

Guideline for the use of oral methotrexate in hospitals.

Victorian Medication Safety Committee

The Victorian Medication Safety Committee has developed this guideline based on responses to a questionnaire of current practice in Victorian hospitals. In addition it draws from a NSW Health Department Information Bulletin No 93/31¹, the NHS Report: Building a safer NHS for patients² and an Institute for Safe Medication Practices (ISMP) Bulletin³.

“Methotrexate is a cytotoxic and immunosuppressant drug that is not commonly prescribed outside the specialist areas of oncology, dermatology and rheumatology. Low-dose oral methotrexate for psoriasis or rheumatoid arthritis is prescribed for once a week administration, and care is often shared between GPs and hospital consultants. Prescribing, dispensing and administration errors have led to inappropriate daily dosing with methotrexate, resulting in a number of fatalities².”

The guideline has been developed outlining recommended areas of responsibility

DRUG COMMITTEE FOCUS:

- Ensuring the adoption of a suitable guideline for safe administration of oral methotrexate.
- Methotrexate should be included in a list of high alert medications that may be used for education of all staff.
- Education about methotrexate prescribing, dispensing and administration should be included in orientation of new medical, pharmacy and nursing staff.
- Education about methotrexate prescribing, dispensing and administration should be included in pharmacy bulletins and other publications.
- Patient education about methotrexate weekly dosing should be supported with printed information and a medication list as appropriate
- Incident reports relating to erroneous methotrexate prescribing and administration should be used as an educational tool with feedback to prescribers, pharmacy and nursing staff.

PRESCRIBING:

- When a weekly dose of methotrexate is prescribed the order should specify once weekly and the day of the week it is due
- Do not choose Monday as the administration day. Mane can be confused with Mon (for Monday) if the writing is unclear.
- The administration section of the drug chart should be marked to block out the other days of the week and highlight when it is due.
- Nursing staff responsible for that patient’s care should be advised by the prescriber that the dose is once weekly

NURSING STAFF

- Any questions or confusion regarding methotrexate orders must be referred to the prescriber or pharmacist for clarification.

PHARMACY:

- Pharmacy Departments should consider stocking just one strength (2.5mg not 10mg) of methotrexate tablets to avoid dispensing errors. If more than one strength is stocked product arrangement, warning signs and shelf labelling should be utilised to minimise the risk of the wrong strength being selected.
- Methotrexate should not be available through imprest or after hours cupboards
- A patient's own supply of methotrexate should not be used to administer methotrexate.
- Methotrexate should be dispensed and each dose should be verified by a pharmacist before administration.
- All medication charts should be checked by a pharmacist prior to administration of methotrexate to ensure the clarity of the order and that days when the drug is not to be administered are scored out.
- The pharmacy staff should only supply the exact dose of methotrexate required on the day a dose is due.
- When methotrexate is dispensed it should be clearly labelled to specify the exact dose and the day of the week it is due.
- Methotrexate should be clearly labelled with a cytotoxic warning label.
- All patients receiving methotrexate should be counselled by a pharmacist who should:
 - Provide an information sheet,
 - Emphasise the potential toxicity of the drug and
 - Stress the importance of understanding about weekly dosing.

Other considerations that may not be feasible at a hospital level include:

- The availability of commercial packaging of methotrexate for weekly dosing (as is available the USA) should be investigated.
- Use of an alert warning on all packs of methotrexate "BEWARE – ENSURE WHETHER THIS MEDICINE IS INTENDED FOR DAILY OR WEEKLY ADMINISTRATION"
- Electronic prescribing may assist in the reduction of errors in the prescribing, dispensing and administration of methotrexate provided that the computer software incorporates appropriate safeguards.

1. Administration of methotrexate tablets in public hospitals. NSW Health Department, Information Bulletin No 93/31.
2. Building a safer NHS for patients. NHS Department of Health, United Kingdom, April 2004.
3. Institute for Safe Medication Practices (ISMP), Medication Safety Alert December 2002.

July 2004.