DERBYSHIRE JOINT AREA PRESCRIBING COMMITTEE
SHARED CARE AGREEMENT

Riluzole for the treatment of the Amyotrophic Lateral Sclerosis (ALS) form of Motor Neurone Disease (MND) (adult services)

1. REFERRAL CRITERIA

- Shared Care is only appropriate if it provides the optimum solution for the patient.
- Prescribing responsibility will only be transferred when it is agreed by the consultant and the patient's GP that the patient's condition is stable or predictable.
- The patient will be given a supply of riluzole 50mg tablets sufficient for 12 weeks maintenance therapy (specialist to prescribe for the first 3 months)

2. AREAS OF RESPONSIBILITY

GP responsibilities	Consultant/specialist responsibilities
1. If NOT participating in shared care reply to the request from the consultant/specialist as soon as practicable (see appendix 1) **2.** Prescribing riluzole after the first 3 months of therapy **3.** Monitoring the patient as per section vi once GP has taken over prescribing of riluzole. FBC & LFT three monthly for 9 months then annually thereafter **4.** ALT should be measured more frequently in patients who develop elevated ALT levels and treatment discontinued if levels increase to five times the ULN **5.** White blood cell counts should be checked and riluzole discontinued if WBC <3.5 or neutrophils < 2.0 Arrange for immediate hospital assessment if neutropenic sepsis is suspected. **6.** Refer back to specialist if patients develop respiratory symptoms such as dry cough and/or dyspnoea. Stop riluzole and make an urgent referral to specialist if chest x-ray finding are suggestive of interstitial lung disease. **7.** Manage adverse effects as detailed in section v and discuss with specialist team when required. Referral back to the specialist physician if side-effects become troublesome, or in the presence of raised LFTs **8.** Refer the management back to the specialist if the patient becomes or plans to become pregnant. **9.** Stop treatment on advice of a specialist **10.** Report any adverse effects to the referring specialist and the MHRA yellow card scheme	**1.** Assess the patient and provide diagnosis; ensure that this diagnosis is within scope of this shared care protocol and communicated to primary care. Assess for contraindications and cautions and interactions. **2.** 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 to enable the patient to reach an informed decision. **3.** Conduct baseline monitoring as per section vi - U&E, LFT, FBC **4.** Initiation of riluzole and prescribing for the first 3 months of therapy **5.** Monitoring side-effects, FBC and LFT in the first 3 months of treatment. If patients develop respiratory symptoms such as dry cough and/or dyspnoea, chest radiography should be performed **6.** Advise patients to seek medical advice if they develop infective symptoms such as dry cough and/or dyspnoea **7.** Send copy of the shared care agreement to GP and ask whether they are willing to participate in shared care, handover treatment to GP at 3 months if agreement reached **8.** Communicate promptly with GP any changes in treatment or if any dosage adjustments required; Assessment of the continuing need for treatment **9.** Reassume prescribing responsibilities if a woman becomes or wishes to become pregnant. **10.** Report any adverse effects to the MHRA yellow card scheme and GP

Patient responsibilities

1. Take riluzole as prescribed and avoid abrupt withdrawal unless advised by the primary care prescriber or specialist.
2. 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.
3. Report to the specialist or GP if they do not have a clear understanding of their treatment
4. Report any adverse effects to the specialist or GP whilst taking riluzole. A febrile illness should be reported on the same day that it starts.
5. Report any of the following signs or symptoms without delay:
   - Signs or symptoms of infection e.g. fever, chills or shivering, flu-like symptoms, sore throat, rashes, or mouth ulcers.
   - Dry cough and/or dyspnoea.
   - Signs or symptoms of liver problems, such as yellow skin or eyes (jaundice), itching all over, nausea or vomiting.
6. Report the use of any over the counter (OTC) medications to their prescriber and be aware they should discuss the use of riluzole with their pharmacist before purchasing any OTC medicines.
7. Not to drive or operate heavy machinery if riluzole affects their ability to do so safely.
8. Patients of childbearing potential should 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.

3. COMMUNICATION AND SUPPORT

i. Hospital contacts:	ii. Out of hours contacts and procedures:
University Hospitals of Derby and Burton NHS Foundation Trust Dr M Phillips 01332 258238 Dr Michael Knopp, Consultant Neurologist: 01332 783548 Sarah Cole, MND Nurse Specialist: 01332 788865	**University Hospitals of Derby and Burton NHS Foundation Trust** On-call Pharmacist via switchboard 01332 340131

iii. Specialist support/resources available to GP including patient information

The manufacturers patient information leaflet will be provided with all riluzole dispensed. For newly diagnosed patients, a booklet from the Motor Neurone Disease Association on practical management of the disease will be provided to each patient. The MNDA website has further supportive information for GPs.

Patient information

- MND association riluzole information leaflet https://www.mndassociation.org/app/uploads/2015/07/5A-Riluzole.pdf
- MND Scotland riluzole fact sheet https://www.mndscotland.org.uk/media/1824/22-riluzole-2017.pdf
- NHS.uk. Low white blood cell count https://www.nhs.uk/conditions/low-white-blood-cell-count/

Patient information leaflets are also available from https://www.medicines.org.uk/emc/search?q=riluzole

4. CLINICAL INFORMATION

i. Prescribed indications	Riluzole (NICE TA20) is licensed to extend life for individuals with the amyotrophic lateral sclerosis (ALS) form of motor neurone disease (MND)
ii. Therapeutic summary	Motor neurone disease is the term used to describe progressive muscular atrophy (PMA) and amyotrophic lateral sclerosis (ALS) which includes Progressive Bulbar Palsy. ALS, which is characterised by both upper and lower motor neurone signs, is the most common form of MND, accounting for 65% to 85% of all cases. Adult-onset MND is characterised by progressive degeneration of the motor neurones of the brain, brain stem or spinal cord, starting insidiously with symptoms and signs including stumbling, foot drop, weakened grip, slurred speech, cramp, muscle wasting, twitching and tiredness. Other symptoms of MND include muscle stiffness, paralysis, incoordination and impaired speech, swallowing and breathing. Most individuals die from ventilatory failure, resulting from progressive weakness and wasting of limb, respiratory and bulbarmuscles within approximately 3 years of the onset of symptoms.
iii. Dose & Route of administration	**50mg every 12 hours; Use generic tablets 1st line** **Administration - swallowing difficulties:** The tablets can be crushed and mixed with soft food e.g. yoghurt or puree to aid swallowing. Tablets crushed onto food should be eaten within 15 minutes as there is no stability data available for this method of administration. Use crushed tablets with care as they may have a local anaesthetic effect in the mouth. **Administration – enteral tubes:** The tablets can be crushed and dispersed in water for enteral tube administration. Give immediately. Riluzole may block enteral feeding tubes, so ensure that the tube is flushed well after each dose. Crushing or splitting riluzole tablets is unlicensed. A licensed oral suspension is available however this is significantly more expensive. The MND specialists may recommend suspension in exceptional circumstances in patients with severe dysphagia causing coughing and aspiration, or in patients using enteral feeding where there is a risk of crushed riluzole tablets blocking feeding tubes.
iv. Duration of treatment	Indefinite

v. Adverse effects

Refer to the SPC for a full list of adverse effects & further information http://www.medicines.org.uk

Any serious adverse reactions should be reported to the MHRA via the Yellow Card scheme. Visit https://yellowcard.mhra.gov.uk/

Common or very common
Abdominal pain; asthenia; diarrhoea; dizziness; drowsiness; headache; nausea; oral paraesthesia; pain; tachycardia; vomitingTransient increases in ALT can occur in the first 3 months of treatment, with levels returning to below twice the upper limit of normal after 2 to 6 months while treatment continues.

Adverse effect	Suggested action for primary care
Altered LFTs Elevated LFTs up to 5 times ULN	Continue riluzole and discuss with specialist. Increase monitoring frequency if ALT is elevated.
ALT rises to 5 times ULN	Stop riluzole and inform specialist. Riluzole should not normally be re-started.
Respiratory function Dry cough or dyspnoea	Order chest x-ray. Stop riluzole immediately if findings are suggestive of interstitial lung disease. Inform specialist of findings.
Haematological parameters Febrile illness	Check WCC Discontinue riluzole if WBC <3.5 or neutrophils < 2.0. Arrange for immediate hospital assessment if neutropenic sepsis is suspected.
Decreased WCC to below lower limit of local reference range	In the absence of febrile illness or clinical signs of neutropenia, seek advice from specialist.

vi. Monitoring Requirements

Consultant/specialist (responsibility for at least the first 3 months of therapy)

- Baseline U&E
- LFTs & FBC including a differential white cell count (WCC) at baseline, every month during the first 3 months of treatment, every 3 months during the remainder of the first year, or until transferred to primary care.
- Routine review to assess effectiveness and ongoing appropriateness of treatment every 6 months, or as clinically indicated
- After each review, advise primary care whether treatment should be continued, confirm the ongoing dose, and whether the ongoing monitoring remains appropriate.

GP ongoing monitoring (after minimum 3months treatment by specialist):

- LFTs, FBC & WCC every 3 months for the remainder of the first year; Annually after the first year.

ALT levels should be measured more frequently in patients who develop elevated ALT levels.

vii. Contraindications and cautions

Contraindications
Hypersensitivity to the active substance or to any of the excipients.
Hepatic disease or baseline transaminases greater than 3 times the Upper Limit of Normal (ULN).
Pregnancy or breast feeding
Acute porphyrias

Cautions
Liver impairment: riluzole should be prescribed with care in patients with:

- a history of abnormal liver function
- slightly elevated serum transaminases (up to 3 times ULN), bilirubin and/or gamma-glutamyl transferase (GGT) levels
- baseline elevations of several liver function tests (especially elevated bilirubin) should preclude the use of riluzole

Interstitial lung disease has been reported in patients treated with riluzole
Neutropenia or febrile illness
Renal Impairment (due to lack of data)

viii. Clinically relevant drug interactions

Riluzole is metabolised by cytochrome P450 isoform 1A2 (CYP1A2), and has the potential to interact with drugs which inhibit or induce CYP1A2. The clinical relevance of these interactions has not been established, and some of these medicines are frequently used with riluzole without incident. Discuss with specialist team if there are any concerns.

- CYP1A2 inhibitors include caffeine, diclofenac, diazepam, clomipramine, imipramine, fluvoxamine, phenacetin, theophylline, amitriptyline, quinolones, mexiletine, nicergoline, rucaparib, vemurafenib, combined hormonal contraceptives
- CYP1A2 inducers include cigarette smoke, charcoal-grilled food, rifampicin, omeprazole

ix. Pregnancy, paternal exposure and breast feeding

Pregnancy:
Riluzole is contraindicated in pregnancy.

	Breastfeeding: Riluzole is contraindicated in breast-feeding women. Very limited published evidence indicates low levels in breast milk. The UK Drugs in Lactation Advisory Service recommends caution if used, and infants should be monitored for adverse effects associated with adult use. Information for healthcare professionals: https://www.sps.nhs.uk/medicines/riluzole/ **Paternal exposure:** Fertility studies in rats indicate slight impairment of reproductive performance and fertility at doses of 15 mg/kg/day (which is higher than the therapeutic dose), probably due to sedation and lethargy. The relevance of this to human fertility is not known.
x. Additional information	Where patient care is transferred from one specialist service or GP practice to another, a new shared care agreement must be completed **To be read in conjunction with the following documents** • RMOC Shared Care Guidance • NHSE/NHSCC guidance – items which should not be routinely prescribed in primary care: guidance for CCGs • NHSE policy- Responsibility for prescribing between Primary & Secondary/Tertiary Care
xi. Supply, storage and reconstitution instructions	Not applicable
xii. Prepared by **Reviewed 2023**	Dr M Phillips, Consultant in Rehabilitation Medicine University Hospitals of Derby and Burton NHS Foundation Trust The Derbyshire Medicines Management Shared Care & Guideline Group In line with NHSE/ RMOC Shared Care Protocols- Riluzole for patients within adult services, July 2022 https://www.england.nhs.uk/publication/shared-care-protocols/

This does not replace the SPC, which should be read in conjunction with it.
First prepared: May 2010 Updated: June 2023 Review date: May 2026

Sample transfer letter

{Insert Hospital Logo here}

Hospital No: «HOSPITAL_NUMBER»
NHS No: «NHS_NUMBER»

{Insert date}

PRIVATE & CONFIDENTIAL
«GP_TITLE» «GP_INITIALS» «GP_SURNAME»
«GP_ADDRESS_1»
«GP_ADDRESS_2»
«GP_POSTCODE»

DERBYSHIRE JAPC SHARED CARE AGREEMENT LETTER

Dear «GP_TITLE» «GP_SURNAME»

«FORENAME_1» «SURNAME» «DATE_OF_BIRTH»
«CURRENT_ADDRESS_1» «CURRENT_ADDRESS_2» «CURRENT_POSTCODE»

Your patient was seen on ***{Insert date}*** with a diagnosis of ***{Insert diagnosis}***. I have initiated the following medication ***{Insert drug name}*** and am writing to ask you to participate in the shared care for this patient.

This medication has been accepted as suitable for shared care by the Derbyshire Joint Area Prescribing Committee (JAPC). I agree to the secondary care responsibilities set out in the shared care agreement for this medication (available from www.derbyshiremedicinesmanagement.nhs.uk/clinical_guidelines/shared_care_guidelines). I am therefore requesting your agreement to share the care of this patient. Where preliminary tests are set out in the agreement I have carried these out and results are below.

Dose Regimen	Date ***{Insert medicine name}*** started	Date for GP to start prescribing ***{Insert medicine name}*** from
The baseline test results are (if applicable):		

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

	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	

If you do **NOT** wish to participate in shared care for this patient, usually under clinical grounds, please complete the attached form.

Yours sincerely

{Consultant name}

GP RESPONSE TO SHARED CARE (only complete & send if **NOT** participating in shared care*)

* For completeness please record medication on GP clinical system as per guidance- 'Recording medicines prescribed and issued by other Healthcare Providers'

Shared care is produced by GPs and specialists knowledgeable in the field of that drug usage. The shared care has been approved by the JAPC. This allows a more convenient service to the patient and cost effective use of NHS resources.

Patient:	NHS No:
Consultant:	Medicine requested for shared care:

I will **NOT** be undertaking the GP responsibilities as described in the agreed shared care guideline. My clinical reasons for declining shared care for this patient are listed in the box below:

		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)	

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

{GP name}
{Surgery}

Please send a copy of this response to the specialist/consultant requesting shared care