Topical chemotherapy is applied with a cream such as Efudex (5-fluorouracil), Carac (5-fluorouracil), or Aldara (imiquimod). It is a highly effective treatment for pre-cancerous lesions such as Actinic Keratoses (AK). As an alternative treatment to surgery, topical chemotherapy can treat some superficial Basal Cell carcinomas (BCCa) and superficial Squamous Cell carcinomas (SCCa). This treatment is best reserved for early superficial skin cancers and can be unpredictable.

5-fluorouracil creams such as Efudex and Carac are the real chemotherapeutic drugs, killing abnormal cells directly. Imiquimod (Aldara) works differently by summoning forth immune cells that do the killing. It is called an immune response modifier. Imiquimod has also been applied to other skin cancers such as Bowen’s carcinoma in-situ and melanoma in-situ.

Topical Chemotherapy: Is it an option?

An appointment with your physician will help to determine the answer to this question. Not all forms of skin cancer can be treated with the use of topical chemotherapy. The treatment is done by the patient at home while the doctor carefully monitors the skin response during office visits. The physician can increase or decrease the frequency of use in order to achieve the result or to limit the skin reaction. Skin reaction may range from none to severe. The length of treatment can range from 2 to 12 weeks for actinic keratosis (AK) and 6 to 12 weeks for skin cancers.

Although covered by insurance, Aldara purchased directly can be expensive, around $600. 5-fluorouracil, on the other hand, is available in generic form and costs around $100.

Topical Chemotherapy for Actinic Keratosis

Actinic Keratoses are precancerous lesions. Click here to read more about Actinic Keratoses. Typical treatment instructions would be to apply the cream, covering the entire affected area 2 nights per weeks, 4 days apart, for 16 weeks. For example, you would apply the cream on Monday and then again on Thursday, or Tuesday and again on Friday. This treatment plan is for areas no larger than 5cm by 5cm.
Topical Chemotherapy for Superficial Basal Cell Carcinoma

A superficial BCCa that does not extend deeper into lower layers of the skin can be treated with topical chemotherapy. Click here to read more about Basal Cell carcinomas. Covering the skin cancer plus one centimeter of skin surrounding the tumor, ointment will typically be applied 5 consecutive nights per week (Monday through Friday) for up to 6 weeks with imiquimod. With 5-flourouracil, application be twice daily, every day for 6 to 12 weeks.

Side Effects of Topical Chemotherapy

Normal reaction of the treated area may include:

- Redness
- Scabbing
- Small, open sores
- Flaking
- Itching

Some patients may find they need to stop treatment early or take a break in the middle of the treatment course to limit the skin reaction. In some cases, especially where larger areas are treated, patients may develop flu-like symptoms that resolve quickly as treatment stops. Severe reaction can involve extensive oozing, crusting, and even ulcerations. Prolonged redness for many weeks after completing treatment can be unsightly but always resolves.

How Effective is Topical Chemotherapy?

Topical chemotherapy response can be unpredictable, especially with imiquimod. In some cases, no response would occur – no skin reaction and no cancer eradication. Even with skin reaction, cure is not guaranteed. Careful follow-up with the physician and occasionally biopsies are needed after completion of topical chemotherapy. Overall, for properly selected skin cancers, the cure rate can be 80-90%.