

Skin cancer is the most prevalent of all forms of human cancers. Early detection and treatment results in reduced mortality and morbidity. We will focus on pre-cancers (actinic keratosis), non-melanoma skin cancer (basal cell and squamous cell carcinomas), and melanoma.

## Actinic keratosis (AK): a “pre-cancer”

Actinic keratoses are considered the earliest stage in the development of skin cancer. They are small red or skin-coloured rough spots most commonly found on the face, ears, lips (“actinic cheilitis”), neck, lower arms, and back of the hands in fair-skinned individuals



who usually have had significant sun exposure. Proper use of clothing and sunscreens can help prevent AK even after extensive sun damage has already occurred. AK can be treated by liquid nitrogen cryotherapy (freezing), topical chemotherapy (applying a cream or gel), chemical peeling, laser surgery, curettage or excision, and photodynamic therapy (a light-sensitizing chemical is applied to the skin prior to exposure to a light source).

Multiple AK lesions can be treated in several ways, depending on individual patient tolerance and acceptability (including acceptability of associated

costs). Topical therapies such as imiquimod 3.75% (Zyclara), imiquimod 5% (Aldara), and 5-fluorouracil (Efudex) can be used for treating an entire area (“Field Therapy”) since there is often microscopic, but widespread damage to the surrounding area, termed “subclinical lesions.” During the treatment phase, AKs become increasingly erythematous, and small subclinical lesions become highlighted. Field treatment can be temporarily uncomfortable and unsightly, with erythematous ulcerations and crust formation. Treatment will often need to be repeated periodically in subsequent years. Lesions not responding to treatment warrant a biopsy. A new “Field Therapy” treatment for actinic keratoses has recently been approved by Health Canada. Picato gel (ingenol mebutate) comes from the sap of the plant *Euphorbia peplus* and is available in a 0.015% gel for treatment of AKs on the face and scalp, used once daily for 3 consecutive days. Picato 0.05% gel is used to treat AKs on the trunk and extremities, used once daily for 2 consecutive days. The relatively short treatment duration of Picato, as compared to the traditional 2-16 weeks of therapy with imiquimod and 5-fluorouracil, will likely promote enhanced patient compliance. Similar local skin reactions as to imiquimod or 5-FU are to be expected; this reaction is transient, follows a predictable time course occurring within 1 day of treatment initiation and peak in intensity up to 1 week following completion of treatment. These effects typically resolve within 2 weeks for areas treated on the face and scalp and within 4 weeks for areas treated on the trunk and extremities.

## Basal cell carcinoma (BCC)

Basal cell carcinoma is the most common type of skin cancer and appears frequently on the head or neck (nose is #1 site) as a small, fleshy bump. Other



parts of the body may be affected as well. Basal cell carcinomas are frequently found in fair-skinned people and rarely occur in dark skin. They are fairly slow growing.

Untreated, a BCC will often begin to bleed, crust over, heal, and then it will repeat the cycle (“a sore that doesn’t heal”). This type of cancer rarely metastasizes but should still be treated since it can destroy the skin around it and extend below the skin to the bone and nerves, causing local damage.

## Squamous cell carcinoma (SCC)

Squamous cell carcinoma is the second most common skin cancer; it is primarily found in fair-



skinned people and uncommonly in dark-skinned individuals. Typically located on the rim of the ear, the face, lips, and mouth, this cancer may appear as a rough bump or red,

scaly patch. The precursor lesion to an SCC is believed to be an actinic keratosis in many cases. SCC can develop into large masses and become invasive. Unlike basal cell carcinoma, this form of cancer more commonly metastasizes therefore, it is important to treat early.

## Melanoma

Melanoma is the most deadly of all skin cancers. However, melanoma can be curable when detected in its early stages. Since melanoma cells usually



continue to produce melanin, the cancer appears in mixed shades of tan, brown and black, although it can also be red or white. Melanoma can metastasize, making

early treatment critical. Melanoma may appear out of nowhere, or from a pre-existing mole. In Canada, 1 in 75 men and 1 in 90 women will develop melanoma, and almost 1000 Canadians will die each year from it.

Excessive sun exposure or tanning salon use, and especially sunburns, are the most important preventable cause of melanoma. Light-skinned, light-eyed, fair haired, freckled individuals are at particular risk. Heredity also plays a part. Atypical moles (dysplastic nevi), which may run in families,

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and the presence of a large number of moles can serve as markers for people who are at increased risk for developing melanoma. People with skin of colour can also develop melanoma, especially on the palms & soles (acral lentiginous melanoma), under the nails, in the mouth or on the genitalia.

Warning signs of melanoma include: changes in the surface of a mole; scaling, oozing, bleeding or the appearance of a new bump; spread of pigment from the border of a mole into surrounding skin; change in sensation including itchiness, tenderness or pain; stripes or spots on nails that come on without explanation. The “ugly duckling” sign appears to be quite important, simply put: any mole that doesn’t look like its neighbours (e.g. twice as big or 1 shade darker in colour) should be carefully assessed, biopsied or referred to a dermatologist.

### **Management summary**

The management of non-melanoma and melanoma skin cancers is largely surgical, from simple excision, to curettage & electrodesiccation, to Mohs surgery. BCCs can also occasionally be treated with radiation, topical chemotherapy (for superficial BCC), and very aggressive BCCs can soon also be treated with an oral medication. Patients diagnosed with a skin cancer or at high risk for melanoma should have periodic skin examinations (most would say yearly).

### **According to Cancer Care Ontario clinical practice guidelines:**

Patients especially at risk of developing skin cancer should be counselled about skin self-exams and offered yearly total body skin examination by a dermatologist.

### **High risk patients are considered:**

- Fair skin, red or blond hair, tendency to freckle & burn
- Personal or family history of skin cancer, e.g. melanoma
- Multiple moles, and/or any atypical moles
- Excessive sun exposure or tanning salon use
- Immunosuppressive therapy: e.g. transplant patients

## **Canadian Dermatology Association presents FREE Community Skin Cancer Screening at Toronto Dermatology Centre**

When: June 6, 2013; 5-7pm

Where: Toronto Dermatology Centre(4256 Bathurst St., #400, Bathurst & Sheppard)

Patients to RSVP to: [info@torontodermatologycentre.com](mailto:info@torontodermatologycentre.com) or 416-633-0001