NHS North Lancashire

NHS Cumbria

North Cumbria University Hospitals NHS Trust

University Hospitals of Morecambe Bay NHS Trust

# SHARED CARE GUIDELINE

Drug: RILUZOLE

| Contact Details | Patient ID Label |
|---|---|
| **Name:** _____ | **Surname:** _____ |
| **Location:** _____ | **Forename/s:** _____ |
| **Date:** _____ | **NHS Number:** _____ |
| **Tel ☎:** _____ | **Date of Birth:** _____ |

## Introduction

**Indication:**

To extend life or the time to mechanical ventilation for patients with amyotrophic lateral sclerosis (ALS).

Safety and efficacy of riluzole has only been studied in ALS. Therefore, riluzole should not be used in patients with any other form of motor neurone disease.

Riluzole should only be initiated by a neurological specialist with expertise in the management of motor neurone disease (MND) (as per NICE TA 20, 2001).

**Background:** ALS is the most common variant of MND accounting for 65% to 85% of all cases. It is a progressive, fatal neurodegenerative disorder with a median survival of 37 to 49 months. It is characterised by progressive deterioration of muscle tissue (amylotrophy), resulting in both upper and lower motor neurone signs.

Death usually results from ventilatory failure, resulting from progressive weakness and wasting of respiratory and bulbar muscles within approximately 3 years of the onset of symptoms.

Although the pathogenesis of ALS is not completely elucidated, it is hypothesised that excessive stimulation of glutamate receptors on neurones may cause or play an important role in the destruction of motor neurones in MND.

In vitro, riluzole inhibits the release of glutamate; decreases firing of motor neurones induced by glutamate receptor agonists and thus protects cells from glutamate-mediated damage.

Riluzole is the only drug currently licensed for the treatment of ALS however symptomatic management, supportive, and palliative care are also available for patients with ALS.

## Dose & Administration

The recommended dose is 50mg twice daily.

Tablets should be taken 12 hours apart, on an empty stomach (1hour before or 2 hours after food).

If there are problems swallowing, the tablets may be crushed and mixed with a teaspoon of sugar to aid swallowing (off label use).However, when crushed, the drug can produce a temporary numbing effect in the mouth. It may be easier to swallow if crushed and mixed with a soft food product such as a puree, yoghurt, ice cream or a thick beverage and eaten in the usual way. Once it is crushed it should be taken immediately due to limited stability problems.

Patients should be aware that they will not experience any subjective benefit from taking the medication and may experience unwanted side effects.

## Secondary Care Responsibilities

1. Confirm the diagnosis of MND.
2. Assess the need for and appropriateness of riluzole.



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| | 3. Discuss the benefits and side effects of treatment with the patient.<br>4. Perform pre-treatment screening (full blood count and serum transaminases).<br>5. Prescribe and monitor riluzole for at least three months to establish efficacy and safety (FBC (including differential WBC), U&E and LFT (incl ALT) monthly for the first three months of treatment).<br>6. Arrange shared care with the patient's GP.<br>7. Review the patient regularly to monitor the patient's response to therapy.<br>8. Request copies of test results for the patient's GP by completing the "copy to" section on the pathology form.<br>9. Advise patients or their carers how to recognise signs of neutropenia and advise them to seek immediate medical attention if symptoms such as fever occur.<br>10. Ensure that clear backup arrangements exist for GPs to obtain advice.<br>11. Promptly inform the GP of any changes in treatment following hospital admission or out-patient consultation. |
| **Primary Care Responsibilities** | 1. Provide the patient with prescriptions for riluzole 50mg tablets after the initial minimum three months treatment.<br>2. Monitor the patient's overall health and well being and report signs of disease progression to the consultant or the specialist nurse.<br>3. Arrange ongoing monitoring at the recommended frequencies (see MONITORING below).<br>4. Request copies of test results for the patient's consultant by completing the "copy to" section on the pathology form.<br>5. Report any adverse events to the consultant or specialist nurse and stop treatment on their advice or immediately if an urgent need arises.<br>6. Report any serious suspected adverse events to the MHRA.<br>7. Advise patients and their carers on how to recognise signs of neutropenia and to seek immediate medical attention if symptoms such as fever occur.<br>8. Report **any febrile illness** to the specialist team and check the white blood cell count.<br>9. Symptomatic management of minor adverse effects. |
| **Monitoring Required in Primary Care** | After the initial minimum three months prescribed by secondary care:<br>• FBC (including differential WBC) and LFTs every three months for a further nine months then repeat annually<br>Discontinue riluzole and seek advice if:<br>• ALT levels increase to five times the upper limit of normal range (≥ 225 IU/L)<br>• There is evidence of neutropenia |
| **Adverse Effects** | The most common side effects are:<br>• Gastrointestinal upsets including nausea, anorexia, constipation, diarrhoea<br>• Tiredness and fatigue (asthenia)<br>• Headache, dizziness, somnolence (patients should be warned about not driving or operating machinery if affected)<br>• Tachycardia<br>• Elevation of ALT levels |

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| | It is estimated that approximately 10% of patients are likely to experience side effects of such intensity that they consider discontinuing the drug.<br><br>Anaphylactoid reaction, angio-oedema, neutropenia and pancreatitis have been reported rarely<br><br>If respiratory symptoms develop e.g., 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.<br><br>Any reports of febrile illness should result in discontinuation of riluzole and differential FBC to assess for neutropenia<br><br>Patients should be warned about the potential for dizziness or vertigo, and advised not to drive or operate machinery if these symptoms occur<br><br>Always consult the latest version of the Summary of Product Characteristics (SPC) at www.medicines.org.uk for full details |
| **Common Drug Interactions** | There have been no clinical studies to evaluate the interactions of riluzole with other medicinal products.<br><br>However, as riluzole is metabolised by the liver, there is a possibility that it may interact with:<br><br>• CYP1A2 inhibitors that may potentially decrease the rate of riluzole eliminations e.g. diclofenac, diazepam, clomipramine, imipramine, theophylline, amitriptyline and quinolones<br><br>• CYP1A2 Inducers that could increase the rate of riluzole elimination *e.g.* cigarette smoke, charcoal broiled food, rifampicin and omeprazole. |
| **Contra-indications** | • Previous history of liver disease or if their baseline ALT/AST levels are greater than three times the upper limit of normal<br><br>• Impaired renal function<br>• Previous allergic reaction to riluzole<br>• Neutropenia<br>• Signs of dementia and/or major psychiatric disorders<br>• May be pregnant or are breastfeeding<br>• Unlikely to comply with the requirements of treatment i.e., blood tests |
| **This guidance does not replace the SPC, which should be read in conjunction with this guidance.** | |