Guidelines for clinicians on the administration and safe handling of parenteral methotrexate in secondary and primary care

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.
Contents:

1. Introduction ............................................................................................3
2. Preparation and dispensing ..................................................................3
3. Patient education and training ..............................................................3
4. Practitioner training and competency ..................................................4
5. Administration ........................................................................................4
6. Disposal ..................................................................................................5
7. Accidental Spillage ................................................................................5
8. Accidental Contamination .....................................................................5
9. Contact Telephone Numbers ..................................................................5
1. **Introduction**

The handling of the cytotoxic drug Methotrexate is recognised as being potentially hazardous, as it has been shown to be carcinogenic and teratogenic. Methotrexate is an irritant, which makes it dangerous to handle if proper precautions are not taken. Patients referred for parenteral methotrexate will have failed on oral methotrexate due to gastrointestinal side effects, or lack of efficacy via the oral route.

2. **Preparation and dispensing**

The pharmacy departments at the Royal Gwent and Nevill Hall hospitals have designated areas within the pharmacy aseptic units where cytotoxic drugs are reconstituted. The cytotoxic drug is then dispensed in a sealed syringe, which is packed in tamper proof, clear wrapping and dispatched in a jiffy bag to the rheumatology day unit or appropriate health centre. The outer container used for transportation will be clearly marked: “CYTOTOXIC HANDLE WITH CARE”. A cytotoxic sharps bin will also be dispensed from the rheumatology department on commencement of treatment.

Patient screening, assessment and monitoring will be carried out in accordance with the Gwent Shared Care Protocol for Parental Methotrexate for Rheumatoid Arthritis. Patients electing to self-administer at home will have a pre-counselling session, competencies will be assessed and written consent will be obtained. Methotrexate syringes will be delivered to the patient’s surgery or home. Blood monitoring will be done at the patient’s surgery as per the agreed Shared Care Protocol.

3. **Patient education and training**

The patient must be well informed about the treatment, and should have been provided with both verbal and written information about Methotrexate. The patient must give written consent prior to commencement of treatment. Patients may elect to self-administer methotrexate injections provided they undertake the necessary training. Patients should be aware of their responsibilities when giving methotrexate injections. This should include:

- Consent to participation in a training programme, and be prepared to demonstrate that they are competent in the safe administration of subcutaneous methotrexate (if self-administering).
4. Practitioner training and competency

- Practitioners should be trained in the management of patients with inflammatory arthritis receiving methotrexate.
- Practitioners should be knowledgeable and competent in all aspects of methotrexate administration and risk management strategies for cytotoxic therapies.
- Practitioners should have undertaken appropriate training to educate, support and teach patients in self-administering in their own homes.
- Practitioners should ensure appropriate communication and support are available for primary health care teams and patients self-administering in their own homes.
- Practitioners should be aware of clinical governance and local organisation policies in relation to management of patients receiving methotrexate.
- Documentation and audit should be integral to the service for patients receiving parenteral methotrexate.

5. Administration

- Wear gloves and a plastic disposable apron, to protect from local contamination. There is no need to dispel the small amount of air from a pre-filled syringe with a leur lock system, as it is not harmful to the patient and is rapidly absorbed in the subcutaneous tissues. If practitioners adhere to the procedures set out in these guidelines, the use of goggles or masks will not be required.
- Prepare equipment taking care not to expel any of the contents of the syringe. Ensure all patients' details are checked as correct with the patient's prescription before administering the injection.
- Check that the contents of the syringe are a clear yellow fluid. If any particles or cloudiness is present do not give the injection and contact advice line or pharmacy.
- Do not swab the skin prior to injecting if the skin is socially clean.
- Insert the injection at a 90-degree angle combined with the use of the skin pinch.
- Administer the injection into the subcutaneous tissue or by deep intramuscular injection.
- There is no need to aspirate prior to injection.
• Apply firm pressure to injection site with sterile cotton wool ball for 1-2 minutes. Do not rub.
• Injection sites should be rotated.
• Co-administration of subcutaneous biologic therapies can be undertaken provided appropriate site rotation is adhered to.

6. Disposal

Sharps (syringes and needles), dry waste and other contaminated material such as gloves and aprons must be placed in a cytotoxic sharps bin for collection as per the organisational policy.

7. Accidental Spillage

Patients will be supplied with a disposable apron and gloves prior to commencement of parental methotrexate. In the event of a spill the following advice should be observed: Acting promptly and wearing a protective disposable apron and gloves, mop up with absorbent wipes or paper towels, wash surfaces well using copious amounts of cold soapy water and dry with paper towels or absorbent wipes. All contaminated paper towels and wipes must be placed in the cytotoxic sharps bin. Repeat the process five times working from just outside the spillage into the central area. All protective clothing should be discarded in the cytotoxic sharps bin and sealed for collection and incineration.

8. Accidental Contamination

Contamination of skin, mucous membranes and eyes must be treated promptly. All affected areas must be washed with copious amounts of cold water.

9. Contact Telephone Numbers

An initial cytotoxic sharps bin will be provided by the rheumatology department following completion of competencies assessment with the rheumatology nurse. To arrange collection and delivery of a new cytotoxic sharps bin contact: 01495745656. When making a request for collection you will need to state that the sharps bin is cytotoxic (purple lid), and the size (printed on side of bin e.g. 5 litre), number of bins to be collected, also frequency of collection which will be as and when required.

For further advice and/or information please contact:

For Nevill Hall Hospital:
Pharmacy - 01873 732279
These guidelines must be used in conjunction with:

Aneurin Bevan Health Board Policy for the Safe Handling of Cytotoxic Drugs.
Gwent Shared Care Protocol for Parenteral Methotrexate for Rheumatoid Arthritis.


To obtain a copy contact the RCN Tel: 020 7409 3333. Publication code 002 269.