Humber Area Prescribing Committee

SHARED CARE FRAMEWORK for Riluzole

HUMBER AREA PRESCRIBING COMMITTEE

DATE APPROVED BY APC: 22/6/22

REVIEW DATE: JUNE 2025

PATIENT NAME	*NHS NUMBER*	*DATE OF BIRTH*
ADDRESS		
GP'S NAME		

We agree to treat this patient within this Prescribing Framework

Specialist Prescriber's Name…… Prof Reg. No. ……

Specialist Prescriber's Signature…… Date:……

Where prescriber is not a consultant:

Consultant's Name: …… GMC No ……..

Consultant's Signature ……..... ……. Date:…….

GP's Name: …… GMC No ……..

GP's Signature ……..... ……. Date:…….

If the General Practitioner is unable to accept prescribing responsibility for the above patient the consultant should be informed within two weeks of receipt of this framework and consultant's / nurse specialist's letter. In such cases the GP are requested to update the consultant, by letter, of any relevant changes in the patient's medication / medical condition.

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Shared Care Framework for *Riluzole for Amylotrophic Lateral Sclerosis*

Specialist responsibilities

- Diagnose the patient according to national criteria; ensure that this diagnosis is communicated to primary care.
- Discuss the benefits and risks of the treatment with the patient and provide the appropriate counselling, to enable the patient to reach an informed decision. Provide a patient information leaflet.
- Assess for contraindications, cautions and interactions.
- Conduct required baseline investigations and initial monitoring as detailed in section 8
- Initiate and optimise treatment as outlined in section 6.
- Prescribe the maintenance treatment for at least 4 weeks and until optimised.
- Once treatment is optimised, complete the shared care documentation and send to patient's GP detailing the diagnosis, current and ongoing dose, any relevant test results and when the next monitoring is required.
- Prescribe sufficient medication to enable transfer to primary care.
- Conduct the required annual reviews and monitoring detailed in specialist section 8
- Review treatment if a woman becomes or wishes to become pregnant.
- Provide advice to primary care on the management of adverse effects if required.
- Advise primary care if treatment should be discontinued.

Primary care responsibilities

- Respond to the request from the specialist for shared care in writing within 14 days.
- If shared care is accepted, prescribe ongoing treatment as detailed in the specialist's request and as per section 6, taking into any account potential drug interactions in section 10.
- Adjust the dose of riluzole prescribed as advised by the specialist.
- Conduct the required monitoring as outlined in section 9.
- Assess for possible interactions with riluzole when starting new medicines (see section 9)
- Manage any adverse effects as detailed in section 11 and discuss with specialist team when required.
- Stop riluzole if neutropenia develops. Arrange for immediate hospital assessment if neutropenic sepsis is suspected.
- Stop riluzole and arrange for chest x-ray if the patient experiences symptoms such as dyspnoea or dry cough
- Stop riluzole and make an urgent referral to the specialist if ALT rises to more than 5 times the Upper limit of normal (ULN)or if chest x-ray finding are suggestive of interstitial lung disease
- Refer the management back to the specialist if the patient becomes or plans to become pregnant.
- Stop treatment as advised by the specialist.

Patient responsibilities

- Take riluzole as prescribed, and avoid abrupt withdrawal unless advised by GP or specialist.
- Attend regularly for monitoring and review appointments with primary care and specialist.
- Report adverse effects to their GP. Seek immediate medical attention if they develop any symptoms as detailed in section 11, particularly if signs of febrile illness
- Report the use of any over the counter medications to their GP and be aware they should discuss the use of riluzole with their pharmacist before purchasing any OTC medicines.
- Not to drive or operate heavy machinery if riluzole affects their ability to do so safely.
- Women of child-bearing potential should inform the specialist or GP immediately if they become pregnant or wish to become pregnant.

1. Introduction:	The term 'Motor Neurone Disease' is used to describe variants of the disease - namely progressive muscular atrophy (PMA) and amyotrophic lateral sclerosis (ALS). 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 usually starts 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, in-coordination and impaired speech, swallowing and breathing. Most individuals die from ventilatory failure, resulting from progressive weakness and wasting of limb, respiratory and bulbar muscles within approximately 3 years of the onset of symptoms. The incidence of ALS ranges from 1.8 to 2.2 per 100,000 population and prevalence ranges from 4.0 to 4.7 per 100,000 population in UK. Therefore, at any one time about 2000 individuals per year in England and Wales are affected by ALS. Four randomised controlled trials (including a number of UK centres) in patients who fall within the diagnostic category of ALS have compared riluzole with placebo (a total of 1477 individuals). All trials used tracheotomy-free survival as a primary outcome. All four of the trials identified and reported riluzole to be associated with a relative reduction in hazard ratio for tracheotomy-free survival at 18 months of 17% (i.e. hazard ratio of 0.88, 95% CI: 0.75-1.02). The National Institute for Health and Clinical Excellence (NICE) produced guidance on the use of riluzole in January 2001 (TAG No. 20) which recommended use in patients with the ALS form of MND. The guidelines should be read in conjunction with the general guidance on prescribing matters given in EL (91) 127 “Responsibility for prescribing between hospitals and GPs”.

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2. Indication:	Riluzole is recommended for the treatment of individuals with the amyotrophic lateral sclerosis (ALS) form of Motor Neurone Disease (MND). Riluzole is currently the only drug licensed for treating ALS in the UK	
3. Licensing Information	Riluzole tablets are licensed to be swallowed whole. Crushing tablets is an unlicensed use of a licensed medicine. Riluzole liquid (Teglutik) is licensed for oral administration as well as via feeding tubes.	
4. Pharmaceutical Information	Route	Oral including administration via feeding tubes
	Formulation	Generic riluzole 50mg tablets – these are the preferred formulation Teglutik® riluzole 5mg/ml suspension
	Administration details	**Oral administration:** • Tablets should be swallowed whole • Riluzole suspension (Teglutik™) is licensed orally for patients with ALS. Please discuss with the MND team before switching to the liquid formulation. • If needed, the riluzole tablets may be crushed and mixed with soft food such as yoghurt or puree. They should be administered within fifteen minutes. The crushed tablets may have a local anaesthetic effect in the mouth. It should also be noted that absorption may be affected by fatty food. This is an unlicensed use of a licensed medication For administration via feeding tubes: • The manufacturers of riluzole oral suspension (Teglutik™) advise that it can be administered through an enteral feeding tube. This is a licensed use of a licensed medicine • The manufacturer of Rilutek® brand has anecdotal reports that the tablets can be crushed and mixed with water. The 'resulting suspension' should be administered within 15 minutes for enteral administration. This is an unlicensed use of a licensed medication • Administration of riluzole through enteral tubes will have to be a clinical decision on an individual basis. There have been reports of crushed riluzole tablet suspension blocking enteral feeding tubes, so ensure the tube is flushed with at least 30mls sterile water after administration
	Additional information	**Patients with dysphagia (swallowing difficulties)** Please contact the MND specialists should the patient become dysphagic and subsequently unable to swallow tablets.

5. Supporting evidence	TA20 Guidance on the use of Riluzole (Rilutek) for the treatment of Motor Neurone Disease NG 42 - Motor neurone disease: assessment and management
6. Initiation and ongoing dosage regimen	The license dosage of riluzole is 100mg per day (50mg twice per day).
7. Contraindications and Warnings:	Please see SPC for comprehensive information. **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, or with 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. • Renal Impairment (due to lack of data).
8. Baseline investigations, initial monitoring and ongoing monitoring to be undertaken by specialist	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 the GP. Liver function tests (LFTs) – including serum transaminsases, bilirubin and gamma-glutamyl transferase Urea and Electrolytes (U&Es) Full blood count (FBC) – including a differential white cell count (WCC) **Ongoing monitoring:** Routine review to assess effectiveness and ongoing appropriateness of treatment every 6 months, or as clinically indicated.

9. Ongoing monitoring requirements to be undertaken by primary care	Monitoring	Frequency
	LFTs, FBC & WCC	Every month during the first 3 months of treatment, then every 3 months for the remainder of the first year. NB: where monthly or quarterly monitoring is performed in secondary care prior to transfer, there is no need to repeat individual tests. Annually after the first year.

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<table>
<tr><td rowspan="3">10. Interactions</td><td colspan="2">The following drugs are known or suspected interactions and the GP may wish to discuss with the initiating specialist before commencing:</td></tr>
<tr><td>Interacting Drug</td><td>Advice</td></tr>
<tr><td colspan="2">No interacting drugs are known, but as riluzole is metabolised by the liver the potential for interactions should be considered.</td></tr>
<tr><td></td><td colspan="2">Other interacting agents: nil know
If immunosuppressant include vaccines info here
For full list see SPC at www.medicines.org.uk/emc and BNF</td></tr>
<tr><td rowspan="9">11. Adverse effects and management</td><td>Adverse effects</td><td>Action for GP</td></tr>
<tr><td>Altered LFTs: Elevated up to 5 times ULN</td><td>Continue riluzole and discuss with specialist. Increase monitoring frequency if ALT is elevated</td></tr>
<tr><td>ALT greater than 5 time ULN</td><td>Stop riluzole and inform specialist. Riluzole should not be restarted</td></tr>
<tr><td>Respiratory function
Dry cough or dyspnoea</td><td>Order chest x-ray. Stop riluzole immediately if findings are suggestive of interstitial lung disease. Inform specialist of findings.</td></tr>
<tr><td>Haematological parameters
Febrile illness</td><td>Check WCC. Treat febrile illness according to local pathways. Arrange for immediate hospital assessment if neutropenic sepsis is suspected.</td></tr>
<tr><td>Confirmed neutropenia (Neutrophil<2.0)</td><td>Stop riluzole and inform specialist. Review patient for signs and symptoms of infection and treat or refer according to local pathways, as appropriate. Arrange for immediate hospital assessment if neutropenic sepsis is suspected.</td></tr>
<tr><td>Decreased WCC to below lower limit of local reference range (WCC <3.5)</td><td>If clinical evidence of febrile illness/neutropenia, stop riluzole and treat or refer according to local pathways, as appropriate. Arrange for immediate hospital assessment if neutropenic sepsis is suspected.
In the absence of febrile illness or clinical signs of neutropenia, seek advice from specialist.</td></tr>
<tr><td colspan="2">The most commonly reported adverse reactions were:
GI disturbance – nausea, diarrhoea, abdominal pain and vomiting.
Abnormal liver function tests - increased alanine aminotransferase usually appears within 3 months after the start of therapy with riluzole; they are usually transient and levels return to below twice the ULN after 2 to 6 months while treatment was continued. These increases could be associated with jaundice.
Headache, oral paraesthesia, somnolence, tachycardia and asthenia</td></tr>
</table>

	Other adverse effects include • **Anaemia** **Dizziness and Vertigo –** patients should be advised if affected not to drive or operating machinery
12. Advice to patients and carers 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 GP without delay:** • Signs or symptoms of infection, such as fever, chills or shivering, or flu-like symptoms • Dry cough and/or dyspnoea Patient information • MND association riluzole information leaflet https://www.mndassociation.org/app/uploads/2015/07/5A-Riluzole.pdf • NHS.uk. Low white blood cell count https://www.nhs.uk/conditions/low-white-blood-cell-count/
13. Preconception, Pregnancy, paternal exposure and breast feeding 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 GP and the specialist.	**Preconception** If a patient on riluzole is planning a pregnancy the specialist service should be informed. **Pregnancy:** Riluzole in contraindicated in pregnancy due to lack of data on pregnancy **Breastfeeding:** Riluzole is contraindicated in breast-feeding women. Very limited published evidence indicates low levels in breast milk. **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.
14. Specialist contact information	Name: *Dr Nandakumar or other consultant neurologist as specified in clinic letter* Role and specialty: *Consultant Neurologist* Daytime telephone number: *via HUTH switchboard (01482 875875) or details as per clinic letter* Email address: *as per clinic letter.* Alternative contact: Motor Neurone Disease Specialist Nurse (Hull and East Riding CCG patients only) – Vanessa Baker (01482) 816781 Neurology Specialist Pharmacist: Priscilla Kanyoka priscilla.kanyoka1@nhs.net Interface Pharmacist: Jane Morgan 01482 461519 or jane.morgan14@nhs.net

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	Out of hours contact details: *contact oncall registrar or consultant for neurology via switchboard (01482 875875)*
15. Local arrangements for referral Define the referral procedure from hospital to primary care prescriber & route of return should the patient's condition change.	For urgent enquiries contact on call neurologist via switchboard. Advice and guidance can be sought via A&G portal for non-urgent enquiries.
16. To be read in conjunction with the following documents	https://www.england.nhs.uk/wp-content/uploads/2018/03/responsibility-prescribing-between-primary-secondary-care-v2.pdf

Document and version control	**This information is not inclusive of all prescribing information and potential adverse effects. Please refer to the SPC (data sheet) or BNF for further prescribing information.**		
	Date approved by Guidelines and SCF Group:		20/4/22
	Date approved by APC:		22/6/22
	Review date:		June 2025
Version number	Author	Job title	Revision description:
1	Jane Morgan	Principal Pharmacist HUTH	New document – current document approved by both APCs transferred to new template and merged with additional information from RMOC draft document