

Methotrexate and photosensitivity

Methotrexate is an immunosuppressant medicine that is used to treat inflammatory conditions such as rheumatoid arthritis, Crohn's disease and, of course, psoriasis and psoriatic arthritis. It is also used as a cancer treatment.

The Medicines & Healthcare products Regulatory Agency (MHRA) has recently received a coroner's report following a case of a photosensitivity reaction in a patient on methotrexate. This reaction was found to have contributed to their death by secondary infection. As a result of this, the MHRA have reviewed the information available to healthcare professionals and patients regarding these reactions and sought advice from the Pharmacovigilance Expert Advisory Group (PEAG) of the Commission on Human Medicines.

Photosensitivity reactions are established side effects of methotrexate treatment and are currently listed in the product information, including the Patient Information Leaflet (PIL). However, the PEAG was concerned that it is not a well-known side effect and many people may not be aware of the additional risks of sun exposure during methotrexate treatment.

Characteristics of reactions

Photosensitivity reactions often look and feel like sunburn. They can leave sun-exposed skin with a rash, redness, swelling, blisters, red bumps or oozing lesions. Severe cases can cause secondary skin infection.

Photosensitivity reactions fall into two categories: phototoxic reactions and photoallergic reactions.

In phototoxic reactions, a drug is activated by exposure to UV light and causes damage to the skin that can look and feel like a sunburn or a rash. These reactions can happen within minutes or after hours of exposure and are usually limited to the skin that has been exposed.

Photoallergic reactions occur when UV rays interact with the ingredients in medicines or other products applied directly to the skin. The body's immune system recognises changes caused by sun exposure as a foreign threat. The body produces antibodies and attacks, causing a reaction.

These reactions are distinct from "recall" reactions where radiation-induced dermatitis and sunburn can reappear on re-exposure to radiation and sunlight while on methotrexate therapy.



Advice:

- Methotrexate treatment may make your skin more sensitive to the sun
- Sun exposure during methotrexate treatment could cause very severe reactions that look and feel like sunburn
- Avoid exposure to intense sunlight (especially between 11 am and 3 pm) or to UV rays (for example, using sunbeds or tanning equipment) while taking methotrexate
- Use a sun protection product with a high protection factor when exposed to the sun
- Wear a hat, and clothes that cover your arms and legs, when in the sun
- Talk to a healthcare professional if you are worried about a skin reaction you have had while taking methotrexate.

If you do get any form of reaction while taking methotrexate, or indeed any medication, you can report it via the Yellow Card Scheme.

The Yellow Card scheme

The MHRA runs the Yellow Card scheme, which collects and monitors information on suspected safety concerns involving healthcare products, like a side effect with a medicine or an adverse medical device incident.

<https://yellowcard.mhra.gov.uk/>

 **Yellow Card**