

# **MMG031 GUIDELINES FOR PRESCRIBING ORAL METHOTREXATE ON INPATIENT WARDS**

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# **GUIDELINES FOR PRESCRIBING ORAL METHOTREXATE ON INPATIENT WARDS**

## **Why we need this Guideline**

Methotrexate is a cytotoxic drug, which is often used in conditions such as rheumatoid arthritis, psoriasis and some cancers.

If taken at the correct dose and with appropriate monitoring, oral methotrexate is safe and effective. However, nationally there have been a number of patients who have been harmed by the incorrect prescribing, administration or monitoring of methotrexate and as a result the National Patient Safety Agency (NPSA) published two patient safety alerts ( NPSA/2004/03 and NPSA/2006/13)<sup>1,2</sup>

The most usual error is for methotrexate to be prescribed or administered daily instead of weekly which can cause serious harm or death.

Patients will not be initiated on methotrexate by an NHFT doctor as it should be initiated by a specialist. There may be occasions when patients who are prescribed methotrexate are admitted on it, or treatment is commenced while they are under the care of NHFT.

## **What the Guideline is trying to do**

To provide guidance on the management of patients prescribed oral methotrexate, to reduce the risk of harm from incorrect prescribing administration or monitoring of methotrexate.

## **Which stakeholders have been involved in the creation of this Guideline**

Medicines Management Committee

## **Any required definitions/explanations**

NHFT - Northamptonshire Healthcare NHS Foundation Trust

NPSA - National Patient Safety Agency

## **Key duties**

### **Medicines Management Committee**

Will approve and review these guidelines.

### **Medical Director**

Is responsible for the dissemination of this guideline to their Clinical Directors and Clinical Tutors.

### **Clinical Directors**

Are responsible for the dissemination and implementation of the guideline in their service areas.

### **Heads of Service**

Are responsible for the dissemination and implementation of the guideline in their service areas.

### **Doctors**

Are responsible for reviewing the patient, prescribing oral methotrexate and ensuring that any required monitoring is undertaken.

### Nursing staff

Are responsible for ensuring that methotrexate is given on the specified day of the week as prescribed, and highlighting any signs of toxicity or intolerance to the doctor so that the patient can be reviewed.

### All staff

All staff involved in the care of a patient on oral methotrexate should be aware of patients reporting symptoms of:

- breathlessness
- dry persistent cough
- vomiting,
- diarrhoea
- fatigue
- chills and fever
- any signs of liver disease
- infection
- sore throat
- bruising
- mouth ulcers

These can be signs of oral methotrexate toxicity or intolerance. If these symptoms are present, the patient should be reviewed by the doctor who should then seek advice from the prescribing clinic/GP or if out of hours the acute hospital.

## MANAGEMENT OF PATIENTS PRESCRIBED METHOTREXATE ON INPATIENT WARDS

### Management on admission of a patient on oral methotrexate

When a patient is admitted on oral methotrexate the following actions must be taken by the admitting doctor:

- Ask to see the patient's monitoring booklet (if they have one) and check if any dose changes have been made since the last prescription was issued. If this is not available efforts should be made to get relatives to bring it in from home.
- Confirm the strength and number of tablets the patient takes but prescribe as the **total dose**, not the number of tablets.
- Prescribe once a week, confirm day of week of administration and enter this on the prescription chart.
- Ensure that the other days of the week are crossed out on the administration section of the drug chart.
- Check folic acid. This is usually given once a week on the day following the methotrexate dose. This may not always be the case but it **must not** be given on the same day as the methotrexate.

- If there are any queries or concerns contact the clinic or GP to discuss. If the patient is admitted over the weekend and there are concerns, do not prescribe the methotrexate but ensure the patient's team are made aware of any issues so that they can follow them up.

### **Ongoing management of a patient prescribed methotrexate by the inpatient team doctor**

The inpatient team doctor must check with the patient's GP or clinic if any monitoring will be required while the patient is in hospital and ensure that this monitoring is arranged and undertaken and any results acted on ( with support or advice form the GP/Clinic as appropriate).

If a patient taking methotrexate develops an infection, cessation of methotrexate and appropriate antimicrobial therapy is usually necessary. Seek advice from specialist clinic overseeing prescribing if this occurs.

The team doctor must monitor the patient to identify any signs and symptoms of toxicity (see above Key duties: All staff)

The team doctor must be aware of any potential interactions with methotrexate and any new medication they may consider prescribing e.g. NSAIDs. Please refer to latest BNF or Summary of Product Characteristics for complete list of interacting drugs.

### **Clinical validation of methotrexate prescription by the ward pharmacist**

The ward pharmacist (where available) will check that the prescription has been written correctly and clearly stating the day of administration and that the other six days are crossed out on the administration side of the prescription chart (see example below). The ward pharmacist will also check that folic acid has been prescribed where appropriate.

<b>Drug and dose</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>	<b>Sun</b>
Methotrexate 10mg	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

### **Dispensing of methotrexate by Pharmacy**

Ensure that the prescription has been written correctly and clearly.

Prior to dispensing any methotrexate, check if the patient's own supply is being used. If so, do not dispense any further medication.

If the patient's own supply is not on the ward, only dispense a single weekly dose at a time. Confirm the number and strength of tablets the patient usually takes.

### **Administration of methotrexate by Nursing staff**

When administering methotrexate nursing staff must:

- Check the day of the week that methotrexate is to be given
- Ask the patient to confirm that the medicine is due. The patient should previously have been educated to challenge if what they are dispensed or administered differs from what they usually take although they may not be able to do so because of their mental/physical state.

Administration of methotrexate must be checked by a second practitioner.

Both practitioners involved in administration must sign chart immediately after administration to avoid a second dose being given inadvertently

## Training requirements associated with this Guideline

### Mandatory Training

There is no mandatory training associated with this guideline.

### Specific Training not covered by Mandatory Training

Ad hoc training sessions based on an individual's training needs as defined within their annual appraisal or job description.

## How this Guideline will be monitored for compliance and effectiveness

The table below outlines the Trusts' monitoring arrangements for this document. The Trust reserves the right to commission additional work or change the monitoring arrangements to meet organisational needs.

Aspect of compliance or effectiveness being monitored	Method of monitoring	Individual responsible for the monitoring	Monitoring frequency	Group or committee who receive the findings or report	Group or committee or individual responsible for completing any actions
Duties	To be addressed by the monitoring activities below.				
Prescribing and administration of oral methotrexate	Review of incident reports	Medical Director	Quarterly	Medicines Safety Group	Medicines Safety Group
Where a lack of compliance is found, the identified group, committee or individual will identify required actions, allocate responsible leads, target completion dates and ensure an assurance report is represented showing how any gaps have been addressed.					

## Equality considerations

The Trust has a duty under the Equality Act and the Public Sector Equality Duty to assess the impact of Guideline changes for different groups within the community. In particular, the Trust is required to assess the impact (both positive and negative) for a number of 'protected characteristics' including:

- Age;
- Disability;
- Gender reassignment;

- Marriage and civil partnership;
- Race;
- Religion or belief;
- Sexual orientation;
- Pregnancy and maternity; and
- Other excluded groups and/or those with multiple and social deprivation (for example carers, transient communities, ex-offenders, asylum seekers, sex-workers and homeless people).

The author has considered the impact on these groups of the adoption of this Guideline and does not believe that there are any specific equality considerations that need to be taken into account.

### Harvard Reference Guide

1. National Patient Safety Agency (2004) *Patient safety alert 03: Reducing the harm caused by oral methotrexate*, National Patient Safety Agency, Available from: [www.nrls.npsa.nhs.uk](http://www.nrls.npsa.nhs.uk)

2. National Patient Safety Agency (2006) *Patient Safety Alert13: Improving compliance with oral methotrexate guidelines* .National patient safety agency Available from: [www.nrls.npsa.nhs.uk](http://www.nrls.npsa.nhs.uk)

3. National Patient Safety Agency : Methotrexate treatment Update 2006

- Oral methotrexate pre-treatment patient information leaflet
- Patient-held blood monitoring and dosage record booklet

Available from: <http://www.nrls.npsa.nhs.uk/EasySiteWeb/getresource.axd?AssetID=60033>

## Document control details

<b>Author:</b>	Michaela Cox Chief Pharmacist
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Version No.	Date Ratified/ Amended	Date of Implementation	Next Review Date	Reason for Change (eg. full rewrite, amendment to reflect new legislation, updated flowchart, minor amendments, etc.)
1.0	19.07.16	19.07.16	31.07.18	Review
2.0	11.09.18	01.11.18	30.09.20	Review