

## SHARED CARE GUIDELINE FOR RILUZOLE IN THE MANAGEMENT OF MOTOR NEURONE DISEASE (MND) SPECIFICALLY AMYOTROPHIC LATERAL SCLEROSIS (ALS)

### INDICATION

This shared care guideline has been prepared to support the transfer of responsibility for prescribing Riluzole from secondary to primary care.

It is intended to apply to patients who have been initiated on treatment by a neurological specialist experienced in the management of motor neurone disease (MND) in accordance with the guidance published by the National Institute for Health and Care Excellence (TA 20, January 2001), <https://www.nice.org.uk/guidance/ta20> and NICE NG42 Motor Neurone Disease: assessment and management, <https://www.nice.org.uk/guidance/ng42/>.<sup>1,2</sup>

Riluzole is indicated to extend life or the time to mechanical ventilation for patients with the amyotrophic lateral sclerosis (ALS) form of Motor Neurone Disease.<sup>3</sup>

Clinical trials have demonstrated that Riluzole extends survival for patients with ALS. Survival was defined as patients who were alive, not intubated for mechanical ventilation and tracheotomy-free. There is no evidence that Riluzole improves motor function, lung function, fasciculations, muscle strength or motor symptoms.

It is not appropriate to use Riluzole in patients with severe disability at diagnosis or in patients entering the terminal phase of their disease. Riluzole has not been shown to benefit patients with other forms of motor neurone disease such as primary lateral sclerosis.

### AREAS OF RESPONSIBILITY FOR SHARED CARE

This shared care agreement outlines suggested ways in which the responsibilities for managing the prescribing of Riluzole can be shared between the specialist setting and the patient's GP. GPs are invited to participate. If the GP is not confident to undertake these roles, then he or she is under no obligation to do so. In such an event, the total clinical responsibility for the patient for the diagnosed condition remains with the specialist. If a specialist asks the GP to prescribe this drug, the GP should reply to this request as soon as practicable.

Sharing of care assumes communication. The intention to share care is usually explained to the patient by the doctor initiating treatment. It is important that patients are consulted about treatment and are in agreement with it.

The doctor who prescribes the medication legally assumes clinical responsibility for the drug and the consequences of its use.

### REFERRAL AND INITIATION

Shared Care is only appropriate if it provides the optimum solution for the patient.

Patients will only be referred to the GP once the GP has agreed in each individual case

<b>Specialist Responsibilities</b>	
1	To assess the patient and establish the diagnosis of Motor Neurone Disease of the amyotrophic lateral sclerosis type.
2	Determine a management strategy and ensure follow-up in conjunction with the GP.
3	Where appropriate: <ul style="list-style-type: none"> <li>• to assess suitability of the patient for treatment;</li> <li>• carry out baseline / pre-treatment blood count and liver function tests;</li> <li>• to initiate and stabilise the patient on treatment, providing at least 28 days treatment;</li> <li>• obtain consent from the patient's GP to continue prescribing once treatment has been stabilised;</li> <li>• monitor the patient and their therapy at appropriate intervals;</li> <li>• ensure therapy is discontinued where applicable.</li> </ul>
4	Ensure that patients know what to do and who to contact if they experience adverse events or an exacerbation of their condition.
5	To provide the GP with appropriate prescribing information (including length of course) and any additional information requested.
6	To agree with the GP arrangements for ongoing monitoring to ensure the safe use of Riluzole. This should include responsibility for undertaking the necessary blood count and liver function tests
7	To be available for advice if the patient's condition changes and to arrange follow up in neurology clinic at intervals to monitor the progress of the disease and review the continued use of Riluzole ensuring appropriate feedback with clear actions to the GP.
8	To ensure procedures are in place for the rapid re-referral of the patient by the GP.
9	To ensure the patient has given informed consent to their treatment.
10	To inform the GP when it is considered appropriate to discontinue treatment.
<b>General Practitioner Responsibilities</b>	
1	Initially, to refer the patient to neurologist for diagnosis.
2	To prescribe Riluzole after the initial one month period.
3	Where appropriate, continue to prescribe Riluzole.
4	Following completion of baseline monitoring in secondary care ensure monthly blood tests, FBC (including differential WBC), U&E and LFT (including ALT), for the first three months of treatment then three monthly up to one year – more frequently if patient develops raised ALT levels. After the initial 12 months of therapy ensure FBC (including differential WBC) and LFTs are repeated annually.
5	To deal with general health issues of the patient.
6	Report any adverse events to the consultant or specialist nurse and stop treatment on their advice or immediately if an urgent need arises.
7	If respiratory symptoms develop such as dry cough and/or dyspnoea, chest radiography should be performed, and in case of findings suggestive of interstitial lung disease (e.g. bilateral diffuse lung opacities), Riluzole should be discontinued immediately.

<b>Patient's role (or that of carer)</b>	
1	Report to the specialist or GP if he/she does not have a clear understanding of the treatment.
2	Attend appropriate consultant and GP appointments
3	Share any concerns in relation to treatment with Riluzole
4	Read any written information on the medication for example Patient Information leaflet.
5	Seek help urgently if suspected side effects appear, or otherwise unwell.
6	To report any febrile illness or respiratory symptoms to their GP or specialist

## **SUPPORTING INFORMATION**

### **Dosage and Administration**

The usual dose of Riluzole (Rilutek) is 50mg twice daily with doses 12 hours apart. No significant increased benefit can be expected from higher daily doses.

The liquid formulation of Riluzole should be reserved for use in patients identified by specialist nurses who have bulbar symptoms and risk of dysphagia or bulbar symptoms and poor compliance secondary to dysphagia.

Riluzole (Teglutik®) is available in liquid form oral suspension 5mg/ml with a usual dose of 10ml twice daily.

### **Contraindications**

Riluzole is contra-indicated in patients with:

- hepatic disease or baseline transaminases greater than 3 times the upper limit of normal;
- patients who are pregnant or breast-feeding;
- impaired renal function.
- severe hypersensitivity to Riluzole or the excipients

In addition to the above contra-indications, Riluzole is not recommended for use in the paediatric population.

### **Special Precautions/Warnings**

#### **Liver impairment**

Riluzole should be prescribed with care in patients with a history of abnormal liver function, or in patients with slightly elevated serum transaminases (ALT/SGPT; AST/SGOT up to 3 times the upper limit of the normal range (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

Because of the risk of hepatitis, serum transaminases, including ALT, should be measured before and during therapy with Riluzole. ALT should be measured every month during the first 3 months of treatment, every 3 months during the remainder of the first year, and

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

Riluzole should be discontinued if the ALT levels increase to 5 times the ULN. There is no experience with dose reduction or rechallenge in patients who have developed an increase of ALT to 5 times ULN. Readministration of Riluzole to patients in this situation cannot be recommended.

#### Neutropenia

Patients should be warned to report any febrile illness to their physicians. The report of a febrile illness should prompt physicians to check white blood cell counts and to discontinue Riluzole in case of neutropenia.

#### Interstitial lung disease

Cases of interstitial lung disease have been reported in patients treated with Riluzole, some of them were severe. If respiratory symptoms develop such as dry cough and/or dyspnoea, chest radiography should be performed, and in case of findings suggestive of interstitial lung disease (e.g. bilateral diffuse lung opacities), Riluzole should be discontinued immediately. In the majority of the reported cases, symptoms resolved after medicinal product discontinuation and symptomatic treatment.

#### Effects on ability to drive and use machines

Patients should be warned about the potential for dizziness or vertigo, and advised not to drive or operate machinery if these symptoms occur.

No studies on the effects on the ability to drive and use machines have been performed.

#### Side effects

Very common side effects are nausea, abnormal liver function tests and asthenia. Side effects commonly experienced include headache, dizziness, oral paraesthesia, somnolence, tachycardia, diarrhoea, abdominal pain, vomiting and pain, See SPCs for more details.

**This list is not exhaustive. The manufacturer's summary of product characteristics (SPC) and the most current edition of the British National Formulary should be consulted for full information on contra-indications, warnings, side-effects and drug interactions.**

#### Annual drug costs:

Riluzole oral tablet generic cost based on 50mg twice a day = £245.

Riluzole (Rilutek®) Oral Tablet cost based on 50mg twice a day = £4,176

Riluzole (Teglutik®) Oral liquid cost based on 10ml twice a day = £2,433.

Prices correct as September 2016 BNF and Drug Tariff Online.

**References**

1. National Institute for Health and Care Excellence, TA20 Guidance on the use of Riluzole (Rilutek) for the treatment of Motor Neurone Disease. Jan 2001.
2. National Institute for Health and Care Excellence, NG 42 Motor neurone disease: assessment and management. Feb 2016.
3. Summary of product characteristics for Riluzole (Rilutek®) last updated December 2013 <http://www.medicines.org.uk> Accessed August 2016
4. Summary of product characteristics for Riluzole (Teglutik®) last updated July 2015 accessed August 2016 <http://www.medicines.org.uk>
5. Information on Tegultik last accessed August 2016 <https://www.medicinescomplete.com>
6. eBNF August 16  
<https://www.evidence.nhs.uk/formulary/bnf/current#Search?q=riluzole>
7. Drug Tariff Online September 2016 [http://www.drugtariff.nhsbsa.nhs.uk/#/00346963-DC/DC00346355/Part VIII A products R](http://www.drugtariff.nhsbsa.nhs.uk/#/00346963-DC/DC00346355/Part%20VIII%20products%20R)

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