SAFER
SAFER USE OF HIGH RISK MEDICINES

Waitemata District Health Board
Best Care for Everyone

FLUOROURACIL - SAFE PRESCRIBING - A BURNING ISSUE

- EXPLAIN HOW TO APPLY CORRECTLY
- WARN PATIENTS ABOUT SIDE EFFECTS
- AVOID IN PATIENTS WHO HAVE DIHYDROPYRIMIDINE DEHYDROGENASE (DDP) ENZYME DEFICIENCY
- ADVISE PATIENTS TO AVOID PROLONGED EXPOSURE TO SUNLIGHT DURING TREATMENT
- EXPLAIN THAT HEALING MAY NOT BE COMPLETE FOR SEVERAL WEEKS AFTER THERAPY HAS STOPPED

Fluorouracil cream is used for the treatment of malignant and superficial pre-malignant skin lesions. It is most often prescribed for actinic keratoses and in situ squamous cell carcinoma. It is also occasionally used to treat superficial basal cell carcinomas.

Actinic keratoses are caused by long-term ultraviolet (UV) light exposure. These lesions have the potential to develop into squamous cell carcinomas if left untreated.

EXPLAIN HOW TO APPLY CORRECTLY

Advise patients to wash the area first with water, dry the skin, then apply a small amount of cream to all the affected 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 to 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. Advise patients against applying immediately before bed because the cream may get onto bed linen.

Fluorouracil cream is absorbed through mucous membranes, so it is very important that patients understand that they should avoid contact of the cream with eyes and the inside of the nose. The lips should be avoided unless it is absolutely necessary on this site.

Tretinoin cream is sometimes used for two weeks prior to starting with a course of fluorouracil cream because it can enhance the effect, and reduce the time required for fluorouracil treatment. Skin must be protected from the sun with sunscreen and exposure to the sun avoided where possible.

AVOID IN PATIENTS WHO HAVE DIHYROPYRIMIDINE DEHYDROGENASE (DPD) ENZYME DEFICIENCY

Between 3 and 5% of the population may have partial dihyropyrimidine dehydrogenase (DPD) enzyme deficiency. Patients using fluorouracil should be advised to contact their doctor immediately if they develop fever, chills, fatigue, bloody diarrhoea, vomiting and abdominal pain as these may be signs of life-threatening systemic toxicity.

WARN PATIENTS ABOUT SIDE EFFECTS

It is important to warn patients that adverse effects are expected ranging from mild to severe, including erythema, dryness, pruritis, rash, pain, erosion, crusting, changes in skin colour and inflammation. If any of these symptoms persist or worsen, patient should be advised to consult their doctor or pharmacist.

There may be some systemic absorption which may lead to fever, headache, nausea, diarrhoea, and stomatitis.

Although, life threatening adverse events caused by topical fluorouracil are rare, prescribers should be aware of the possibility and patients advised to stop using the cream and contact their doctor immediately if they develop any of these side-effects.

The cream should be kept in a place that is not accessible by children or other people that may use it inadvertently, for example for a rash.

Pregnancy and breastfeeding

Fluorouracil cream should not be used during pregnancy or breastfeeding.

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FLUOROURACIL

ADVISE PATIENTS TO AVOID PROLONGED EXPOSURE TO SUNLIGHT DURING TREATMENT

It is advisable to stay indoors during the middle of the day during treatment with fluorouracil cream and it may be preferable for patients to use the cream during the winter months.

EXPLAIN THAT HEALING MAY NOT BE COMPLETE FOR SEVERAL WEEKS AFTER THERAPY HAS STOPPED

The cream usually causes a mild to severe stinging or burning sensation during the treatment period, and there may be subclinical lesions on surrounding skin

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 crust may appear. A dressing can usually be used over these areas depending on patient preference.

Inform patients that healing may not be complete until one or two months after therapy has stopped.

Treated areas are often redder than normal and may be more sensitive. This will gradually fade over a few weeks to months. Reassure patients that scarring is not expected although they should be aware that scarring and hyperpigmentation is a known side effect. An oily emollient and/or a mild topical corticosteroid cream may help to alleviate discomfort or itch, although care is needed when applying to raw areas.

Ideally, it is best to review patients 2-3 weeks after starting treatment to ensure that there is a therapeutic but not an excessive effect of the cream. Further courses of treatment may be used if necessary, but make sure that patients are aware that they must not self-diagnose or re-start therapy without consulting with the prescriber first.

Usual treatment response

Duration	Usual symptoms	Patient action
First 5-10 days	Redness and irritation	Avoid direct sunlight
11-14 days	Blistering, peeling , cracking, sores and crusting, may be some discomfort	May use a light dressing to cover lesion Arrange appointment with doctor
14-28 days	Redness	May use white soft paraffin, oily emollient or mild topical corticosteroid cream ,if necessary
2-3 months	Fading	May cover with make up if desired

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Key references

1. Fluorouracil New Zealand Formulary. nzf.org.nz/nzf_6482.html (Accessed 30-10-18)
2. Oakley A, Fluorouracil cream. DermNet 2016, New Zealand https://www.dermnetnz.org/topics/5-fluorouracil-cream/ (Accessed 30-10-18)
3. MedSafe Data sheet, Efudix iNova Pharmaceuticals Jan 2018 www.medsafe.govt.nz/profs/datasheet/e/Efudixcr.pdf (Accessed 29-10-18)

CLICK HERE FOR FURTHER INFORMATION ON FLUOROURACIL AND A FULL REFERENCE LIST

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