



# Methotrexate and other cytotoxics - Guidance for Care Homes and Nursing Homes



Cytotoxics are a powerful group of drugs and should be treated with great care. They affect how the body's cells grow and reduce the activity of the immune system. It is therefore very important that all care home staff involved in the administering of medicines or the handling of body fluids are provided with the appropriate training to ensure they are aware of the associated risks.

**Cytotoxics include Fluorouracil, Hydroxycarbamide, Mercaptopurine, and Methotrexate.**

## Personal Protective Equipment (PPE)

- Always wear appropriate PPE (eg gloves (preferably nitrile) and a disposable apron) when administering cytotoxic medication.
- Always ensure PPE is disposed of safely to prevent potential harm to others.
- The same precautions regarding PPE and safe disposal should be followed when handling body fluids, faeces or contaminated clothing, dressings, linens etc (for up to seven days following the last dose).
- Residents and care home staff should wash hands thoroughly following administration of cytotoxic medication.

Women of child bearing age who are being asked to administer cytotoxic medication must be informed of the fact that cytotoxic medication exposure may harm an unborn baby. This further highlights the importance of always wearing appropriate PPE.

## Administration

- Cytotoxic medication should never be dispensed in a compliance aid or a monitored dosage system (MDS).
- Reduce the number of manipulations to prevent unnecessary exposure to cytotoxic medication when administering to the resident.
- Tablets should not be handled directly. Care home staff should wear gloves.
- Only remove cytotoxic medication from its container when in front of the resident.
- Transfer medication from bottle/foil via a designated medicine pot/spoon or oral syringe reserved and clearly labelled "for cytotoxic medication only". These should be washed thoroughly between doses and safely disposed of at the end of treatment. Wear appropriate PPE equipment for this process.

All oral cytotoxic medication doses should be double checked by another member of staff who is authorised to administer medication prior to administration.

## Monitoring

- Residents taking cytotoxic medication will require regular blood tests.
- It is important to note any new or worsening symptoms experienced after starting cytotoxic medication treatment and discuss them with the resident's doctor.
- Serious side effects can occur acutely at any time during treatment. Residents and carers should be aware of these and stop treatment immediately and seek urgent medical advice from the doctor.

These include:

- **Severe skin rash that causes blistering:** (this can affect the mouth and tongue). These may be signs of a serious condition known as Stevens Johnson Syndrome.
- **Persistent cough, pain, difficulty breathing or breathlessness:** cytotoxics can occasionally cause inflammation of the lungs.
- **Skin rash and fever with swollen glands:** particularly in the first two months of treatment, as these may be signs of a hypersensitivity reaction.
- **Sore throat, fever, chills or muscle aches:** cytotoxics can make the resident more likely to catch infections. Be careful about the risk of infections and take sensible precautions to avoid them.
- **Severe allergic reaction (anaphylactic reaction):** although very rare the resident may

experience a sudden itchy skin rash (hives), swelling of the hands, feet, ankles, face, lips, mouth or throat (which may cause difficulty in swallowing or breathing), wheezing and feeling faint. If this occurs, seek medical attention immediately.

- **Whites of the eyes become yellow or severe itching of the skin:** this is sometimes a sign of liver problems.
- **Severe and continuing diarrhoea or vomiting:** risk of dehydration can lead to the kidneys being unable to flush cytotoxics from the blood.
- **New unexplained bleeding or bruising:** can indicate that blood cells are being affected by the cytotoxics.
- **Chickenpox and shingles:** if the resident has never had chickenpox they may be at risk of severe infection from the virus. If close contact with someone who has either of these conditions occurs, you should contact the doctor promptly as special treatment may be required.

### Safe disposal of cytotoxic medication

- Cytotoxic medication must be disposed of safely to avoid potential harm to others.
- Care homes with nursing will need to obtain a cytotoxic waste disposal bin from their waste contractor to dispose of cytotoxic medication. Cytotoxic medication must never be disposed of in an ordinary waste bin.
- Care homes (without nursing) will need to return cytotoxic medication to the pharmacy for disposal. The tablets awaiting disposal must be put in a sealed container clearly marked cytotoxic medication.

### Specific information on Methotrexate:

Methotrexate can be used in large doses to treat certain types of cancer or in smaller doses to treat severe psoriasis, rheumatoid arthritis or Crohn's disease. Please note that methotrexate is given as a **once weekly dose** and should **never** be administered on a daily basis as this could result in severely reduced immunity, serious infection and could prove fatal. Care home staff should ensure appropriate safety measures are in place to prevent this from occurring. Particular care should be taken on initiation of methotrexate as the dose must still only be given once a week even though it may start at a low level and be slowly increased each week until stabilised.

### Dosage

- Methotrexate should be taken as a single dose, **once a week**, on the same day each week.
- The joint formularies recommend that methotrexate should be labelled stating the instructions clearly, for example: '**Methotrexate 2.5mg tablets: (number of tablets) to be taken as a single dose ONCE A WEEK on XXXDAY**'.
- Tablets should be swallowed whole with water whilst sitting upright or standing.
- Never crush or break tablets.
- Residents taking methotrexate should avoid alcohol throughout the whole treatment period. Alcohol consumption may increase the risk of liver damage.
- Folic acid may be prescribed to help to reduce the side effects of methotrexate.
- If a resident refuses to take their methotrexate or folic acid, the doctor must be informed.

### Records

- On receipt of the Medication Administration Record (MAR) Sheet the care home should cross through the days when methotrexate is **not** to be given and clearly highlight which day it is to be given.
- The patient-held monitoring and dosage record must be kept up to date throughout treatment.

### Administration

- Oral methotrexate should be double checked by another member of staff who is authorised to administer medication prior to administration. Only ONE strength of methotrexate tablet (2.5mg) is usually prescribed and dispensed. Confirm tablet strength with the prescriber if a 2.5mg tablet is not used. Reduce the number of manipulations to prevent unnecessary exposure to methotrexate when administering to patient.

Cytotoxics are safe and effective medication if taken at the right dose and with appropriate monitoring. Care homes must have robust procedures in place to minimise the potential for harm to the resident and staff.

