Recommendations for the storage, administration and disposal of subcutaneous methotrexate in the community

Statement of Purpose

Following training, most patients in the community will self-administer their methotrexate injections. These recommendations aim to provide information on safe handling of methotrexate for primary care staff involved in administering subcutaneous methotrexate injection in the community.
There are two licensed formulations of methotrexate subcutaneous injection stocked at STH for treating conditions covered by the guidelines: Metoject® (methotrexate 50mg/ml) pre-filled pens and Nordimet® (methotrexate 25mg/ml) pre-filled pens.

Storage

The patient should be advised regarding the safe and appropriate storage of the injections in accordance with manufacturer's guidance. The methotrexate injections must be stored below 25 degrees Celsius, out of the reach of vulnerable adults, children and pets and protected from light. Alternatively, the injections may be stored at the GP practice in a locked cupboard. There must be a cytotoxic waste bin (purple) at the site where injection will take place.

Administration

Methotrexate should not be administered by pregnant or breast feeding staff. This should be made clear on the practice computer system and in the patients care plan (where available). E.g. 'Not to be administered by staff who are pregnant or breast feeding'.

If a third party is administering the pre-filled pens then gloves should be worn. Other protective clothing is not a necessity; however staff should make a judgement as to what additional protective clothing they should use on an individual basis by carrying out a local risk assessment.

As methotrexate can cause blood dyscrasias and pulmonary toxicity, prior to administration the patient should be asked if they have experienced breathlessness, a dry or productive cough, fever, mouth ulcers, nausea or any overt signs of infection. The injection should be withheld and medical advice sought if any of these have occurred.

Prior to administration the nurse should also check:

- Signs of side effects
- The latest blood results are within the required time scale and in range (see monitoring section 9 of methotrexate SCP)
- Preparation prescribed
- Strength and size of prefilled pen
- Dose to be administered – volume and strength
- Expiry date
- Batch number
- Date of administration (methotrexate should be administered on the same day each week)
- Route and method of administration (check SPC - reference below)
- Patient consent to injection

All this information should then be recorded in the patient's medical record.

The Guidance from the RCN https://www.rcn.org.uk/Professional-Development/publications/administering-subcutaneous-methotrexate-for-inflammatory-arthritis-uk-pub-009-675 advises:

- It is not necessary to swab the skin prior to injecting if the skin is socially clean
- Administer the injection into subcutaneous tissues in the thigh or stomach
- Injection sites should be rotated

The Metoject® or Nordimet® pre-filled pen instructions for administration should be followed, according to which brand has been prescribed.
See link for supporting information regarding Metoject® injection

See link for supporting information regarding Nordimet® injection

Spillage

The risk of spillage is low due to the use of pre-filled pens and the small volumes used however;

- A cytotoxic (purple topped) waste bin should be available for disposal of any waste. If there is any surface leak out from the injection site, a little pressure should be applied to the area which should then be wiped using cotton wool or tissue and these should be disposed of in the purple topped box.
- If methotrexate comes in contact with the skin the area should be washed liberally with soap and cold water for several minutes.
- If methotrexate enters the eyes, they should be irrigated thoroughly with large amounts of saline or tap water for several minutes and medical advice sought if any side effects are experienced.
- Needle stick injuries should be managed in accordance with the local procedures.

All incidents should be reported in accordance with the local policy.

Disposal of cytotoxic waste

It is the prescriber's responsibility to ensure systems are in place to ensure safe disposal of any cytotoxic waste.

- All methotrexate pens and gloves must be disposed of in a purple sharps container. For home use, these are prescribed on an FP10 as: Purple lidded 3 or 5 Litre cytotoxic waste bins. It may be cheaper to purchase from a community pharmacy if the patient pays a prescription charge.The sharps container should be kept closed until two thirds full when it should then be locked and, where patient is self-administering, returned to the GP practice.
- If patients are also receiving biologic therapy for their rheumatoid arthritis (which is delivered to patients via home care delivery companies) then prescribers may be able to organise delivery of the methotrexate via the home care company as well. In these cases the company will safely remove the sharps bins from the patients' home.

Risk management

Practitioners should undertake a thorough risk assessment and prepare a risk management strategy. Staff dealing with the SC methotrexate should be aware of COSHH regulations and undertake appropriate health and safety training.

References

- RCN Clinical Professional Resource: Administering SC methotrexate for inflammatory arthritis. 4th edition October 2021 https://www.rcn.org.uk/Professional-Development/publications/administering-subcutaneous-methotrexate-for-inflammatory-arthritis-uk-pub-009-675
- Metoject® summary of product characteristics (SPC) http://www.medicines.org.uk/emc/medicine/28982
- Nordimet® summary of product characteristics (SPC) http://www.medicines.org.uk/emc/medicine/33073

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