Aim of protocol
To ensure the safe intravenous administration of Infliximab (Remicade) to patients for the treatment of IBD (Crohn’s Disease and Ulcerative Colitis).

Patient Groups
1. Infliximab within the licensed indications, is recommended as treatment options for adults with severe active Crohn’s disease (CD) whose disease has not responded to conventional therapy (including immunosuppressive and/or corticosteroid treatments), or who are intolerant of or have contraindications to conventional therapy. Infliximab should be given as a planned course of treatment until treatment failure (including the need for surgery) or until 12 months after the start of treatment, whichever is shorter. People should then have their disease reassessed to determine whether ongoing treatment is still clinically appropriate.

2. Infliximab within its licensed indication, is recommended as a treatment option for people with active fistulising CD whose disease has not responded to conventional therapy (including antibiotics, drainage and immunosuppressive treatments), or who are intolerant of or have contraindications to conventional therapy. Infliximab should be given as planned course of treatment until treatment failure (including the need for surgery) or until 12 months after the start of treatment, whichever is shorter. People should have their disease reassessed to determine whether ongoing treatment is still clinically appropriate.

3. For the purposes of this guidance, severe active CD is defined as very poor general health and one or more symptoms such as weight loss, fever, severe abdominal pain and usually frequent (3-4 or more) diarrhoeal stools daily. People with severe active CD may or may not develop new fistulae or have extra-intestinal manifestations of the disease. This clinical definition normally, but not exclusively, corresponds to a Crohn’s Disease Activity Index (CDAI) score of 300 or more, or a Harvey-Bradshaw score of 8 to 9 or above.

Sub-acute manifestations
This guidance relates only the use of infliximab within its marketing authorisation, for the treatment of acute exacerbations of severely active ulcerative colitis (UC). It relates to an induction course of three doses of infliximab.

Note: Infliximab is not recommended for the treatment of sub-acute manifestations of moderately to severely active UC.
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Acute exacerbations
Infliximab is recommended as an option for the treatment of acute exacerbations of severely active UC only in patients in whom ciclosporin is contraindicated or clinically inappropriate based on a careful assessment of the risks and benefits of treatment in the individual patient. Its use is restricted in line with NICE TA163 and used in three doses for hospitalised patients (0, 2 and 6 week).

For patients that do not meet the criterion for acute exacerbations, Infliximab should only be used for the treatment of acute exacerbations of severely active UC in clinical trials.

Before prescribing Infliximab, it is the responsibility of the prescriber to ensure that:

1. The therapy is appropriate
2. The patient has received comprehensive counselling about the risks and benefit’s of the drug and that this documented in the patients notes
3. That the patient fits the above clinical situation
4. The appropriate form has been completed for funding and submitted to Pharmacy funding team (medicine.funding@sash.nhs.uk)

Exclusion Criteria for Infliximab
- Current sepsis or infection
- Abscess (if unsure, CT Abdo, USS or CT to exclude)
- Pregnancy or Breastfeeding
- Previous sensitivity to Infliximab
- Moderate to severe heart failure
- Tuberculosis (TB) Active and latent

Note: caution must be taking when considering treatment with Infliximab in patients with known stricturing disease.
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Pre- infusion screening at baseline

1. **Tuberculosis (gastroenterology team at baseline)**
   - Full TB History (Check family history, travel history and profession)
   - Please see attached proforma (Appendix 1)
   - Chest x-ray prior to starting treatment
   - Local patients: Please refer to TB Nurses at Crawley hospital ext 3025
   - Tertiary patients: Please ask GP to refer to local TB service for TB screening (mantoux or other TB test available locally)

2. **Routine blood test (gastroenterology team at baseline)**
   The following should all be completed prior to starting Infliximab:
   - HIV serology
   - Hepatitis B and C serology
   - VZV serology
   - Herpes simplex virus (HSV)
   - Recent FBC, U&E, LFT, ESR and CRP

**Blood test to be checked prior to each Infliximab infusion during nursing assessment**
   - FBC (Hb, neutrophils and platelets)

*Note: no specific dose recommendation is required for impaired renal or hepatic function as no studies have been carried out in these patient groups. Overall monitoring will be the responsibility of the lead gastroenterology consultant.*

**Vaccinations**
Please check the patient’s vaccination history prior to starting Infliximab.
However, the gastroenterology team at Surrey and Sussex Healthcare NHS Trust will not necessarily vaccinate patients. This is communicated to patients prior to initiating treatment.

Prescriber must confirm vaccination history
- No live vaccines in the last four weeks
- VZV varicella vaccine (if there is no medical history of chicken pox, shingles or VZV vaccination)
- Human papilloma virus
- Influenza (trivalent inactivated vaccine) once a year
- Pneumococcal polysaccharide vaccine (3 years)
- Hepatitis B vaccine in all HBV seronegative patients
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Prescribing and Approval for Funding

Prescriber Information
Infliximab can be prescribed by a consultant Gastroenterologist, or following discussion with a Consultant Gastroenterologist. In keeping with trust policy, approval for funding for Infliximab must be obtained by submitting to Pharmacy funding team (medicine.funding@sash.nhs.uk).

Approval for funding
Please see BLUETEQ for funding requests for Infliximab for CD & UC.

Treatment and Dosage
This guide relates to the use of Infliximab for IBD within SASH. The drug is provided by Merck Sharp & Dohme (MSD) under the trade name REMICADE. The drug must be administered as defined by the manufacturer, and according to these guidelines.

Drug
Infliximab is a chimeric (human-mouse) anti-TNF Monoclonal antibody.

Dosage
Pre-printed administration charts are available for the treatment of IBD.

All patients are pre medicated with intravenous hydrocortisone 100mg and chlorphenamine 10mg.

Standard dose of infliximab for IBD is 5mg/kg at week 0, week 2 and week 6, followed by maintenance regimen if there is a positive response (normally 5mg/kg every 8 weeks). Response to treatment is assessed (as per protocol) and reviewed in MDT meetings.

If loss of response to Infliximab other options are
- Discussion in benign Gastroenterology Multidisciplinary Meeting for consideration for Individual Funding request form (IFR). The form needs to be submitted to Pharmacy funding team (medicine.funding@sash.nhs.uk).
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Administration

Infliximab is prepared as per manufacturer’s guidelines and given in 250mls of sodium chloride 0.9% as detailed below. Infliximab must be given with an intravenous giving set and 1.2 micron filter via an infusion pump.

Infusion for week 0 to week 4 (number 4): Infuse over 2 hours and observe for 2 hours post infusion

Vital observations - temperature, blood pressure, oxygen saturations, pulse and respiratory rate every 15 minutes for the 1st hour and every 30 minutes for the 2nd hour. Hourly observations for 2 hour post infusion.

Infusion for number 5 to 8: Infuse over 1 hour and observe for 1 hour post infusion

Observations every 30 minutes over 1 hour. Observe for 1 hour post infusion with 1 further set of observations.

Infusion number 9+: Infuse over 30 minutes and observe for 30 minutes post infusion (BUCH et al 2006, Clare et al 2009)

Observations every 15 minutes for 30 minutes. Observe for 30 minutes post infusion with 1 further set of observations.

Intravenous access must remain in-situ for each patient for the appropriate post infusion period.

Indication for reduced infusion

A reduced infusions time of 1 hour is now licensed for IBD (MSD 2013).

- Patients who have tolerated at least 4 Infliximab infusions over 2 hours without any hypersensitivity or delayed hypersensitivity reaction

Exclusion Criteria Reduced Infusion

- Patients who have less than 4 previous Infliximab infusions
- Patients who have previous infusions at a hospital other than SASH trust
- Patients who have either hypersensitivity or delayed hypersensitivity reaction including those who tolerated subsequent infusions
- Patients with known cardiac history
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

**Infliximab can be administered in the Chemo Suite, on Comet ward at Crawley hospital and on Charlwood ward at SASH.**

All areas have access a crash trolley, equipped with oxygen, suction and emergency medications. Adequate phone access is also available in these areas.

**Staff administering Infliximab**
The following training must be completed for staff to administer these medications (as per trust IV policy)

1. Intravenous drug administration (following trust policy)
2. Advance life support (ALS)
3. Anaphylaxis training

Administration of the therapy must be carried out by nurses trained and competent in the administration of intravenous therapy, and knowledgeable about the drug therapy.

**Nursing Assessment**
Written consent is obtained by the IBD nurses for all patients receiving infliximab (SASH consent form).

The accredited nurse will assess each patient prior to each infusion. This assessment includes:

1. Vital Observation (Blood pressure, pulse, oxygen saturations, respirations and temperature)
2. BMI: Weight and Height
3. Bloods: FBC (Hb, neutrophils and platelets)
4. Contraindications/side effects to treatment
5. Current infections
6. Current medication and allergies
7. Current symptoms including both HBI or SCCAI and PDAI (fistulating disease)
8. Photography of fistulating disease
9. Review of any recent investigations
10. The above assessment is completed using proforma (see Appendix 1)

Note: bloods (U&E’s, LFT’s, C-RP, ESR) will monitored by the gastroenterology team as part the disease evaluation and not during nursing assessment (i.e. prior to each nurse’s assessment).
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Infusion reaction
All infusion reactions will be dealt with according to the Infusion reaction protocol (Refer to appendix 3). Patients who have Infliximab over 1 hour and have an adverse reaction will return to 2 hourly infusions.

Documentation
All patients will have a completed proforma and observation sheet (held by the IBD Nurses). Written evidence of Infliximab administration is recorded in the patient’s medical notes (MDT notes).

Ongoing monitoring
The above nursing assessment and monitoring is repeated for every admission for Infliximab by the nursing staff.

Out patients Follow-Up
All patients receiving Infliximab will be reviewed in out patients’ clinic after every 3rd infusion, to document response to treatment, correspond with the patients GP, and determine ongoing management.

IBD MDT
This meeting occurs weekly and is attended by Consultant Gastroenterologists and the IBD nurse(s).

The aim of this meeting is to discuss each patient (case review) receiving biologics (Infliximab & Adalimumab).

The aim of this MDT is to;
• Review patients progress on treatment
• Monitor tolerance, side effects and use of concomitant immunosuppressant’s
• Plan for re-investigation of disease & ongoing need for therapy (in keeping with NICE 2010, which suggests a review at 12 months)
• Confirm CCG funding status and re-apply to the relevant PCT for funding if needed

This activity for the biological MDT is recorded in the patient’s medical notes. The IBD nurse may call each patient following their case review to inform them of the outcome. A letter is generated for each patient and sent to GP and CCG (if indicated) for update on patient’s progress on biologics. A 12 month review will be completed as necessary. This will be sent to patients CCG.
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

References:


Appendix 1 - Infliximab Infusion – nurse’s assessment

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<td>- Platelets &gt;150</td>
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**Comments**

*Note: bloods (U&E’s, LFT’s, C-RP, and ESR) will monitored by the gastroenterology team as part the disease evaluation and not during nursing assessment (i.e. each pre-infusion assessment).*
Guideline for the use of Infliximab (Remicade ®) in patients with Inflammatory Bowel Disease (IBD)

Adapted for use at Surrey and Sussex Healthcare NHS Trust (SASH) from Brighton

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<thead>
<tr>
<th>Updated by</th>
<th>Ellen Kanyanta</th>
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<tbody>
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<td>Approved by</td>
<td>Wasifa Webb</td>
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<td>Date: 4th April 2014</td>
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<tr>
<td>Drug and Therapeutic Committee SASH</td>
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| Date Approved       | 4th April 2014               |
| Review Date         | 4th April 2017               |