existing nevi. Although melanomas usually occur in sun-exposed areas of the body, they can develop anywhere on the skin surface. A small percentage of melanomas are familial. Danger signs that suggest a malignant transformation of a pigmented lesion include enlargement, itching, bleeding, or change in color or texture. If melanoma is suspected, the lesion should be excised completely and sent to pathology for examination. The thickness of the lesion is the single most significant factor in determining outcome. Those that are less than .76 mm thick have a low probability of metastasis or recurrence.² Surgery is the primary treatment for melanoma. Follow-up chemotherapy or immunotherapy may be needed for thick melanomas and/or those that have metastasized.³

With the increasing popularity of tanning devices, including tanning lamps and tanning beds that emit UV radiation, concern has arisen regarding a correlation between the use of these devices and the development of non-melanoma skin cancers. Recent research has indicated increased odds ratios of 2.5% for squamous cell carcinoma and 1.5% for basal cell carcinoma when these devices are used. Further research is needed, but patients should be advised of this concern.⁴

BENIGN LESIONS

There are many types of benign skin lesions, and the diagnoses can often be made by clinical examination. Those lesions for which the diagnoses are uncertain may require incisional or excisional biopsy.

LESIONS OF UNCERTAIN BEHAVIOR

There are other lesions which can only be diagnosed by incisional or excisional biopsy. Those would include lesions that have an atypical appearance or are known pre-malignant lesions, including giant hairy nevi and actinic keratoses. It would also include those that display the American Cancer Society criteria for suspicious lesions, including: a sore that does not heal; unusual bleeding or discharge; thickening or lump in skin or subcutaneous tissue; or obvious change in a wart or mole.

II. DIAGNOSTIC CRITERIA

The diagnostic process should include an appropriate examination of other skin surfaces in addition to the lesions in question. Regional node basins should be examined if squamous cell carcinoma or melanoma is suspected. Since skin lesions present in many forms, it is necessary to consider all possible presentations in making a diagnosis. Immunosuppressed patients show an increased incidence and metastatic rate of cutaneous tumors. Other predisposing factors include old burn scars, tattoos, vaccination scars, chronic ulcers, dermatofibromas, epidermal nevi, sebaceous nevi, and other areas of trauma.

MALIGNANT LESIONS

Diagnostic considerations are:

Basal Cell Carcinoma

Chronic exposure to sunlight is a major predisposing factor in the development of basal cell carcinoma. It often presents as a small, shiny papule and enlarges slowly. Likewise, exposure to radiation for therapeutic, diagnostic or accidental reasons can also lead to the development of basal cell carcinomas. Under these conditions a latency period of seven to 25 years is often seen.⁵

Physical characteristics of basal cell carcinoma include the following morphology:¹

1. Nodular – slightly translucent, waxy or pearly papule or nodule with surrounding and overlying telangiectasis
2. Superficial – erythematous, telangiectatic well-demarcated macule with fine scale
3. Sclerosing (morphaea) – ill-defined flat or depressed hypopigmented or yellowish indurated plaque, sometimes with overlying telangiectasis
4. Fibroma-like: moderately firm nodule with a smooth pink surface
5. Secondary changes may include ulceration, crusting, scaling, pigmentation, cystic collection, or scarring

Squamous Cell Carcinoma

Squamous cell carcinoma is the second most common type of skin cancer. It arises from atypical epithelial keratinocytes, usually appearing on skin that is damaged by the sun or in an actinic keratosis. This tumor begins as a red papule or plaque with a scaly or crusty surface. Chronic scarring processes from chronic wounds, pilonidal sinuses, thermal injury to the skin, discoid lupus erythematosus, and dystrophic epidermolysis bullosa, among other conditions, can serve as predisposing factors to the development of squamous cell carcinoma.

Physical characteristics specific to squamous cell carcinoma include:¹

1. Poorly defined, firm nodule, flesh colored to red, with hyperkeratotic crust
2. Ulceration as it grows

Melanoma

Like other skin cancers, the incidence of melanoma correlates significantly with exposure to the sun. It is most common in fair-skinned Caucasians. There can be a familial predisposition to melanoma. Pre-existing nevi, particularly those covering more than 1% of the patient's body surface area, can evolve into melanoma.

There are four major types of melanoma, characterized as:¹

1. Superficial spreading: Appears most often on the torso in males and the legs of women. It usually appears as a plaque with irregular edges and varigated coloration. Patients may note a change in size or color.
2. Nodular: May occur anywhere on the body. It tends to grow vertically. It tends to be dark, pearl grey to black and may enlarge rapidly.
3. Lentigo maligna: Appears most often on the face or other sun-exposed areas of the skin. It is usually an asymptomatic flat tan or brown macule with darker brown or black spots on its surface. It most often occurs in older individuals.
4. Acral lentiginous: Arises on the palmar, plantar or subungual skin. Evaluation of color, shape and growth are important for proper diagnosis of this condition.

BENIGN LESIONS

Diagnostic considerations are:

1. Stable or slowly enlarging size
2. Irritation from combing hair, shaving or from clothing
3. Itchy or painful
4. Unacceptable appearance

Diagnostic biopsy may be indicated with benign lesions if the clinical diagnosis is unclear.^{1,6} When a diagnostic biopsy is indicated, one of two types should be performed, depending on the nature of the lesion.

1. Incisional Biopsy – including the edge of the tumor and full thickness depth of lesion
2. Excisional Biopsy – removal of the entire lesion and a margin of normal tissue (used for small lesions or when melanoma is suspected)

Laboratory tests, except pathologic examination of a biopsy specimen, are seldom indicated. The presence of extremely large or extensive carcinoma may require consultation with an oncologist, radiotherapist or other specialist.

III. TREATMENT (all lesions types^{1-5, 7})

BACKGROUND

Procedures for the diagnosis and removal of skin lesions have certain factors in common, regardless of the nature of the lesion. These include:

Site of service – Many lesions may be removed in an office setting under local anesthesia. Others, due to their size, anesthesia requirements, individual patient needs, or the need for frozen section examinations, often are performed in an operating room.

Ancillary procedures – Many lesions can be excised and closed primarily with a simple closure. Others, due to their size, depth or location, will require more complicated methods of reconstruction to obtain the best functional and aesthetic results. To maximize the result secondary procedures may also be needed.

Pathologic consultation – Under most circumstances, tissue samples are sent to pathology for microscopic examination.

Inpatient care may be required if warranted by the patient's condition or the nature of the treatment. However, most skin lesions, whether benign or malignant, can usually be managed on an outpatient basis. Some of these can be managed non-surgically⁷ with techniques including cryotherapy⁷, electrodesiccation and curettage, radiation therapy, topical chemotherapy, (including 5-FU and Imiquimod), chemical peel, and laser ablation. However, these procedures are not appropriate for treatment of melanoma.

The tumor should be excised with adequate margins. Frozen section examination to confirm diagnosis or margins may be indicated. Re-excision is usually indicated if margins are positive. Moh's resection may be indicated for positive margins, morphaea tumor types or recurrent tumors. Reconstruction depends on the defect. Large defects of the face, for example, may require staged reconstructive procedures. Prophylactic or therapeutic node dissection may be indicated for certain tumors.

Depending on the nature of the primary lesion, some squamous cell carcinomas and melanomas will require management of the regional lymph nodes, including sentinel node biopsy and/or regional dissection. Additional treatment may include radiation therapy, chemotherapy and immunotherapy.



Postoperative complications include bleeding, infection and wound healing problems. Other complications can include incomplete or inadequate excision, requiring re-excision.

The patient should be evaluated as follows:

1. Simple, benign lesion: No follow-up needed
2. Simple malignancy: Follow-up in three months, six months and annually
3. Complex malignancy including melanomas should have periodic follow-up

Patients should be counseled at each follow-up visit about limiting their exposure to the sun, the use of sunscreen and wearing protective clothing. Photographic documentation of the skin surface can be useful for follow-up evaluation, particularly in individuals with a personal or familial history of dysplastic nevus syndrome.⁹ Patients with extensive sun damage and/or melanoma are at risk for recurrence as well as development of new lesions.

PROVIDER QUALIFICATIONS

The surgeon performing this procedure, regardless of the location of the surgical facility, should have fully approved hospital privileges for this procedure and be qualified for examination or be certified by a surgical board recognized by the American Board of Medical Specialties, such as The American Board of Plastic Surgery.

IV. DISCLAIMER

Patient Care Parameters are strategies for patient management developed to assist physicians in clinical decision-making. This Patient Care Parameter, based on a thorough evaluation of the scientific literature and relevant clinical experience, describes a range of generally acceptable approaches to diagnosis, management or prevent specific diseases or conditions. This Patient Care Parameter attempts to define principles of practice that should generally meet the needs of most patients in most circumstances.

However, this Patient Care Parameter should not be construed as a rule, nor should it be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed at obtaining the appropriate results. It is anticipated that it will be necessary to approach some patients' needs in different ways. The ultimate judgment regarding the care of a particular patient must be made by the physician in light of all the circumstances presented by the patient, the diagnostic and treatment options available, and available resources.

This Patient Care Parameter is not intended to define or serve as the standard of medical care. Standards of medical care are determined on the basis of all the facts or circumstances involved in an individual case and are subject to change as scientific knowledge and technology advance, and as practice patterns evolve. This Patient Care Parameter reflects the state of knowledge current at the time of publication. Given the inevitable changes in the state of scientific information and technology, periodic review, updating and revision will be done.

V. CODING

The following codes are provided as a guideline for the physician and are not meant to be exclusive of other possible codes. Other codes may be acceptable depending on the nature of any given procedure.

<u>Diagnosis</u>	<u>ICD-9</u>
A. Melanoma Malignant melanoma of skin	172.0-172.9
B. Other malignant neoplasm of skin (i.e. basal cell and squamous cell carcinoma)	173.0-173.9
C. Carcinoma in situ of the skin	232.0-232.7
D. Benign lesions of the skin	
1. Lipoma	214.0-214.9
2. Benign neoplasm of skin	216.0-216.9
3. Hemangioma and lymphangioma, any site	228.0-228.1
4. Sebaceous cysts	706.2
E. (Skin) neoplasms of uncertain behavior	238.2
F. Actinic keratoses	702.0
G. Changing lesions, including:	782.9
1. Enlarging or changing colors	
2. Dyschromia (abnormal pigmentation of skin)	
3. Obstructing an orifice	
4. Restricting vision	
5. Chronically irritated with evidence of:	
• inflammation	
• purulence	
• oozing	
• edema	
• erythema	
H. Bleeding	459.0
I. Painful	782.0
J. Itching	698.9
K. History of:	
• previous skin malignancy or	V10.82-3
• pre-malignancy	V13.3
• previously infected lesion	V12.09
• previous exposure to radiation i.e., therapeutic or sun exposure, sunburn, or tanning salons	V15.3
• family history of skin malignancy	V16.8
• removed for cosmetic reasons but the pathologic exam shows malignancy or pre-malignancy	



<u>Procedure</u>	<u>CPT Code</u>
A. Shaving for epidermal and dermal layers	11300-11313
B. Excision and simple closure, benign lesions	11400-11446
C. Excision, malignant lesions	11600-11646
D. Repair, intermediate layer closure wounds	12031-12057
E. Repair, complex wound closure	13100-13153
F. Adjacent tissue transfer or rearrangement	14000-14061
G. Split thickness skin graft	15050-15121
H. Full thickness skin graft	15200-15261
I. Destruction of benign or pre-malignant lesions by any method, including laser, with or without surgical curettage	17000, 17003-4
J. Excision, lymph nodes and lymphatic curettage channels	38500-38542
K. Cervical lymphadenectomy	38700-38724
L. Axillary lymphadenectomy	38740-38745
M. Inguinofemoral lymphadenectomy	38760-38765
N. Injection procedure; for identification of sentinel node	38792

VI. REFERENCES

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Approved by the ASPS® Executive Committee, March 2003.

