The NPSA (2006) highlighted very occasional problems with taking methotrexate causing harm and even death. To ensure the safe use of methotrexate, ensure your organisation is compliant with the recommendations made in the PATIENT SAFETY ALERT

All Prescribers

Oral
- Prescribe oral methotrexate dose in multiples of 2.5mg tablets and the frequency as “ONCE a week on the same day each week”. The total dose in quantity of tablets and milligrams must be included.
- 10mg tablets MUST NOT be prescribed or dispensed.

Subcutaneous
- Subcutaneous methotrexate must be prescribed by brand (and generic where systems allow). Primary care must be informed of any brand switch of subcutaneous methotrexate.
- If switching between subcutaneous methotrexate products is necessary, patients should be informed in advance. For patients who are self-administrating training must be provided to ensure that new brand is administered correctly.

On initiation of Treatment with Methotrexate
- The patient must be carefully advised of the dose and frequency and the reason for taking methotrexate and any other prescribed medicine (e.g. folic acid).
- All patients should be provided with a hand-held information booklet or local equivalent.
- Monitoring and administration requirements should be discussed with the patient and recorded in the patient’s notes.
- The patient must be warned to report immediately the onset of any features of blood disorders (e.g. sore throat, bruising, and mouth ulcers), liver toxicity (e.g. nausea, vomiting, abdominal discomfort, and dark urine), and respiratory effects (e.g. shortness of breath, stomatitis).
Safety

- Prescribing of methotrexate with co-trimoxazole or trimethoprim is an ABSOLUTE CONTRAINDICATION and MUST NOT occur under any circumstances*. This contraindication applies to people that have recently taken methotrexate.

- There are other potentially significant drug interactions with methotrexate therefore prescribers must familiarise themselves with the patient’s medication history when prescribing methotrexate and ensure there are no clinically significant drug interactions.

- Methotrexate therapy should be reviewed and temporary suspension considered when patients are being treated for active infection.

- NHS Improvement Never Events List 2018 includes the never event around overdose of methotrexate for non-cancer treatment. It states an overdose refers to when a patient is given a dose of methotrexate, by any route, for non-cancer treatment that is more than the intended weekly dose; such an overdose was given in a care setting with an electronic prescribing system. Any incidents related to content of the statement should be reported on local incident reporting systems.

Secondary Care Prescribers

- It is the prescriber’s responsibility to record the correct dosage and frequency on the hospital drug administration chart and to strike out the six days of the week when a dose must not be administered. For electronic prescribing systems; prescribers need to select weekly for the correct day to ensure that the correct weekly dose is automatically scheduled for administration.

- Ensure that methotrexate is recorded in the patient’s medication record (e.g. summary care record or discharge summary).

Primary Care Prescribers

- If prescribing and monitoring are to be carried out by primary care then ensure a shared care agreement is in place

- Ask to see the patient’s monitoring booklet and check if any dose changes have been made since the last prescription issue.

- If oral or subcutaneous methotrexate is being issued by the hospital, primary care prescribers must ensure that it is recorded on current medication record as a “Medicine Prescribed Elsewhere” or “Hospital Drug”.

All Healthcare Professionals

- Be aware of patients who present with symptoms such as breathlessness, dry persistent cough, vomiting or diarrhoea, stomatitis as these can be signs of oral methotrexate toxicity or intolerance.

- Report any adverse drug reactions via MHRA Yellow Card scheme https://yellowcard.mhra.gov.uk/

For Pharmacy in Primary Care

- Ask to see the patient’s monitoring booklet and check if any dose changes have been made since the last prescription issue.

- Always check for drug interactions. If a drug interaction is identified, ensure prescriber is made aware before dispensing.

- Pharmacists should refuse to dispense and query any prescription for 10mg tablets with the prescriber.

References

2. NPSA: Towards the safer use of Methotrexate NPSA 2004
4. NHS Improvement Never Events List 2018

*In exceptional circumstances, specialist paediatric services may use co-trimoxazole prophylaxis, with watchful increased monitoring, for Pneumocystis pneumonia in children on immunosuppressive triple therapy that includes low dose methotrexate for inflammatory bowel disease. Similarly, a three day course of trimethoprim may be considered with watchful increased monitoring if it is the ONLY antibiotic choice for urinary tract infection; full blood count is checked within a week of starting the course and then within two weeks of finishing it. In both scenarios, the specialist paediatric service will prescribe, supply and monitor treatment.