

**Department of Rheumatology**

**Methotrexate**  
**Oxfordshire and Berkshire Region Rheumatology Guidelines**

**To be read in conjunction with the shared care agreement between Oxfordshire and Berkshire Primary Care Trusts and the Rheumatology Department.**

**Background for use**

Methotrexate is a disease modifying anti rheumatic drug, of proven benefit in the treatment of rheumatoid arthritis and other auto immune diseases.

Methotrexate should only be initiated on the recommendation of a rheumatologist.

Methotrexate can be administered orally or sub-cutaneously.

**Dosage**

Methotrexate is given weekly. It should be supplied using 2.5 mg tablets. The initial starting dose is 7.5mg or 10 mg taken as a single dose **once a week**. The dose may be increased incrementally to 15mg weekly. Further increases in dose may be advised by the rheumatologist, up to a maximum of 25mg weekly. If maximum oral dose is not effective or causes intolerance, sub-cutaneous route of administration will be considered before discontinuation

Folic Acid 10mg weekly should be prescribed concurrently, not to be taken on the same day as methotrexate. This may be increased if side effects occur.

**Pre treatment Assessment**

FBC, ESR, CRP, LFT's, U&E's and a baseline chest X-ray (unless chest Xray done within last 6 months) will be checked prior to commencement. Lung Function tests may be requested in patients with risk factors or pre-existing lung conditions.

**Monitoring**

FBC, ESR, CRP and LFT's, U& E's every two weeks for three months, then monthly. If possible blood tests should be taken at the trough level, i.e. on the morning before taking the Methotrexate.

If the patient's blood count, LFT's and disease are stable for a year the frequency of monitoring may be extended to 6-8 weekly

**Please note that in addition to absolute values for haematological indices a rapid fall or a consistent downward trend in any value should prompt caution and extra vigilance**

Side Effects	Actions
WBC < 3.5 X 10 <sup>9</sup> /l	Withhold; repeat WBC, if normal continue, otherwise discuss with specialist team
Neutrophils < 2 X10 <sup>9</sup> /l	Withhold until discussed with specialist team

Platelets <150 X10 <sup>9</sup> /l	Withhold until discussed with specialist team
Liver function >2 fold rise in ALT/AST from upper limit of reference range	Withhold until discussed with specialist team Transaminase increase 2 X normal is common within 2 days of drug administration. Consider rechecking ALT/AST at trough level.
MCV > 105 fl	Check folate., TFT, B12. If B12 or folate low, start appropriate supplementation.
Renal Impairment. i.e eGFR <30 mls / minute	Reduce dose by 50% Increase frequency of monitoring
Unexplained fall in Albumin (in absence of active disease)	Withhold until discussed with specialist team
Nausea	Ensure pt is on Folic acid, consider increase of Folic acid. If nausea severe increase folic acid to 5mg 6 days / week omitting day MTX is taken. Split MTX dose over one evening and the next morning. An anti-emetic can be prescribed.
Mouth ulcers	May respond to an increase in Folic Acid, as above
Rash or severe oral ulceration	Withhold until discussed with rheumatologist. Look for alternative causes. Re-challenge with lower dose once symptoms settle.
Menstrual dysfunction / Amenorrhoea	May occur during treatment and for a short time following cessation.

### Contra Indications and Precautions

Pregnancy and breastfeeding	For men and women, contraceptive advice should be given during treatment, as pregnancy should be prevented for a minimum of 4 months after discontinuation of treatment. Breast feeding should be avoided
Vaccination with LIVE vaccines	Patients receiving methotrexate must NOT receive immunization with LIVE vaccines. Inactivated polio is available although sub-optimal response may be seen.
Elective surgery	Methotrexate therapy is usually continued. Caution for early detection of infection and complications
NSAIDs	Most NSAIDS can be continued. Exercise caution regarding LFT and renal function particularly in the elderly
Chronic liver disease / alcoholism	Alcohol can cause potential liver damage therefore alcohol consumption should be within national recommendations

Chicken pox /Shingles	Patients suffering from chickenpox or active skin lesions in shingles withhold methotrexate and inform rheumatologist Exposure to chickenpox or shingles passive immunization should be carried out using VZIG
Severe sore throat, abnormal bruising	Immediate FBC and withhold until result of FBC available
Any significant infection	Treat infection as appropriate and withhold methotrexate until symptoms resolve.

**Notes:**

- One weekly dose of Methotrexate can be withheld without inducing a flare.
- Pneumovax and annual flu vaccinations are recommended.
- NSAIDs may be continued

**Notable Drug Interactions (refer to BNF and SPC)**

- Phenytoin: anti-folate effect of Methotrexate is increased
- Penicillin: Methotrexate excretion is reduced
- Co-trimoxazole and Trimethoprim: anti-folate effect of Methotrexate is increased and greatly increases the risk of marrow aplasia.
- NSAID's: can be continued with regular monitoring. Patients must be advised against using OTC medications e.g. ibuprofen, aspirin

**Contact Telephone Numbers**

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