**INFORMATION BOOKLET FOR HEALTH CARE PROFESSIONALS**

***INFLIXIMAB MANAGEMENT OF RHEUMATOLOGICAL CONDITIONS IN DAY CASE SETTING***

**Full resuscitation facilities must be available at the point of administration**

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# **Summary Guidelines for the administration of Infliximab for rheumatological conditions**

Infliximabis a genetically engineered monoclonal antibody which acts by binding and inhibiting TNFα and reducing inflammatory cells. It is therefore use to reduce inflammation in a range of chronic inflammatory conditions such as rheumatoid arthritis and Crohn’s disease.

In rheumatological conditions, infliximab may only be initiated by a Rheumatology Consultant who will ensure each patient meets the appropriate funding criteria prior to initiation.

Ensure the patient has been fully counselled, has attended for pre-treatment screening and approval has been given to proceed with treatment before prescribing infliximab.

**Cautions and Contraindications**

Infections such as tuberculosis and hepatitis B should be excluded prior to initiation and patients should not be given infliximab if they are feeling unwell or have recently come in to contact with any infections.

Infliximab is contraindicated in severe heart failure (New York Heart Association Class III or IV); ensure no newly diagnosed conditions following consultant decision to initiate.

Live vaccines should not be given during treatment and up until 6 months after the last dose of the infliximab. Any non-live vaccinations which are required should be given at least four (ideally six) weeks prior to commencing a course of rituximab.

Women of childbearing potential should be informed that they must use effective contraception during infliximab treatment. Infliximab is not recommended in pregnancy and breastfeeding although a limited number of normal pregnancies have occurred in women taking infliximab but treatment must be stopped by 16 weeks gestation. Any plans to become pregnant should be discussed with the consultant. Infliximab is not known to affect fertility.

**The prescription**

**Note that infliximab must be prescribed by brand – please check which brand the patient has previously received and ensure they receive the same brand each time. The brand of infliximab used must be documented on the discharge prescription. Patients may only switch brand if specifically agreed by their Rheumatology Consultant.**

Ankylosing spondylitis

5 mg/kg given as an intravenous infusion followed by additional 5 mg/kg infusion doses at 2 and 6 weeks after the first infusion, then every 6 to 8 weeks.

Psoriatic arthritis

5 mg/kg given as an intravenous infusion followed by additional 5 mg/kg infusion doses at 2 and 6 weeks after the first infusion, then every 8 weeks thereafter.

Rheumatoid arthritis

3 mg/kg given as an intravenous infusion followed by additional 3 mg/kg infusion doses at 2 and 6 weeks after the first infusion, then every 8 weeks thereafter.

It has been agreed that the dose of infliximab can be ‘dose banded’ (rounded up or down) to the nearest full vial (100mg) provided the amount added or deducted does not exceed 10% of the dose given.

Infliximab must be given concomitantly with methotrexate in rheumatoid arthritis.

Available data suggest that the clinical response is usually achieved within 12 weeks of treatment. If a patient has an inadequate response or loses response after this period, consideration may be given to increase the dose step-wise by approximately 1.5 mg/kg, up to a maximum of 7.5 mg/kg every 8 weeks. Alternatively, administration of 3 mg/kg as often as every 4 weeks may be considered. If adequate response is achieved, patients should be continued on the selected dose or dose frequency. Continued therapy should be carefully reconsidered in patients who show no evidence of therapeutic benefit within the first 12 weeks of treatment or after dose adjustment.

**Pre-medications – only if considered appropriate (see below)**

If a patient has experienced an infusion reaction with infliximab previously of has a history of allergic reactions, it may be appropriate to administer the following pre-medications

* Chlorphenamine 4mg orally
* Hydrocortisone 100 mg IV
* Paracetamol 1gram orally

**Nursing requirements – prior to infusion**

A clinic list is faxed to aseptics (5816) **one week in advance**, to ensure sufficient stock is available

* Fill in the patient’s details in the top section of the prescription form including drug allergies (available from ‘pharmacy intranet – rheumatology-Remicade or Remsima prescription’)
* Ensure correct brand of infliximab is selected (review shared Aseptic-rheumatology folder on J drive)
* Take and record temperature, pulse, blood pressure and respirations as baseline (full EWS)
* Take bloods (FBC, U&E and LFTs) and send to the pathology lab
* When the prescription form has been completed by the doctor/prescriber, fax to aseptics (5816) and call 5488 to confirm receipt
* Ensure venflon is inserted

**Clerking doctor (specialist nurse) requirements**

* Read last clinic letter, last infusion letter and any subsequent clinical letters IN FULL before screening the patient. Ensure it is clinically appropriate for the patient to receive the drug and that the listing is appropriate
* Review the patient and ensure they are fit to receive infliximab
* Complete the prescription form (brand specific) by filing in the patient’s blood results, diagnosis, treatment history and current medication (bloods from the last 60 days are acceptable)
* Fill in the pre-infusion checklist and contact the consultant for advice if any of the criterion are not met
* Check the medication details and sign the prescription form in the relevant boxes for the flush and infliximab infusion
* Establish whether the patient has experienced infusion-related reactions previously, if so administration of pre-medications may be appropriate

**Administering the infusion**

Infliximab must be administered IV over a 2 hour period (unless on accelerated regimen) and patients must be observed for 1-2 hours afterwards for infusion related reactions.

Infusions can be given more rapidly only after 3 initial 2 hour infusions have been well tolerated previously. Rapid infusions must be given over at least one hour for doses under 6mg/kg only.

Due to the risk of anaphylaxis, patient’s receiving infliximab should be supervised by a member of staff at all times during the infusion.

**Observations**

Blood pressure, pulse, temperature and respiration rate should be measured

and documented

* **Every 30 minutes** during the infusion
* **Immediately prior** to increasing the infusion rate
* **During the post infusion observation** (venflon to remain in situ).

**Infusion reactions**

All infusion reactions must be documented in the notes and on the prescription chart. Severe reactions should be added to the patient’s Advantis record and a MHRA yellow card should be completed.

**Anaphylaxis**

Most anaphylactic reactions have been noted during the early minutes of the infusion.

**STOP THE INFUSION IMMEDIATELY**, **fast bleep a** **doctor** and treat symptomatically according to anaphylaxis policy

**Moderate to severe reactions**

ie fever >38.5ºC; chills; mucosal swelling; hypoxia, bronchospasm, shortness of breath; hypotension by >30mmHg from baseline

**STOP THE INFUSION IMMEDIATELY, contact a doctor** and treat symptomatically with appropriate ‘as required’ medications**.**

**Mild to moderate reactions**

ie low grade fever or hypotension <30mmHg from baseline;

**When required medications**

* Chlorphenamine 10 mg IV TDS
* Hydrocortisone 100 mg IV TDS
* Paracetamol 1gram orally 4-6 hourly (max 4 gram in 24 hours)

The infusion may be restarted at **a lower rate** (ie 10mL/h) 30 minutes after a patient’s symptoms have fully resolved following a discussion with the consultant. If a severe reaction is experienced for a second time, the decision to stop treatment should be considered. Patients with anaphylaxis should not receive subsequent doses.

**Anticipated side effects**

The elimination of infliximab can take up to six months, therefore the increased risk of infections can persist for this time.

Hypersensitivity reactions are more common in patients who have not received an infusion for > 1 year.

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| **Type** | **Common (>1%)** | | **Uncommon (<1%)** |
| Infections | URTI, influenza, cellulitis, viral infections | Meningitis, TB | |
| Haematological | Neutopenia, leucopenia, anaemia | Agranulocytosis, thromocytopenia | |
| Cardiovascular | Tachycardia, palpitations | Cardiac failure, arrhythmia | |
| Gastrointestinal | Abdominal pain, nausea | Pancreatitis | |
| Musculoskeletal | Arthralgia, myalgia, back pain |  | |
| Respiratory | Sinusitis | Pulmonary odema | |
| Dermatological | Urticaria, rash, pruritus | Toxic epidermal necrolysis | |
| Miscellaneous | Depression, insomnia, dizziness | Analphylaxis | |

**Post infusion**

* Remove venflon once the observation period of 30 minutes is completed
* Advise the patient to seek medical help if they have any symptoms that could be due to an infection (eg fever) in the hours or days after the infusion
* Ensure patient has Biologics Alert Card to carry with them (additional supplies available from aseptics)
* Patients can be informed that a response is usually observed 12 weeks after the infusion

Please ensure details of any comorbidities, infusion reactions, the brand administered and the maximum rate of infusion reached is documented on the HCR.

## References

Cheifetz A., Smedley M., Martin S., Reiter M. etal.The Incidence and Management of Infusion Reactions to Infliximab: A Large Center Experience. The Journal of Rheumatology July 1, 2015 vol. 42 no. 7 1105-1111