DERMATOLOGY

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<td>3) Ever received systemic steroids treatment.</td>
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<td>6) Retin-A.</td>
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### RESTRICTIONS/DEFER

- 1) Mild Acne/Comedones
- 2) All topical treatment.
- 3) Birth control pills.
- 4) Antibiotic treatment (oral).
- 5) Accutane Therapy, > 2 mos. after Rx end; no recurrence of cystic acne. Current dermatologist eval needed if acne persists. [Resolved acne no longer needs a current derm eval].
- 6) Retin-A.

### RESTRICTIONS/DEFER

- 1) Mild Acne/Comedones
- 2) All topical treatment.
- 3) Birth control pills.
- 4) Antibiotic treatment (oral).
- 5) Accutane Therapy, > 2 mos. after Rx end; no recurrence of cystic acne. Current dermatologist eval needed if acne persists. [Resolved acne no longer needs a current derm eval].
- 6) Retin-A.

### MEDICAL INFORMATION NEEDED:

- **MEDS. needed**
  - Generic information
  - Treatment: if history of any abnormal LFT during Accutane treatment, request date LFT became normal.
  - Check for past history of cystic acne, Accutane or steroid therapy.

- **DERMATOLOGY**
  - 9/19/94

### HISTORICAL

- **Mild Acne will become slightly worse in tropics.**
  - 1) Retin-A: sun exposure can cause skin or eye irritation - stress.
  - 2) Tropical climate will exacerbate any acne, but likely to cause cystic acne to recur

- **Acutane requires monitoring of CBC, LFTs, Pregnancy test and triglycerides every 3 mos.**
  - At high risk for severe exacerbation.
All Applicants:

- Report of Medical Examination within the past 1 year to include the following:
  - Skin cancer history to include description, size, and location of lesion(s).
  - Date(s) of diagnosis(s)
  - Histologic type, if known.
  - Treatment
  - History of same site recurrences
  - Recommendations for follow-up over the next 3 years.

- If lesion(s) within the past 2 years, copy of pathology report with interpretation, if available; If lesion was treated with cryotherapy or electrodesiccation and curettage, there may be no pathology report available.

If History Includes Treatment with 5-Fluorouracil (5FU)

- Specialist Evaluation (Dermatologist) to include the above listed information.

## CLEARANCE CRITERIA

<table>
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<th>REVIEWER</th>
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### Meets clearance criteria 1-5, AND
- Histologic type: Nodular, superficial (see comments), or unspecified.

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### Does not meet clearance criteria due to one or more of the following:
- Treatment not complete

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### Does not meet clearance criteria due to one or more of the following:
- Histologic type: morpheaform or basosquamous (see comments).
- Three or more lesions.
- Located on the eye (periorbital tissue, nose, or ear.
- History of treatment with 5-Fluorouracil (5FU).
- History of same site recurrences.

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<tr>
<th>MED ADVISOR</th>
<th>PCMO FOLLOW-UP</th>
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<td>After diagnosis, skin exam q4 months for the first year, every 6 months during the 2nd year, and annually thereafter.</td>
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### DIAGNOSTIC CODES

<table>
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<th>173</th>
<th>ICD</th>
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<td>Cross Reference ICD.9.CM</td>
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### NOTES AND INSTRUCTIONS FOR REVIEWERS

Reviewers to Consider:
- None
BACKGROUND: Basal cell carcinoma (BCC) is the most common malignant cutaneous neoplasm found in humans. The most common presenting complaint is a bleeding or scabbing sore that heals and recurs. Unfortunately, in the past there was a tendency to regard BCC as nonmalignant because the tumor rarely metastasizes. BCC advances by direct extension and destroys normal tissue. Left untreated or inadequately treated, the cancer can destroy the whole side of the face or penetrate subcutaneous tissue into the bone and brain.

RISK FACTORS: Fair skin and the degree of sun exposure are important risk factors. Outdoor workers and people who live in southern latitudes with higher levels of ambient ultraviolet B radiation are at greater risk. Men have a significantly higher incidence than women. Tanning salons with equipment that emits ultraviolet A or B radiation are also damaging and increase the risk of BCC.

LOCATION: Eighty-five percent of all BCCs appear on the head and neck region; 25% to 30% occur on the nose alone, the most common site. BCC is rarely found on the backs of the hands, although this site receives a significant amount of solar radiation. Tumors also occur in sites protected from the sun, such as the genitals and breasts. BCC in blacks is rare.

MANAGEMENT AND RISK OF RECURRENT: Histologic picture, anatomic location, and size are factors in predicting recurrence.

HISTOLOGIC TYPE:
- Nodular and superficial BCCs are the least aggressive and can be completely removed by electrodesiccation and curettage or by simple surgical excision.
- Tumors of the morpheaform and basosquamous varieties have the greatest recurrence rate. BCCs that histologically show poor palisading or have a micronodular (islands of tumor) and/or infiltrating strand pattern without sclerotic stroma clinically have poorly defined borders and are not apparent during physical examination. They subtly extend into surrounding tissue and are easily missed by blind treatment techniques such as surgical excision. An average of 7.2 mm of subclinical tumor extension was found in morpheaform BCCs in one study, compared with 2.1 mm of extension in well-circumscribed nodular lesions. As mentioned earlier, routine pathologic examination of surgically excised BCCs may not detect a small nodule or strand of BCC on the other side of the excision margin. These tumors need more aggressive treatment with wide excision or microscopically controlled surgery.

LOCATION:
- Increasing diameter of the lesion and location of the lesion on various sites of the head, especially the eye, nose, and ear, are associated with an increased risk of recurrence, whereas location on the neck, trunk, limbs, or genitalia is associated with a decreased risk of recurrence with curettage-electrodesiccation, radiation therapy, and surgical excision. BCCs on the nose or perinasal area may infiltrate along the perichondrium or penetrate into the embryonic fusion plane of the nasolabial fold, resulting in subclinical extension.

SIZE:
- The larger the tumor, the greater the chance of recurrence; increased subclinical extension is seen with larger tumors.

FACTORS PREDICTIVE OF RECURRENCE:
- Recurrent tumors
- Large tumors (>2 cm in diameter)
- Tumors that are incompletely excised
- Tumors located in areas where the risk of local recurrence is high, i.e., the central face and the peri orbital and periauricular areas.
- Tumors with indistinct clinical margins
- Tumors with aggressive histologic subtypes (micronodular, infiltrative, and morpheaform)
- Tumors with evidence of perineural invasion
- Tumors arising in irradiated skin or in chronic scars

RELATIVE RISK AND FOLLOW-UP: Patients treated for BCC should be followed periodically for 5 or more years. Patients with one BCC often develop another. Of patients with one BCC, 36% to 50% develop a second BCC during the 5 years after treatment. In another series, 41% of patients who had two or more previous skin cancers developed another BCC.

"Dr. Carnathan, OMS Dermatology: Consultation:
Of all BCC diagnosed and treated, 95% are cured. Of the 5% that recur, they recur within the first 2 years.
- Following the diagnosis of a BCC, the majority of 2nd basal cells occur within the first 2 years following diagnosis.

LESS COMMONLY USED TREATMENT MODALITIES

Effective 3/3/2005
Topical Chemotherapy

5-Fluorouracil (5-FU) is a structural analog of thymine that inhibits thymidylate synthetase, interfering with DNA synthesis in dividing cells and causing cell death. Topical 5-FU therapy can result in cure rates of 92% for SCC in situ and 95% for superficial BCC. The cosmetic outcome is very good to excellent in most cases, but during treatment significant inflammation and irritation may occur resulting in decreased patient compliance.

Topical 5-FU is much less effective in treating invasive SCC and BCC, most likely caused by inadequate drug penetration beyond the epidermis. The intralesional administration of 5-FU allows delivery of higher concentrations of the drug and has proven to be safe and effective for the treatment of superficial and nodular BCCs. Cure rates of 80% to 90% have been reported, providing an alternative to surgical or other ablative procedures.

Lasers

Lasers currently are used to treat a wide variety of skin conditions. The CO2 laser, one of the most commonly used lasers in clinical practice, generates a beam of light with a wavelength of 10,600 nm that is absorbed by water and nonselectively vaporizes the skin. The CO2 laser can be used in the focused mode as a cutting instrument for the excision of skin lesions and has the advantage of providing a bloodless field during the procedure. The CO2 laser also can be used in the defocused mode to ablate superficial BCCs and SCCs. Treatment with a 4-mm margin beyond the clinically apparent tumor is recommended, and the resultant defect is allowed to heal by second intention. No specimen is available for histologic control of the completeness of the treatment, as with other destructive treatment modalities. Further studies are needed to evaluate the long-term cure rates and cosmetic results following treatment with the CO2 laser.

Interferons

Interferons (IFN) are a group of naturally occurring cytokines that have multiple biologic effects including control of cell growth and differentiation, modulation of immune responses, and antiviral activity. The intralesional administration of IFN-alpha has shown promise in the treatment of superficial and nodular BCCs, producing cure rates of over 80%. The effectiveness of IFN-alpha in the treatment of BCC may be related to its effects on tumor cell proliferation and to the enhanced cytotoxicity of T-cells in contact with tumor cells. Further studies are needed to determine the amount of interferon and the duration of therapy required to achieve optimal results.

Retinoids

Retinoids are derivatives of vitamin A that have an important role in cell differentiation and in the control of cell growth and apoptosis. The efficacy of both oral and topical retinoids in the treatment of actinic keratoses is well established, but the overall response of advanced BCCs and SCCs to retinoids has been disappointing. Retinoids are emerging as valuable tools in preventing the development of new BCCs and SCCs. High doses of oral retinoids have proven effective in decreasing the incidence of NMSC in patients with xeroderma pigmentosum and basal cell nevus syndrome and in patients on immunosuppressive therapy following organ transplantation. The beneficial effects of retinoids on skin cancer chemoprevention do not persist after the discontinuation of therapy, and therefore long-term treatment is necessary. Skeletal toxicity, including calcification of tendons and ligaments, hyperostoses of the spine, and osteoporosis, complicates prolonged treatment with high doses of oral retinoids. [Habif: Clinical Dermatology, 3rd ed., Copyright © 1996 Mosby-Year Book, Inc.]

Literature review available.

Reviewers:

- Dr. Robert Carnathan, OMS Dermatology Consultant. 5530 Wisconsin Avenue, NW #830, Chevy Chase, MD 20851. Phone: 301-718-8616. Fax: 301-718-8758.
All Applicants:
- Specialist Evaluation (Dermatologist) within the past 1 year to include the following:
  - Skin cancer history to include description, size, and location of lesion(s).
  - Date(s) of diagnosis(s).
  - Assessment of tumor risk, i.e., does tumor have any high risk tumor features (see comments).
  - History of same-site recurrences.
  - Treatment
  - Recommendations for follow-up over the next 3 years.
- If lesion(s) within the past 5 years, copy of pathology report with interpretation, if available; If lesion was treated with cryotherapy or electrodesication, there may be no pathology report available.

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<tr>
<td>1. One or two lesions only.</td>
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<td>2. Low risk lesion; Not a &quot;high risk&quot; squamous cell carcinoma, i.e., tumor with any of the following characteristics (see comments):</td>
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<tr>
<td>- Location: located on lips or ears.</td>
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<td>- Size: Lesion &gt; 2 cm in diameter.</td>
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<td>- Depth: Lesion &gt; 2 mm deep.</td>
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<tr>
<td>- Poorly differentiated</td>
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<tr>
<td>- Scar carcinoma</td>
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<tr>
<td>- Immunosuppressed host</td>
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Meets clearance criteria 1 - 6 AND
- Tumor stage T0 (carcinoma in situ). 

PCMO FOLLOW-UP
Skin examination every 6-12 months.

Meets clearance criteria 1 - 4, AND
- Tumor stage T1 (tumor < 2 cm in diameter), AND
- Last occurrence greater than 1 year ago.

PCMO FOLLOW-UP
After diagnosis, skin exam q4 months for the first year, every 6 months during the 2nd year, and annually thereafter.

Does not meet clearance criteria due to one or more of the following:
- Tumor stage T1 (tumor < 2 cm in diameter) AND last occurrence less than 1 year ago.

PCMO FOLLOW-UP
DEFER
Risk varies - assess based on detailed history.

Does not meet clearance criteria due to one or more of the following:
- Tumor stage T2-T4 (> 2 cm):
- Three or more lesions.
- High risk squamous cell carcinoma as defined above.
- History of same site recurrence.

PCMO FOLLOW-UP
If cleared and lesion diagnosed within the past 2 years, skin and lymph node examination every 2-3 months for 2 years.
SQUAMOUS CELL CARCINOMA

DIAGNOSTIC CODES

32.9 ICD

Cross Reference ICD.9.CM

NOTES AND INSTRUCTIONS FOR REVIEWERS

Reviewers to Consider:
- None

COMMENTS

[From emedicine.com. Squamous Cell Carcinoma. Author: Glenn Goldman, MD, Assistant Professor, Department of Internal Medicine, Division of Dermatology, University of Vermont College of Medicine]

Background: Cutaneous squamous cell carcinoma (SCC) is the second most common form of skin cancer and frequently arises on the sun-exposed skin of middle-aged and elderly individuals. SCC is much more common in areas with a high incidence of sun exposure. Most SCCs are readily identified and removed in the physician's office as a minor surgical procedure. Larger, more invasive lesions may require aggressive surgical management and/or radiation therapy. High-risk SCC has a considerable metastatic rate and requires careful evaluation and treatment.

Staging: Most SCCs are nonmetastatic at the time of presentation and are staged based on their size.
- T0 lesions are in situ.
- T1 lesions are less than 2 cm in diameter.
- T2 lesions are 2-4 cm in diameter.
- T3 lesions are greater than 4 cm in diameter.
- T4 lesions are invasive of muscle or bone.

Treatment and Medical Care:

Radiation Therapy

Currently in the United States, ionizing radiation therapy is mainly used as a treatment of primary cutaneous carcinoma in patients who cannot tolerate or wish to avoid surgery, such as patients who are elderly or infirm. Cure rates for T1 lesions range from 85-95%. Radiation therapy offers the potential advantages of avoiding both the deformity and the trauma of a surgical procedure, and, for this reason, it has been advocated for lesions of the eyelids, medial and lateral canthi, nose, ears, and lips. Radiation therapy for SCC is commonly administered with fractionated doses of 400-800 cGy 5-12 times over 5-6 weeks.

Radiation therapy is not advocated for young and middle-aged patients because of the small but real risk of a radiation-induced cutaneous carcinoma or sarcoma later in life. Although the initial cosmetic result following radiation is often good, the long-term result is often poor, with atrophy, hypopigmentation, and telangiectasia. In addition, some patients treated with radiation develop radiation necrosis, and this risk increases over time. Radiation therapy is not advocated for use over bony structures because of the risk of osteoradionecrosis.

Surgical Care

Most SCCs are readily treated in the physician's office, with a reasonable expectation of cure. Because a high-risk SCC may grow rapidly and is capable of metastasis, such lesions should be expeditiously treated. The treatment of SCC must take into account multiple patient- and lesion-specific factors. The standard modalities available for the treatment of localized (primary invasive) SCC are surgery, electrodesiccation and curettage, excision with standard margin control, excision with Mohs micrographic margin control, and radiation therapy. Because SCC is a lesion that can recur, metastasize, and cause death and because recurrent SCC carries a relatively poor prognosis, every opportunity should be taken to effect complete tumor extirpation at first presentation.

Synchronous or metachronous metastasis from SCC most commonly results from a lesion on the temple or the ear with metastasis to the parotid lymph nodes or from a lesion on the lip with metastasis to the submental or cervical nodes.

Effective 1/26/2005
within several years from the time of diagnosis. In general, metastasis from see of the forehead, the temples, the eyelids, the cheeks, and the ears is to the parotid nodes, whereas metastasis from see of the lips and the perioral region is primarily to the submental nodes. High-risk tumors require skin and lymph node examinations at 2- to 3-month intervals during the first 2 years.

Prognosis: Most sees are readily treated with an expectation of cure. Nonetheless, local recurrence following definitive treatment is not uncommon, and metastasis and death may ensue. In 1965, Lund estimated a metastatic rate of 0.5% for see, a figure that has often been cited as a standard reference despite the fact that it was based on an incomplete survey of dermatologists at a time when most worrisome lesions were surgically removed or treated with radiation therapy. One key point to realize is that all hope is not lost when metastasis has occurred. Using surgery, irradiation, or combined multimodal therapy, cure rates of more than 50% may be achieved. In cases where nodal metastasis measures less than 3 cm (N1 nodal disease) or is confined to the superficial parotid nodes, cure rates of 85-95% are feasible. The treatment of metastatic SCC is an evolving concept, and further study is needed to standardize the utilization of surgery and radiation.

Cryosurgery

Liquid nitrogen cryosurgery is a safe and low-cost procedure for the ablation of selected SCCs and is well tolerated by patients who are elderly and infirm. For selected well-circumscribed SCCs, cryotherapy has provided a high cure rate. In the United States, cryosurgery is routinely used, primarily for in situ disease and actinic keratoses.

Curettage and Electrodesiccation

Several large studies have quoted cure rates of 96-99% for destruction by curettage and electrodesiccation of T0 and T1 (in situ lesions and invasive lesions <2 cm in diameter, respectively) SCCs. The quoted cure rates were affected by careful patient selection because most worrisome lesions were surgically removed or treated with radiation therapy.

The main advantage of curettage and electrodesiccation is a lack of margin control, and most dermatologic surgeons believe that the actual long-term cure rate for invasive SCC is much lower than that quoted in the literature. Nonetheless, the procedure is minimally invasive, well tolerated, and effective for in situ lesions without follicular involvement and for early invasive actinically derived SCC. Curettage and electrodesiccation is most appropriate for slow-growing keratinotic lesions on the trunk and the extremities.

Excision with Conventional Margins

Standard excision with permanent conventional sections is an excellent, highly effective, and well-tolerated therapy for many primary low-risk T1 SCCs. Cure rates following simple excision of well-defined T1 lesions may be as high as 95-99%.

A 4-mm margin of normal tissue is recommended for straightforward lesions. Because even small SCCs may extend into the subcutaneous fat, this excision should include the subcutaneous fat.

The disadvantages of excision with an arbitrary margin are that in some cases the pathology reveals a subclinical positive margin, thus requiring further surgery, and, in most cases, more normal tissue is sacrificed than is really necessary.

Simple excision is most valuable in the treatment of small primary SCCs on the trunk and the extremities and in small lesions of the cheek or the neck in which tissue sparing is not essential.

Mohs Surgery

The dermatologic surgeon offers the specialized modality of Mohs micrographic surgery (MMS). Because of its many advantages, MMS is the procedure of choice for SCC where tissue preservation is needed, for ill-defined SCC, and for high-risk SCC. The main advantage of MMS over simple excision in the extirpation of cutaneous SCC is the ability to examine nearly all deep and lateral margins and to carefully map residual foci of invasive carcinoma.

MMS provides a cure rate of 94-100% for SCC and has been of particular value in curing SCC with perineural invasion. In a comprehensive historical review, Rowe et al noted a local recurrence rate of % for SCC treated by MMS in comparison to % for SCC treated by all non-Mohs modalities. MMS offers the added benefit of preserving normal tissue and facilitating reconstruction.

MMS is routinely performed in an outpatient setting under local anesthesia and, therefore, is safe and cost effective. As a result of the fellowship training programs in dermatologic surgery, MMS is now widely available throughout the United States.

Follow-Up:

- Low-risk tumors are usually cured with appropriate surgical therapy, but patients at risk for additional SCCs should be evaluated with a skin examination every 6-12 months.
- High-risk tumors require skin and lymph node examinations at 2- to 3-month intervals during the first 2 years.

Effective 1/25/2005
submaxillary (upper cervical) nodes. Recognizing high-risk SCC to provide timely and appropriate care for potentially lethal neoplasms is important. Because cure following metastasis is far from certain, emphasis must be placed on early detection, thorough initial evaluation, and follow-up.

**High Risk SCCs:** Certain SCCs raise a red warning flag as so-called high-risk SCCs because of the observation that tumors with the features indicated below follow a relatively aggressive clinical course.

- **Location:** The lips and the ears have a much higher rate of recurrent and metastatic disease than SCC from other sites. The rates of metastases for SCC of the external ear and the lip are approximately 11% and 10-14%, respectively.
- **Size:** Lesions of invasive SCC measuring less than 2 cm in diameter are associated with a risk of metastasis of only 1.4%, whereas those greater than 2 cm in diameter have a metastatic rate of 9-13%.
- **Depth of invasion:** Increased depth of invasion of SCC is strongly associated with local recurrence, metastasis, and death. SCC with a depth of less than 2 mm rarely metastasizes. SCC with a depth of 2-6 mm has a metastatic rate of 4.5%, and SCC with a depth of greater than 6 mm has a metastatic rate of 15%.
- **Level of differentiation:** In his original articles, Broders noted a strong correlation between the lack of differentiation and the rates of local recurrence and metastasis in SCC of the skin and the lip. The actual value of histologic grading alone is not so clear because poorly differentiated tumors that do metastasize or recur may have other primary risk factors, such as deep penetration, large size, and perineural invasion, and most metastases are well differentiated. Nonetheless, poorly differentiated SCCs are generally accepted to behave more aggressively.
- **Scar carcinoma:** Numerous studies have demonstrated that the Marjolin ulcer type of SCC behaves aggressively, with a metastatic rate of approximately 18-38%. Likely, such tumors have a poorer prognosis and a greater metastatic rate because of delayed detection.
- **Immunosuppression:** The incidence of SCC in persons with organ transplants is at least 18-36 times that of the general population. Growth of SCC in these patients may be rapid, lesions are frequently multiple, and local recurrence and metastasis are frequent. Metastatic SCC is one of the most common causes of death in persons with cardiac transplants. Much like patients with organ transplant, patients with chronic lymphocytic leukemia or lymphoma are profoundly immunosuppressed and are at a high risk of aggressive cutaneous carcinoma, in particular SCC.

Perineural invasion of SCC has historically been associated with a poor prognosis with a local recurrence rate as high as 47% and a metastatic rate as high as 35%. Perineural invasion is a vexing problem for the pathologist reading routine sections, where perineural invasion is often difficult to identify and equally difficult to track. Although nerve bundles may be completely surrounded by SCC in a cufflike fashion, perineural invasion may be limited to a small arc of neoplastic cells adjacent to the nerve and may proceed unpredictably as single cells extending along nerve fibers or even intraneurally within the nerve fibers. In such cases, skin areas may develop between the bulk of the tumor mass and distant foci of perineural invasion. MMS is sensitive to the detection of perineural carcinoma and allows for the precise mapping that is needed to effect complete tumor extirpation. Using MMS, several authors have recently reported much lower rates of recurrence and metastasis.

- **Recurrent SCC:** The local recurrence rate following extirpation of recurrent SCC ranges from 10-23%, and recurrent SCC has a site-dependent rate of metastasis of 25-45%.

**Medical/Legal Pitfalls:**

- Malpractice suits are uncommon following diagnosis and treatment of SCC because, in most cases, both are straightforward and readily accomplished. Nonetheless, SCC is a lesion with the potential to cause substantial morbidity and even mortality, and physicians who diagnose and treat SCC are held legally accountable for actions that are taken (or not taken) that fall outside the standard of care.
- Failure to diagnose SCC may lead to substantial morbidity and occasionally mortality. Large court awards have been set for cases in which failure to diagnose SCC has led to death.
- Failure to treat and perceived inadequate treatment of SCC are common causes of malpractice claims against physicians. These cases occur most frequently when physicians either fail to use an adequately aggressive primary treatment or fail to recognize a high-risk lesion. Recognition of high-risk SCC may prevent metastasis and death, and therefore, appropriately aggressive and prompt treatment is indicated in such cases.
- Failure to provide appropriate follow-up is a pitfall. The courts hold the physician, not the patient, responsible for appropriate follow-up. Because primary treatment of SCC is not a guarantee of cure, ensuring adequate patient follow-up is essential. Failure to inform patients of the potential morbidity associated with SCC may lead to the lesion being regarded as trivial and not requiring follow-up.
Missed appointments following surgery may also indicate a patient who is worried or angry; the patient should be contacted with a phone call to reschedule the appointments and, when necessary, with a certified letter.

- Failure to explain all possible risks and complications of surgery is a pitfall. Surgery for SCC may cause bleeding, infection, scar formation, deformity, and nerve damage. The removal of deeply invasive lesions may lead to substantial morbidity, including paralysis and pain syndromes. Explaining all possible risks prior to surgery is essential. Also, the physician should not treat lesions outside the realm of his or her comfort. If a surgical complication develops, the physician who performed the primary procedure is held legally responsible, regardless of who handles the complication.

Literature review available.

Reviewers:

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