National shared care protocol:

Leflunomide for patients within adult services

4 July 2022, Version 1

Review date – January 2025

**SWL Local Adaptation
March 2023**

Please follow link to local amendment regarding[Locally agreed off-label use](#_Locally_agreed_off-label)

* The word ‘normally’ under [section 5](#_Initiation_and_ongoing), first bullet point has been deleted: ‘Transfer to primary care is ~~normally~~ after the patient has been treated for 3 months and with satisfactory investigation results for at least 4 weeks.’ This is to highlight that transfer to primary care is after the patient has been treated for a minimum of 3 months and with satisfactory investigation results for at least 4 weeks. **The initial stabilisation period** **must be prescribed by the initiating specialist.**
* Amendment to [specialist responsibilities](#_Specialist_responsibilities) section bullet point 5
We have deleted ‘~~Prescribe the maintenance treatment for at least 4 weeks and until optimised~~’ and replaced with: ‘Transfer to primary care is after the patient has been treated for 3 months and with satisfactory investigation results for at least 4 weeks’. This is to highlight that transfer to primary care is after the patient has been treated for a minimum of 3 months and with satisfactory investigation results for at least 4 weeks. This is so we are consistent with the first bullet point above.
* To reiterate, as stated in [section 8](#_Baseline_investigations,_initial): ‘The specialist will retain the responsibility for monitoring the patient’s ongoing response to treatment and advise if a dose change or treatment cessation is appropriate. This should usually be undertaken annually. After each review, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#_Ongoing_monitoring_requirements) remains appropriate.’

Approved by: Integrated medicines committee (IMOC)

Approval date: 14th June 2023

Review Date: January 2025, as per NHS England

**The content of this shared care protocol was correct as of January 2022. As well these protocols, please ensure that**[**summaries of product characteristics**](https://www.medicines.org.uk/emc/)**(SPCs),**[**British national formulary**](https://bnf.nice.org.uk/)**(BNF) or the**[**Medicines and Healthcare products Regulatory Agency**](https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency)**(MHRA) or**[**NICE**](https://www.nice.org.uk/)**websites are reviewed for up-to-date information on any medicine.**

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| Specialist responsibilities* Assess the patient and provide diagnosis; ensure that this diagnosis is within scope of this shared care protocol ([section 2](#Two_indications)) and communicated to primary care.
* Use a shared decision making approach; discuss the benefits and risks of the treatment with the patient and/or their carer and provide the appropriate counselling (see [section 11](#Eleven_advice_to_patients)) to enable the patient to reach an informed decision. Obtain and document patient consent. Provide an appropriate patient information leaflet.
* Assess for contraindications and cautions (see [section 4](#Four_cx_and_cautions)) and interactions (see [section 7](#Seven_interactions)).
* Conduct required baseline investigations and initial monitoring (see [section 8](#Eight_specialist_monitoring)).
* Initiate and optimise treatment as outlined in [section 5](#Five_dosing). ~~Prescribe the maintenance treatment for at least 4 weeks and until optimised~~. Transfer to primary care is after the patient has been treated for 3 months and with satisfactory investigation results for at least 4 weeks.
* Once treatment is optimised, complete the shared care documentation and send to patient’s GP practice detailing the diagnosis, current and ongoing dose, any relevant test results and when the next monitoring is required. Include contact information ([section 13](#Thirteen_specialist_contact)).
* Prescribe the maintenance treatment until optimised, which will usually be after around 3 months. Prescribe sufficient medication to enable transfer to primary care, including where there are unforeseen delays to transfer of care.
* Conduct the scheduled reviews and monitoring in [section 8](#Eight_specialist_monitoring) and communicate the results to primary care. After each review, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#Nine_primary_care_monitoring) remains appropriate.
* Provide advice to primary care on the management of adverse effects if required.

Primary care responsibilities* Respond to the request from the specialist for shared care in writing. It is asked that this be undertaken within 14 days of the request being made, where possible.
* If accepted, prescribe ongoing treatment as detailed in the specialists request and as per section 5, taking into any account potential drug interactions in [section 7](#Seven_interactions).
* Adjust the dose of leflunomide prescribed as advised by the specialist.
* Conduct the required monitoring as outlined in [section 9](#Nine_primary_care_monitoring). Communicate any abnormal results to the specialist.
* Manage adverse effects as detailed in [section 10](#Ten_ADRs_and_Management) and discuss with specialist team when required.
* Stop leflunomide and discuss urgently with the specialist if the patient develops signs of serious infection, liver or respiratory disease, unexplained bleeding or bruising, are exposed to chickenpox or shingles, or becomes pregnant.
* Discuss with the specialist if the patient plans to become pregnant.
* Stop treatment as advised by the specialist.

Patient and/or carer responsibilities* Take leflunomide as prescribed and avoid withdrawal unless advised by the primary care prescriber or specialist.
* Attend regularly for monitoring and review appointments with primary care and specialist, and keep contact details up to date with both prescribers. Be aware that medicines may be stopped if they do not attend.
* Report adverse effects to their primary care prescriber. Seek immediate medical attention if they develop any symptoms as detailed in [section 11](#Eleven_advice_to_patients).
* Report the use of any over the counter medications to their primary care prescriber and be aware they should discuss the use of leflunomide with their pharmacist before purchasing any OTC medicines.
* Moderate their alcohol intake to no more than 4 units per week.
* Not to drive or operate heavy machinery if leflunomide affects their ability to do so safely.
* Patients of childbearing potential should use effective contraception during and for up to 2 years after treatment, and take a pregnancy test if they think they could be pregnant, and inform the specialist or GP immediately if they become pregnant or wish to become pregnant.
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| Background [Back to top](#Responsibilities) |
| Leflunomide is a conventional disease-modifying anti-rheumatic agent (DMARD). It exhibits anti-inflammatory and antiproliferative effects through the inhibition of pyrimidine synthesis via dihydroorotate dehydrogenase.It may be used as monotherapy or in combination with other DMARDs including methotrexate and sulfasalazine. The therapeutic effect usually begins after 4-6 weeks and benefit may accrue for up to 6 months.Leflunomide has a very long half-life of approximately 2 weeks, and in circumstances where rapid elimination is required a washout procedure may be given if advised by the specialist. This may be due to severe adverse effects, pregnancy, severe infection or if an alternative DMARD is indicated. Washout is typically given as colestyramine 8g taken three times daily or activated charcoal 50g four times daily, for up to 11 days. [See section 6](#Six_pharmaceutical) for further information. |
| Indications [Back to top](#Responsibilities) |
| Leflunomide is licensed for use in: * Rheumatoid arthritis
* Psoriatic arthritis

It may also be used off label for other inflammatory conditions including:* Rheumatology conditions (e.g. systemic lupus erythematosus, axial spondyloarthopathy)
* Interstitial lung disease
* Vasculitis

The specialist must specify the indication for each patient when initiating shared care and clearly state when use is off-label. |
| Locally agreed off-label use [Back to top](#Responsibilities) |
| The South West London Integrated Medicines Optimisation Committee recommended the use of this document for the indications as outlined above. The following information should be provided in correspondence to support prescribing in line with this shared care.* Dosing specific to the indication
* Relevant interaction information
* Any additional monitoring requirements over and above the shared care.
* Duration of treatment
* Frequency of review.
* Specific features of adverse effects or deterioration pertinent to the specific indication for which it is used
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| Contraindications and cautions [Back to top](#Responsibilities)This information does not replace the Summary of Product Characteristics (SPC), and should be read in conjunction with it. Please see [BNF](https://bnf.nice.org.uk/drugs/) & [SPC](https://www.medicines.org.uk/emc/) for comprehensive information. |
| **Contraindications:*** Hypersensitivity to leflunomide or any excipients
* Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption
* Serious infection
* Liver impairment
* Moderate to severe renal impairment
* Severe hypoproteinaemia
* Severe immunodeficiency
* Pregnancy and breastfeeding, or patients who are not using effective contraception during treatment. People of child-bearing potential should use effective contraception for up to 2 years after stopping treatment. Avoid where possible in people of child-bearing potential. See [section 12](#Twelve_pregnancy_paternity).

**Cautions:*** Anaemia: avoid if significant and due to causes other than rheumatoid or psoriatic arthritis.
* Localised or systemic infection which may be more severe
* History of HIV, tuberculosis, hepatitis B or C
* Impaired bone-marrow function, leucopenia, or thrombocytopenia: avoid if significant and due to causes other than rheumatoid or psoriatic arthritis.
* Use of concurrent haematotoxic or hepatotoxic DMARDs e.g. methotrexate
* There is a theoretical risk of male-mediated foetal toxicity so effective contraception should be used throughout treatment. Those patients wishing to father a child should discuss with the specialist who may want to follow the washout procedure before advising he attempt conception (see [section 6](#Six_pharmaceutical)).
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| Initiation and ongoing dose regimen [Back to top](#Responsibilities)* Transfer of monitoring and prescribing to primary care is ~~normally~~ after the patient’s dose has been optimised, and with satisfactory investigation results for at least 4 weeks
* The duration of treatment & frequency of review will be determined by the specialist, based on clinical response and tolerability.
* All dose or formulation adjustments will be the responsibility of the initiating specialist unless directions have been discussed and agreed with the primary care clinician
* Termination of treatment will bethe responsibility of the specialist.
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| **Initial stabilisation:**An initial dose of 10-20mg once daily is normally given. Due to the long half-life, doses of 10mg and 20mg may be given on alternate days. Short loading regimens may be used, however these may increase the risk of adverse effects and are considered optional.**The loading period** **must be prescribed by the initiating specialist.****Maintenance dose (following initial stabilisation):**10-20mg once daily. Due to the long half-life, doses of 10mg and 20mg may be given on alternate days.**The initial maintenance dose must be prescribed by the initiating specialist.****Conditions requiring dose adjustment:**None |
| Pharmaceutical aspects [Back to top](#Responsibilities) |
| Route of administration: | Oral |
| Formulation: | * 10mg and 20mg tablets.
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| Administration details: | Tablets should be swallowed whole with sufficient amounts of water. Administration with food does not affect absorption. |
| Other important information: | The active metabolite of leflunomide has a half-life of approximately 2 weeks and undergoes extensive enterohepatic recycling and may therefore persist for long periods of time even after administration has stopped. It is not sufficient to only stop the drug because adverse effects may still occur or worsen If serious adverse effects occur, the patient becomes pregnant, before starting treatment with an alternative DMARD, or for other reasons which require the rapid elimination of leflunomide, a washout procedure may be necessary. This is given as colestyramine 8g taken three times daily **or** activated charcoal 50g four times daily, usually for 11 days. This should be discussed with a specialist before initiating procedure.The washout procedure interrupts the enterohepatic recycling mechanism and reduces the half-life of leflunomide to around 1 - 2 days. If the patient cannot manage the full 11 day course, there is evidence that even a few days treatment is likely to be beneficial and that 48 hours of treatment may reduce the active metabolite of leflunomide by 49 - 65% if using colestyramine and by 48% for charcoal. |
| Significant medicine interactions [Back to top](#Responsibilities)The following list is not exhaustive. Please see [BNF](https://bnf.nice.org.uk/drugs/) & [SPC](https://www.medicines.org.uk/emc/) for comprehensive information and recommended management. |
| * **Anticoagulants:** Theanticoagulant effect ofvitamin K anticoagulants may be increased by leflunomide. Close INR monitoring and follow-up is recommended.
* **Live vaccines** (e.g. oral polio, oral typhoid, MMR, BCG) should generally be avoided. There is evidence that doses at or below 20mg leflunomide, as either monotherapy or in combination with 20mg prednisolone per day or less, can safely receive live shingles vaccinations. Clinician discretion is advised, see [section 9](#Nine_primary_care_monitoring)
* **JAK kinase inhibitors**, e.g. baricitinib, filgotinib: due to the increased risk of immunosuppression**.**
* **Colestyramine and activated charcoal:** Co-administration leads to a rapid and significant decrease in plasma levels of leflunomide metabolites by interrupting enterohepatic recirculation
* **Repaglinide, paclitaxel, pioglitazone, ceflaclor, benzylpenicillin, ciprofloxacin, indomethacin, ketoprofen, furosemide, cimetidine, zidovudine, venetoclax:** Leflunomide may increase the exposure to these products.
* **Rosuvastatin** levels may be increased by leflunomide. A maximum rosuvastatin dose of 10mg is recommended. Caution is recommended with **other statins** and dose reduction may be required.
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| Baseline investigations, initial monitoring and ongoing monitoring to be undertaken by specialist [Back to top](#Responsibilities)Monitoring at baseline and during initiation is the responsibility of the specialist; only once the patient is optimised on the chosen medication with no anticipated further changes expected in immediate future will prescribing and monitoring be transferred to primary care.  |
| Baseline investigations:* Height and weight
* Blood pressure
* Full blood count (FBC)
* Urea and electrolytes (U&Es) & creatinine clearance (CrCl)
* Alanine aminotransferase (ALT) and/or aspartate aminotransferase (AST), and albumin
* Screening for viral infections as per local policy, e.g. HIV, hepatitis B and C, varicella zoster, Epstein Barr virus, cytomegalovirus
* Screening for lung disease, including interstitial lung disease, should be undertaken at clinician discretion on a case by case basis.
* Provide or request appropriate vaccination prior to treatment initiation, according to local arrangements (e.g. pneumococcal, shingles, influenza, COVID-19)
* Pregnancy should be excluded before starting treatment.

**Initial monitoring:**To be repeated every 2 weeks until the dose has been stable for 6 weeks, then monthly for 3 months. * FBC
* U&Es, including creatinine and CrCl
* AST and/or ALT, and albumin

Following a dose change repeat every 2 weeks until the dose has been stable for 6 weeks, then revert to previous schedule.More frequent monitoring is appropriate in patients at higher risk of toxicity; e.g. concurrent use of more than one DMARD. This is particularly important for patients co-prescribed methotrexate and leflunomide. The combination is highly effective but potentially synergistically toxic to liver and bone marrow, and increase monitoring frequency is strongly advised.The specialist will retain the responsibility for monitoring the patient’s ongoing response to treatment, and advise if a dose change or treatment cessation is appropriate. This should usually be undertaken annually.When a patient is reviewed, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring outlined in [section 9](#Nine_primary_care_monitoring) remains appropriate. |
| Ongoing monitoring requirements to be undertaken by primary care [Back to top](#Responsibilities)See [section 10](#Ten_ADRs_and_Management) for further guidance on management of adverse effects/responding to monitoring results. |
| **Monitoring and advice** | **Frequency** |
| * FBC
* U&Es including creatinine and CrCl
* ALT and/or AST and albumin
* BP & weight
* Rheumatology patients: CRP &/or ESR
 | Monthly for the first 3 months of treatment followed by:At least every 12 weeks, and more frequently in patients at higher risk of toxicity, as advised by the specialist team.**The exact frequency of monitoring to be communicated by the specialist in all cases**. |
| * Patients aged 70-79 years old could be eligible for the shingles vaccine (herpeszoster). For patients taking concurrent DMARDs and/or doses of prednisolone exceeding 20mg daily, a non-live vaccine should be used. Specialist input may be required. Refer to [Green Book Chapter 6 (Contraindications and special considerations)](https://www.gov.uk/government/publications/contraindications-and-special-considerations-the-green-book-chapter-6) and [Green Book Chapter 28a (Shingles)](https://www.gov.uk/government/publications/shingles-herpes-zoster-the-green-book-chapter-28a) for further details.
* **Annual** influenza ([The Green Book, Chapter 19](https://www.gov.uk/government/publications/influenza-the-green-book-chapter-19)) vaccinations are recommended.
* COVID-19 vaccination is safe and recommended.
* Repeat pneumococcal vaccine may be indicated. See [Green Book Chapter 25](https://www.gov.uk/government/publications/pneumococcal-the-green-book-chapter-25) for advice.
 | * Shingles vaccination: Single course.
* Influenza vaccination: annual. It is advisable to add the patient to the influenza vaccine list.

Other vaccinations as per national schedule. |
| **(If relevant) If monitoring results are forwarded to the specialist team, please include clear clinical information on the reason for sending, to inform action to be taken by secondary care.** |
| Adverse effects and other management [Back to top](#Responsibilities)**Any serious adverse reactions should be reported to the MHRA via the Yellow Card scheme. Visit** [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard)For information on incidence of ADRs see relevant summaries of product characteristics |
| **Result** | **Action for primary care** |
| **As well as responding to absolute values in laboratory tests, a rapid change or a consistent trend in any value should prompt caution and extra vigilance** |
| Full blood count: * White blood cells <3.5x109/L
* Lymphocytes less than 0.5x109/L
* Neutrophils <1.6x109/L
* Platelets <140x109/L

Eosinophilia >0.5x109/L | Withhold and discuss with specialist team. |
| Mean cell volume >105 fL | Consider interruption in treatment. Check serum folate, B12, alcohol history and TSH and treat any underlying abnormality. If results of these additional investigations are normal discuss with specialist team urgently.  |
| Blood Pressure | Treat hypertension in line with NICE guidance. If BP remains uncontrolled, withhold leflunomide and discuss with specialist team |
| Weight | If >10% weight loss with no cause identified, withhold leflunomide and discuss with specialist team. |
| Signs or symptoms of bone marrow suppression, e.g. unexplained bleeding or bruising with or without sore throat, mouth ulcers. | Check FBC immediately and discuss with the specialist team. See haematological monitoring above.  |
| Acute infection | During serious infections temporarily withhold leflunomide until the patient has recovered. Consider if additional investigations (e.g. FBC) and washout procedure required – discuss with specialist team. [See section 6](#Six_pharmaceutical) |
| **Liver function tests**:ALT or AST >100 units/L, or any sudden increases (e.g. double of baseline), OR Unexplained fall in serum albumin <30g/LJaundice | Withhold and discuss with specialist team. Consider washout procedure. [See section 6](#Six_pharmaceutical)Assess for other causes of hepatic dysfunction such as alcohol history and drug interactions, including OTC or complementary medication. |
| **Renal function**: Creatinine increase of greater than 30% from baseline in the last 12 months or GFR reduces to less than 60mL/min | Withhold and discuss with specialist team. |
| **Gastrointestinal disorders**:Nausea Diarrhoea | Review for reversible causes. Discuss with specialist team if persistent or severe. Washout, under specialist advice, may be required if severe. [See section 6](#Six_pharmaceutical)Diarrhoea is common and usually settles. If persistent or severe, withhold and discuss with specialist team. |
| Ulcerative stomatitis, haematemesis, black or bloody stools, or suspected pancreatitis. | Withhold and discuss with specialist team. Washout, under specialist advice, may be required if severe. [See section 6](#Six_pharmaceutical) |
| **Symptoms of interstitial lung disease** e.g. persistent cough, dyspnoea, fever | If leflunomide-induced lung disease is suspected, discuss with specialist team urgently. Consider washout procedure. See [section 6](#Six_pharmaceutical) Treat with corticosteroids as advised by specialist and do not restart leflunomide.  |
| **Generalised rash** | Discuss with specialist, washout may be required if severe. See [section 6](#Six_pharmaceutical) |
| **Pregnancy** | Stop leflunomide immediately and discuss with specialist team urgently. Washout should be considered. See [section 12](#Twelve_pregnancy_paternity).  |
| Advice to patients and carers [Back to top](#Responsibilities)The specialist will counsel the patient with regard to the benefits and risks of treatment and will provide the patient with any relevant information and advice, including patient information leaflets on individual medicines. |
| **The patient should be advised to report any of the following signs or symptoms to their primary care prescriber without delay:** * Symptoms of chickenpox, or contact with a person with chickenpox or shingles.
* Persistent cough, shortness of breath, or any other problems with breathing.
* Sore throat, high temperature, skin rash, swollen glands, or any other signs or symptoms of infection
* Signs or symptoms of liver problems, such as yellow skin or eyes (jaundice), itching all over, nausea or vomiting.
* Unexplained bleeding or bruising, black stools, or blood in the vomit or stools.
* Suspected or confirmed pregnancy.
* Any tingling, numbness or weakness in extremities that may indicate peripheral neuropathy

**The patient should be advised:*** Moderate their alcohol intake to no more than 4 units per week while taking leflunomide, Taking alcohol and leflunomide together increases the risk of liver injury.
* Tell anyone who prescribes them a medicine that they are taking leflunomide. Always ask a pharmacist before purchasing any medicines over the counter, including herbal remedies, and ask if they are safe.
* To use effective contraception, and to take a pregnancy test if they think they could be pregnant. Patients should inform the specialist or GP as soon as possible if they become pregnant. All patients, both male and female, should inform their specialist well in advance if they are planning a pregnancy so that changes can be made to their treatment regime.

Patient information:Leflunomide in rheumatoid arthritis: [Leflunomide in rheumatoid arthritis (RA) | NRAS](https://nras.org.uk/resource/leflunomide/) and: <https://www.versusarthritis.org/about-arthritis/treatments/drugs/leflunomide/>General Information: <https://patient.info/medicine/leflunomide-tablets-for-arthritis-arava>  |
| Pregnancy, paternal exposure and breast feeding [Back to top](#Responsibilities)It is the responsibility of the specialist to provide advice on the need for contraception to male and female patients on initiation and at each review, but the ongoing responsibility for providing this advice rests with both the primary care prescriber and the specialist. |
| **Pregnancy:**Leflunomide is contraindicated in pregnancy. Patients of child-bearing potential should use effective contraception during and for up to 2 years after treatment, unless a washout procedure is followed (see below). See [FSRH statement on contraception for women using known teratogenic drugs](https://www.fsrh.org/standards-and-guidance/documents/fsrh-ceu-statement-contraception-for-women-using-known/) for information on contraceptives considered highly effective. The active metabolite of leflunomide is highly protein bound and because of extensive enterohepatic recycling its half-life is prolonged. The manufacturer currently recommends a two-year waiting period after discontinuation of the medicine before attempting to conceive. The manufacturer also advises that the plasma levels of the active metabolite of leflunomide (teriflunomide) should be below 0.02mg/L at the end of the two year period, confirmed by a second test after an interval of at least 14 days. If both tests show plasma levels of teriflunomide to be less than 0.02mg/L, then no teratogenic risk is expected. It is important to note that this test may only be available to patients who are taking the branded Arava® leflunomide tablets.If a waiting period of 2 years using effective contraception is considered unpractical, a washout procedure may be advisable ([see section 6](#Six_pharmaceutical)). Following this, the recommendations regarding verification of teriflunomide levels remain. Two tests must be done no less than 14 days apart and conception is not advised until one and a half months after the first plasma concentration below 0.02mg/L. This test may only be available to patients who are taking the branded Arava® leflunomide tablets.If a woman becomes pregnant while taking leflunomide or within two years after discontinuation, the manufacturer recommends an immediate 11-day washout procedure with colestyramine or activated charcoal (see [section 6](#Six_pharmaceutical)).Information for healthcare professionals: <https://www.medicinesinpregnancy.org/bumps/monographs/USE-OF-LEFLUNOMIDE-IN-PREGNANCY/>. Replaced by <https://uktis.org/monographs/use-of-leflunomide-in-pregnancy/> on 30/06/2023Information for patients and carers: <https://medicinesinpregnancy.org/Medicine--pregnancy/Leflunomide/> **Breastfeeding:**Leflunomide and its metabolites pass into breast milk in animal studies. Manufacturer states that leflunomide is contraindicated for breastfeeding patients.Information for healthcare professionals: <https://www.sps.nhs.uk/medicines/leflunomide/>**Paternal exposure**:Male patients should be aware of the possible male-mediated foetal toxicity. Effective contraception during treatment with leflunomide should also be guaranteed. |

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| Specialist contact information [Back to top](#Responsibilities) |
| Name: [*insert name*] Role and specialty: *[insert role and specialty]*Daytime telephone number: *[insert daytime telephone number]*Email address: *[insert email address]* Alternative contact: *[insert contact information, e.g. for clinic or specialist nurse]*Out of hours contact details: *[insert contact information, e.g. for duty doctor]* |
| Additional information [Back to top](#Responsibilities) |
| Where patient care is transferred from one specialist service or GP practice to another, a new shared care agreement must be completed. Ensure that the specialist is informed in writing of any changes to the patient’s GP or their contact details. |
| References [Back to top](#Responsibilities) |
| * eBNF. Leflunomide accessed via <https://bnf.nice.org.uk/drug/leflunomide.html> on 06.10.21
* Leflunomide medac 15mg film-coated tablets. Date of revision of the text 06.08.21. Accessed via <https://www.medicines.org.uk/emc/product/5243/smpc> on 06.10.21
* Arava 10mg tablets. Date of revision of the text 07.05.21. Accessed via <https://www.medicines.org.uk/emc/product/4056/smpc> on 06.10.21
* Arava 20mg tablets. Date of revision of the text 10.05.21. Accessed via: <https://www.medicines.org.uk/emc/product/4055/smpc> on 06.10.21
* Leflunomide Mylan 20mg film-coated tablets. Date of revision of the text 23.10.17. Accessed via <https://www.medicines.org.uk/emc/product/8567/smpc> on 06.10.21
* British Society of Rheumatology and British Health Professionals in Rheumatology. 2017. [Guidelines for the prescription and monitoring of non-biologic disease-modifying anti-rheumatic drugs](https://academic.oup.com/rheumatology/article/56/6/865/3053478).
* British Society of Rheumatology and British Health Professionals in Rheumatology. 2016. [Guideline on prescribing drugs in pregnancy and breastfeeding – Part I: standard and biologic disease modifying anti-rheumatic drugs and corticosteroids](https://academic.oup.com/rheumatology/article/55/9/1693/1744535).
* UKTIS leflunomide in pregnancy monograph. Date of revision of the text October 2018. Accessed via <https://www.toxbase.org/poisons-index-a-z/l-products/leflunomide-in-pregnancy/> on 06.10.21. Replaced by <https://uktis.org/monographs/use-of-leflunomide-in-pregnancy/> on 30.06.23
* Specialist Pharmacy Service, safety in breastfeeding. Reviewed 18.09.2020. Accessed via <https://www.sps.nhs.uk/medicines/leflunomide/>
* Renal Drug database leflunomide monograph. Date of revision of the text 22.02.2018. Accessed via <https://renaldrugdatabase.com/monographs/leflunomide> on 22.10.21.
* Rozman, B. Clinical Pharmacokinetics of leflunomide. Clin Pharmacokinet 2002; 41; 421-430
 |
| Other relevant national guidance [Back to top](#Responsibilities) |
| * Shared Care for Medicines Guidance – A Standard Approach (RMOC). Available from <https://www.sps.nhs.uk/articles/rmoc-shared-care-guidance/>
* NHSE guidance – Responsibility for prescribing between primary & secondary/tertiary care. Available from <https://www.england.nhs.uk/publication/responsibility-for-prescribing-between-primary-and-secondary-tertiary-care/>
* General Medical Council. Good practice in prescribing and managing medicines and devices. Shared care. Available from <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-practice-in-prescribing-and-managing-medicines-and-devices/shared-care>
* NICE NG197: Shared decision making. Last updated June 2021. <https://www.nice.org.uk/guidance/ng197/>
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| Local arrangements for referral [Back to top](#Responsibilities)Define the referral procedure from hospital to primary care prescriber & route of return should the patient’s condition change. |
| Follow Place based processes  |

# Appendix 1: Shared Care Request letter (Specialist to Primary Care Prescriber)

Dear *[insert Primary Care Prescriber's name]*

Patient name: *[insert patient's name]*

Date of birth: *[insert date of birth]*

NHS Number *: [insert NHS Number]*

Diagnosis: *[insert diagnosis]*

As per the agreed *[insert APC name]*shared care protocol for *[insert medicine name]* for the treatment of *[insert indication],* this patient is now suitable for prescribing to move to primary care.

The patient fulfils criteria for shared care and I am therefore requesting your agreement to participate in shared care. Where baseline investigations are set out in the shared care protocol, I have carried these out.

I can confirm that the following has happened with regard to this treatment:

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|  | **Specialist to complete** |
| *The patient has been initiated on this therapy and has been on an optimised dose for the following period of time:* |  |
| *Baseline investigation and monitoring as set out in the shared care documents have been completed and were satisfactory* | *Yes / No* |
| *The condition being treated has a predictable course of progression and the patient can be suitably maintained by primary care* | *Yes / No* |
| *The risks and benefits of treatment have been explained to the patient* | *Yes / No* |
| *The roles of the specialist/specialist team/* *Primary Care Prescriber / Patient and pharmacist have been explained and agreed* | *Yes / No* |
| *The patient has agreed to this shared care arrangement, understands the need for ongoing monitoring, and has agreed to attend all necessary appointments* | *Yes / No* |
| *I have enclosed a copy of the shared care protocol which covers this treatment/the SCP can be found here (insert electronic/ web link)* | *Yes / No* |
| *I have included with the letter copies of the information the patient has received* | *Yes / No* |
| *I have provided the patient with sufficient medication to last until* |  |
| *I have arranged a follow up with this patient in the following timescale* |  |

Treatment was started on *[insert date started]* and the current dose is *[insert dose and frequency]*.

If you are in agreement, please undertake monitoring and treatment from *[insert date]* NB: date must be at least 1 month from initiation of treatment.

The next blood monitoring is due on *[insert date]* and should be continued in line with the shared care guideline.

Please respond to this request for shared care, in writing, within 14 days of the request being made where possible.

# Appendix 2: Shared Care Agreement Letter (Primary Care Prescriber to Specialist)

**Primary Care Prescriber Response**

Dear *[insert Doctor's name]*

Patient *[insert Patient's name]*

NHS Number *[insert NHS Number]*

Identifier *[insert patient's date of birth and/or address]*

Thank you for your request for me to accept prescribing responsibility for this patient under a shared care agreement and to provide the following treatment

|  |  |  |
| --- | --- | --- |
| Medicine | Route | Dose & frequency |
|  |  |  |

I can confirm that I am willing to take on this responsibility from *[insert date]* and will complete the monitoring as set out in the shared care protocol for this medicine/condition.

Primary Care Prescriber signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

Primary Care Prescriber address/practice stamp

# Appendix 3: Shared Care Refusal Letter (Primary Care Prescriber to Specialist)

**Re:**

Patient *[insert Patient's name]*

NHS Number *[insert NHS Number]*

Identifier *[insert patient's date of birth and/or address]*

Thank you for your request for me to accept prescribing responsibility for this patient.

In the interest of patient safety NHS *[insert ICB name]***,** in conjunction with local acute trusts have classified *[insert medicine name]*as a Shared Care drug, and requires a number of conditions to be met before transfer can be made to primary care.

**I regret to inform you that in this instance I am unable to take on responsibility due to the following:**

|  |  |  |
| --- | --- | --- |
|  |  | **Tick which apply** |
| **1.** | **The prescriber does not feel clinically confident in managing this individual patient’s condition, and there is a sound clinical basis for refusing to accept shared care**As the patients primary care prescriber I do not feel clinically confident to manage this patient’s condition because *[insert reason]*. I have consulted with other primary care prescribers in my practice who support my decision. This is not an issue which would be resolved through adequate and appropriate training of prescribers within my practice.**I have discussed my decision with the patient and request that prescribing for this individual remain with you as the specialist, due to the sound clinical basis given above.** |  |
| **2.** | **The medicine or condition does not fall within the criteria defining suitability for inclusion in a shared care arrangement**As the medicine requested to be prescribed is not included on the national list of shared care drugs as identified by RMOC or is not a locally agreed shared care medicine I am unable to accept clinical responsibility for prescribing this medication at this time. **Until this medicine is identified either nationally or locally as requiring shared care the responsibility for providing this patient with their medication remains with you**  |  |
| **3.** | **A minimum duration of supply by the initiating clinician**As the patient has not had the minimum supply of medication to be provided by the initiating specialist I am unable to take clinical responsibility for prescribing this medication at this time. Therefore can you please contact the patient as soon as possible in order to provide them with the medication that you have recommended.***Until the patient has had the appropriate length of supply the responsibility for providing the patient with their medication remains with you.*** |  |
| **4.** | **Initiation and optimisation by the initiating specialist**As the patient has not been optimised on this medication I am unable to take clinical responsibility for prescribing this medication at this time. Therefore can you please contact the patient as soon as possible in order to provide them with the medication that you have recommended.***Until the patient is optimised on this medication the responsibility for providing the patient with their medication remains with you.*** |  |
| **5.** | **Shared Care Protocol not received**As legal responsibility for clinical care lies with the clinician who signs the prescription, I need to ensure that I am in possession of sufficient clinical information for me to be confident to prescribe this treatment for my patient and it is clear where each of our responsibilities lie to ensure the patient is safely managed***.***For this reason I am unable to take clinical responsibility for prescribing this medication at this time, therefore would you please contact the patient as soon as possible in order to provide them with the medication that you have recommended.***Until I receive the appropriate SCP, responsibility for providing the patient with their medication remains with you.*** |  |
| **6.** | **Other (Primary Care Prescriber to complete if there are other reasons why shared care cannot be accepted)** |  |

I would be willing to consider prescribing for this patient once the above criteria have been met for this treatment.

NHS England ‘Responsibility for prescribing between Primary & Secondary/Tertiary care’ guidance (2018) states that “when decisions are made to transfer clinical and prescribing responsibility for a patient between care settings, it is of the utmost importance that the GP feels clinically competent to prescribe the necessary medicines. It is therefore essential that a transfer involving medicines with which GPs would not normally be familiar should not take place without full local agreement, and the dissemination of sufficient, up-to-date information to individual GPs.” In this case we would also see the term GP being interchangeable with the term Primary Care Prescriber.

Please do not hesitate to contact me if you wish to discuss any aspect of my letter in more detail and I hope to receive more information regarding this shared care agreement as soon as possible

Yours sincerely

**Primary Care Prescriber signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_**

**Primary Care Prescriber address/practice stamp**