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Waitemata District Health Board
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FLUOROURACIL CREAM – SAFE PRESCRIBING - A BURNING ISSUE

- EXPLAIN HOW TO APPLY CORRECTLY
- WARN PATIENTS ABOUT ADVERSE EFFECTS AND INFLAMMATION
- ADVISE PATIENTS TO AVOID PROLONGED EXPOSURE TO SUNLIGHT DURING TREATMENT
- EXPLAIN THAT FULL HEALING MAY NOT OCCUR UNTIL SEVERAL WEEKS AFTER THERAPY HAS STOPPED

Fluorouracil cream (Efudix®) is used for the treatment of superficial malignant and pre-malignant skin lesions.[1] It is most often prescribed for solar or actinic keratoses and superficial squamous cell carcinoma (Bowen's Disease).[2,4]

Actinic keratoses are skin lesions caused by long-term sun exposure. These lesions have the potential to develop into squamous cell carcinoma if left untreated.[3]

EXPLAIN HOW TO APPLY CORRECTLY

Fluorouracil cream should be applied thinly to the affected area once or twice daily usually for 2-3 weeks, but in some cases this may be extended.[4]

Advise patients to wash the area with water first, dry the skin, apply a tiny amount of cream to the treatment areas and gently rub in with a fingertip, then rinse the finger thoroughly with water. Some patients may prefer to use a cotton bud to apply the cream, or wear a glove.

If it is applied once daily, it is best applied in the morning. If twice daily application is needed, it is best used in the morning and late afternoon or early evening.[2] Advise patients against applying immediately before bed because the cream may get onto bed linen.

Fluorouracil cream is not well absorbed into healthy skin, but it is absorbed through serous membranes [4] so it is very important that patients understand that they should avoid contact with the eyes and mucous membranes.[4] Keep off the lips, unless it is absolutely necessary, and take care when applying in or near skin folds because it is more likely to cause irritation.[2]

Tretinoin cream is sometimes used prior to starting a course of fluorouracil cream because it can enhance the effect and reduce time required for fluorouracil treatment. Tretinoin peels off the top layer of skin, and works best if it is used for two weeks prior to fluorouracil. Tretinoin may also be continued after the fluorouracil course has finished but careful sun protection is required.

WARN PATIENTS ABOUT ADVERSE EFFECTS AND INFLAMMATION

It is important to warn patients that adverse effects should be expected. Up to 97% of patients have reported at least one adverse effect with topical fluorouracil cream,[5] but only 5% of patients discontinued treatment. A review of several studies did not find any correlation between the degree of inflammatory reaction and lesion clearance.[5]

It may be helpful to show patients some of the images on dermnet (www.dermnet.org.nz) so they can see what to expect and to reinforce safety messages.

Ensure patients are aware that they should stop using the cream, and to contact their doctor if there are any unusual or severe reactions.[2]

Always reinforce to patients the importance of safe storage of fluorouracil cream. The cream should be kept in a place that is not accessible to children or other people that may use it inadvertently for a rash.[2] Fluorouracil cream should not be used during pregnancy or breastfeeding.[2,4]

ADVISE PATIENTS TO AVOID PROLONGED EXPOSURE TO SUNLIGHT DURING TREATMENT

To avoid excessive exposure to sunlight, it is advisable to stay indoors during the middle of the day during treatment with fluorouracil cream. It may be preferable to use the cream during the winter months. If treated areas are exposed to the sun, the reaction will be more vigorous; this can be unpleasant but may lead to a more successful treatment outcome.[2]

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FLUOROURACIL CREAM

EXPLAIN THAT FULL HEALING MAY NOT OCCUR UNTIL SEVERAL WEEKS AFTER THERAPY HAS STOPPED

When fluorouracil cream is applied to pre-neoplastic skin lesions, it typically produces the following pattern of response: erythema, scaling, tenderness, erosion, ulceration, necrosis and re-epithelialisation.[4]

Although the cream should not harm healthy skin,[4] there may be subclinical lesions on surrounding skin that will have a similar pattern of response to detectable lesions.[5]
The cream causes a mild to severe stinging or burning sensation during treatment, depending on skin sensitivity, severity of damage, and how long the cream has been used for.

In most cases, after 5-10 days of use the sun-damaged parts of the treated skin will become red and irritated. As treatment continues (11-14 days), sores and a crust may appear. This is because of the destruction of defective skin cells and is an expected part of treatment. A dressing can be used over these areas[2] depending on patient preference.

If the lesions are on the face, once the treatment course has finished, make-up or concealer may be used, however this may sting.[2]

In general, lesions on the face and scalp respond faster than on the limbs, trunk and hands.[4] Inform patients that healing may not be complete until one or two months after therapy has stopped. An oily emollient and/or a mild topical steroid cream may help to alleviate discomfort[2] or itch, although care is needed when applying to raw areas.

After the treatment has stopped, the skin gradually heals over 2-4 weeks while new skin replaces the sun-damaged skin. Treated areas are often redder than normal and may be more sensitive. This will gradually fade over a few weeks to months.[2] Reassure patients that scarring should not occur.

Ideally, it is best to review patients 2-3 weeks after starting treatment to ensure that there is a therapeutic effect and to check that there are no severe reactions. Further courses of treatment may be used if necessary, but ensure that patients are aware that they must not self-diagnose or re-start therapy without consulting with the prescriber first.[2]

Usual Treatment Response

Duration	Usual symptoms	Patient response
First 5-10 days	Redness and irritation	Avoid sunlight
11-14 days	Soreness and crusting	May use a dressing to cover lesion
15-28 days	Redness	May use oily emollient and/or mild topical steroid if necessary
2-3 months	Fading	May cover with make-up if desired

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