GIG CYMRU NHS WALES

Pwyllgor Gwasanaethau Iechyd Arbenigol Cymru (PGIAC)

Welsh Health Specialised Services Committee (WHSSC)

Specialised Services Policy Position PP191

Nusinersen for treating spinal muscular atrophy

January 2022

Version 2.0

PARCH - RESPECT

PARTNERIAETH - PARTNERSHIP

GWELLA AC ARLOESI - IMPROVEMENT & INNOVATION

Document information	
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Author	Welsh Health Specialised Services Committee
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Commissioning Team	Women and Children
Target audience	Chief Executives, Medical Directors, Directors of Finance, Paediatric Neurologists, Neurologists, Neurosurgeons, Chief Pharmacists.
Description	NHS Wales will routinely commission this specialised service in accordance with the criteria described in this policy
Document No	PP191
Review Date	2026

Contents

Policy Statement

Welsh Health Specialised Services Committee (WHSSC) will commission nusinersen for children up to 17 years old with spinal muscular atrophy in accordance with the criteria outlined in this document.

In creating this document WHSSC has reviewed the relevant guidance issued by the National Institute of Health and Care Excellence (NICE) and has concluded that nusinersen should be made available.

Disclaimer

WHSSC assumes that healthcare professionals will use their clinical judgment, knowledge and expertise when deciding whether it is appropriate to apply this policy position statement.

This policy may not be clinically appropriate for use in all situations and does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

WHSSC disclaims any responsibility for damages arising out of the use or non-use of this policy position statement.

1. Introduction

This Policy Position Statement has been developed for the planning and delivery of nusinersen for treating spinal muscular atrophy for children up to 17 years old resident in Wales. This service will only be commissioned by the Welsh Health Specialised Services Committee (WHSSC) and applies to residents of all seven Health Boards in Wales. Nusinersen for treating spinal muscular atrophy for adults is the commissioning responsibility of the Health Boards in Wales.

1.1 Plain language summary

Spinal muscular atrophy (SMA) is a rare, progressive neuromuscular disease caused by a genetic mutation in the SMN1 gene on chromosome 5q. People with the condition have a range of symptoms, including muscle weakness, and have worsening physical disability, mobility loss and respiratory dysfunction.

SMA can be grouped into 5 main types (types 0 to 4), based on the age of onset and the maximum motor function reached.

Type 0 SMA is the most severe and affects babies before birth. The babies do not develop any motor skills and often survive for only a few weeks after birth.

Type 1 SMA affects children in the first 6 months of life. These children are unable to sit or roll because of severe muscle weakness, which gets worse over time. The muscle weakness also affects swallowing and breathing, and typically results in death within 2 years.

Type 2 SMA, the onset of symptoms for this type is between 7 months and 18 months. Children with this condition can sit independently at diagnosis. However, progressive loss of motor function means they have a reduced life expectancy compared with the general population.

Type 3 SMA, there are varying degrees of muscle weakness, which appear between 18 months and 18 years. People with this condition can have a normal lifespan, and walk or sit unaided at some point, but many lose mobility over time.

Type 4 SMA, the least severe, affects adults, who may have only mild motor impairment and live a normal lifespan.

Clinical experts suggested that, of all diagnosed cases of SMA, around 60% are type 1 and around 40% are types 2 and 3. Types 0 and 4 are rarely diagnosed.

It is estimated there are there are between 600 and 1200 children and adults in the UK living with SMA.

Antisense oligonucleotide drugs (ASOs) are small snippets of synthetic genetic material that bind to ribonucleic acid (RNA). They are often described as molecular patches because they can be specifically designed to target and affect how a particular gene is read. ASOs have great potential for SMA, because they can accurately target the SMN2 gene to essentially convert it into the SMN1 gene, i.e. they are small molecules "patching-up" SMN2 to act more like SMN1. So they can be used to fix splicing errors in genes such as SMN2. They do this by binding to the RNA template made by SMN2 and enhancing the inclusion of exon 7 into the SMN protein.

Nusinersen is an antisense oligonucleotide that targets SMN2, causing it to make more complete SMN protein[1].

1.2 Aims and Objectives

This Policy Position Statement aims to define the commissioning position of WHSSC on the use of nusinersen for children up to 17 years old with spinal muscular atrophy.

The objectives of this policy are to:

- ensure commissioning for the use of nusinersen is evidence based
- ensure equitable access to nusinersen
- define criteria for people with spinal muscular atrophy to access treatment
- improve outcomes for people with spinal muscular atrophy

1.3 Current Treatment

Current treatments for spinal muscular atrophy are based on symptom control and aim to maintain movement and function for as long as possible and to improve quality of life. This involves a multidisciplinary approach including respiratory, gastroenterology and orthopaedic care, as well as nutritional support, physiotherapy, assistive technologies, occupational therapy and social care.

1.4 Proposed Treatment

Nusinersen, which is marketed as Spinraza™, is the first available disease-modifying treatment for 5q SMA, which includes SMA Type 1, 2 3 and 4. It is an antisense oligonucleotide designed to modify the product of the SMN2 "backup" gene to produce more functional SMN protein.

[1] https://smauk.org.uk/more-detail-on-how-nusinersen-works-in-sma

1.5 What NHS Wales has decided

WHSSC has carefully reviewed the relevant guidance issued by National Institute of Health and Care Excellence (NICE). We have concluded that there is enough evidence to fund the use of nusinersen for treating spinal muscular atrophy, within the criteria set out in section 2.1.

2. Criteria for Commissioning

The Welsh Health Specialised Services Committee approve funding of nusinersen for treating children up to 17 years old with spinal muscular atrophy in-line with the criteria identified in the policy. Commissioning of nusinersen for adults is the responsibility of Health Boards.

2.1 Inclusion Criteria

Nusinersen is recommended as an option for treating 5q spinal muscular atrophy (SMA) only if:

- they are a child aged between 0-17 years old
- people have pre-symptomatic SMA, or SMA types 1, 2 or 3, **and**
- the conditions in the Managed Access Agreement (MAA) are followed.

2.2 Exclusion Criteria

- People aged 18 years and older[2].

2.3 Continuation of Treatment

Healthcare professionals are expected to review a patient's health at regular intervals to ensure they are demonstrating stability in their condition due to the treatment being given.

If a deterioration to a patient's health has been recorded the treating healthcare professionals would follow the criteria set in the NICE MAA document for discontinuation of treatment.

2.4 Acceptance Criteria

The service outlined in this specification is for patients ordinarily resident in Wales, or otherwise the commissioning responsibility of the NHS in Wales. This excludes patients who whilst resident in Wales, are registered with a GP practice in England, but includes patients resident in England who are registered with a GP Practice in Wales.

2.5 Patient Pathway (Annex i)

Patients should be referred for assessment of eligibility for treatment to a Paediatric Neurologist or a Paediatric Neurosurgeon at the following centres:

Children's Hospital for Wales, Cardiff or Alder Hey Children's Hospital, Liverpool.

Treatment cannot commence until the patient and/or their parent or guardian has signed the MAA.

[2] Commissioning responsibility of nusinersen for people aged 18 years and older lies with Health Boards.

2.6 Exceptions

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

If the patient wishes to be referred to a provider outside of the agreed pathway, and IPFR should be submitted.

Further information on making IPFR requests can be found at: Welsh Health Specialised Services Committee (WHSSC) | Individual Patient Funding Requests

2.7 Clinical Outcome and Quality Measures

The Provider must work to written quality standards and provide monitoring information to the lead commissioner.

The centre must enable the patient's, carer's and advocate's informed participation and to be able to demonstrate this. Provision should be made for patients with communication difficulties and for children, teenagers and young adults.

The Provider must comply with the requirements of the NICE MAA which includes mandated participation in the 'SMA reach' clinical outcome tool.

2.8 Responsibilities

Referrers should:

- inform the patient that this treatment is not routinely funded outside the criteria in this policy, and
- refer via the agreed pathway.

Clinician considering treatment should:

- discuss all the alternative treatment with the patient;
- advise the patient of any side effects and risks of the potential treatment
- inform the patient that treatment is not routinely funded outside of the criteria in the policy, and
- confirm that there is contractual agreement with WHSSC for the treatment
- provide WHSSC with notification of the commencement of treatment.

In all other circumstances an IPFR must be submitted.

3. Documents which have informed this policy

The following documents have been used to inform this policy:

- **National Institute of Health and Care Excellence (NICE) guidance**
  - Nusinersen for treating spinal muscular atrophy Technology appraisal guidance [TA588] Published date: 24 July 2019

This document should be read in conjunction with the following documents:

- **NHS Wales**
  - All Wales Policy: Making Decisions in Individual Patient Funding requests (IPFR).

4. Date of Review

This document will be reviewed when information is received which indicates that the policy requires revision.

5. Putting Things Right:

5.1 Raising a Concern

Whilst every effort has been made to ensure that decisions made under this policy are robust and appropriate for the patient group, it is acknowledged that there may be occasions when the patient or their representative are not happy with decisions made or the treatment provided.

The patient or their representative should be guided by the clinician, or the member of NHS staff with whom the concern is raised, to the appropriate arrangements for management of their concern.

If a patient or their representative is unhappy with the care provided during the treatment or the clinical decision to withdraw treatment provided under this policy, the patient and/or their representative should be guided to the LHB for NHS Putting Things Right. For services provided outside NHS Wales the patient or their representative should be guided to the NHS Trust Concerns Procedure, with a copy of the concern being sent to WHSSC.

5.2 Individual Patient Funding Request (IPFR)

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

If an IPFR is declined by the Panel, a patient and/or their NHS clinician has the right to request information about how the decision was reached. If the patient and their NHS clinician feel the process has not been followed in accordance with this policy, arrangements can be made for an independent review of the process to be undertaken by the patient's Local Health Board. The ground for the review, which are detailed in the All Wales Policy: Making Decisions on Individual Patient Funding Requests (IPFR), must be clearly stated

If the patient wishes to be referred to a provider outside of the agreed pathway, an IPFR should be submitted.

Further information on making IPFR requests can be found at: Welsh Health Specialised Services Committee (WHSSC) | Individual Patient Funding Requests

6. Equality Impact and Assessment

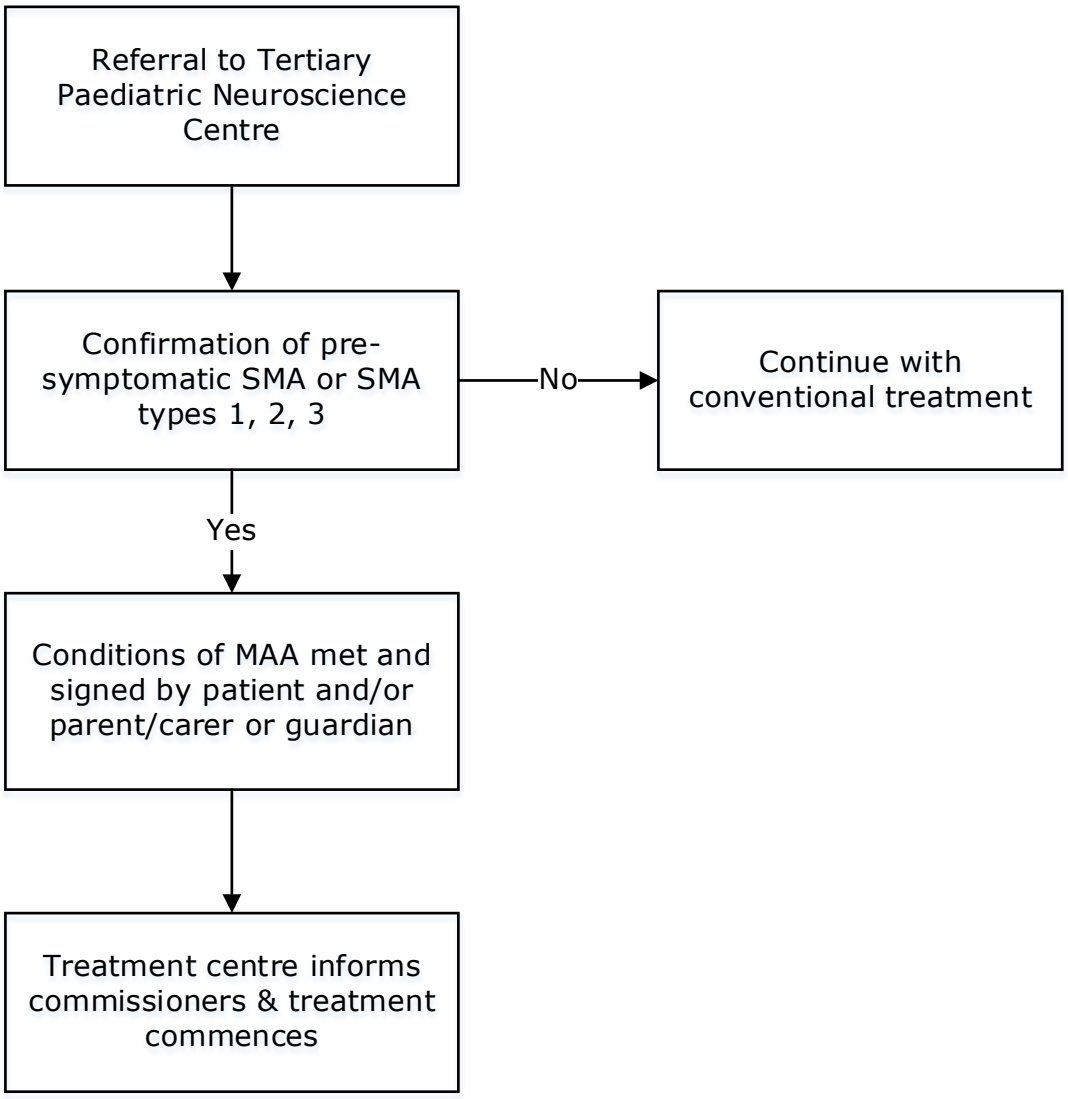
The Equality Impact Assessment (EQIA) process has been developed to help promote fair and equal treatment in the delivery of health services. It aims to enable Welsh Health Specialised Services Committee to identify and eliminate detrimental treatment caused by the adverse impact of health service policies upon groups and individuals for reasons of race, gender re-assignment, disability, sex, sexual orientation, age, religion and belief, marriage and civil partnership, pregnancy and maternity and language (Welsh).

This policy has been subjected to an Equality Impact Assessment.

The Assessment demonstrates the policy is robust and there is no potential for discrimination or adverse impact. All opportunities to promote equality have been taken.

Annex i Patient Pathway

Nusinersen for treating spinal muscular atrophy for children up to 17 years old



Annex ii Codes

Code Category	Code	Description
ICD	G12	Spinal muscular atrophy and related syndromes.

Annex iii Abbreviations and Glossary

Abbreviations

ASO's Antisense oligonucleotide drugs

IPFR Individual Patient Funding Request

NICE National Institute of Health and Care Excellence

RNA Ribonucleic Acid

SMA Spinal Muscular Atrophy

WHSSC Welsh Health Specialised Services Committee

Glossary

Antisense

This is the non-coding DNA strand of a gene. A cell uses antisense DNA strand as a template for producing messenger RNA (mRNA) that directs the synthesis of a protein. Antisense can also refer to a method for silencing genes. To silence a target gene, a second gene is introduced that produces an mRNA complementary to that produced from the target gene. These two mRNAs can interact to form a double-stranded structure that cannot be used to direct protein synthesis.

Individual Patient Funding Request (IPFR)

An IPFR is a request to Welsh Health Specialised Services Committee (WHSSC) to fund an intervention, device or treatment for patients that fall outside the range of services and treatments routinely provided across Wales.

National Institute of Health and Care Excellence

The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care.

Ribonucleic acid (RNA)

This is a molecule similar to DNA. Unlike DNA, RNA is single-stranded. An RNA strand has a backbone made of alternating sugar (ribose) and phosphate groups. Attached to each sugar is one of four bases--adenine (A), uracil (U), cytosine (C), or guanine (G). Different types of RNA exist in the cell: messenger RNA (mRNA), ribosomal RNA (rRNA), and transfer RNA (tRNA). More recently, some small RNAs have been found to be involved in regulating gene expression.

Welsh Health Specialised Services Committee (WHSSC)

WHSSC is a joint committee of the seven local health boards in Wales. The purpose of WHSSC is to ensure that the population of Wales has fair and equitable access to the full range of Specialised Services and Tertiary

Services. WHSSC ensures that specialised services are commissioned from providers that have the appropriate experience and expertise. They ensure that these providers are able to provide a robust, high quality and sustainable services, which are safe for patients and are cost effective for NHS Wales.

Appendix 1 Prior Approval Request Form

PRIOR APPROVAL REQUEST FORM

Details of clinician making the referral:	
Name:	
Designation:	
Address:	
Postcode:	
Telephone number:	
Email:	
Secretary name:	
Telephone:	Email:

Patient Details	
First name:	Last name:
Address:	Date of birth:
	NHS number:
Postcode:	Hospital number:

Urgency			
How urgent is the request? (tick as applicable)	**Urgent:** 24-48 hours	**Soon:** Within 3 weeks	**Non-urgent:** 4-6 weeks

Please note: *If a decision is required urgently, clinical reasons must be provided. Administrative reasons will not be considered.*

Reason for request

- ☐ NICE Approved Drugs
- ☐ NICE Technology Appraisals and Highly Specialised Technology Appraisals
- ☐ AWMSG Health Technology Appraisals (including the orphan and ultra-orphan status)

Clinical details
Details of treatment requested (including weight of patient, dosage and duration)
Medical history and current clinical status -: (**Please provide a copy of the latest clinical report**)
Additional information to support the referral: (e.g. relevant clinical letters/reports)
Cost of treatment:

I confirm that as the patient's Consultant, I have discussed this application and consent has been provided to obtain further clinical information pertinent to this funding request if required.

Clinicians signature:

Date:

Please return this form with a copy of the referral letter to:

Please return completed form to:

Patient Care Team
Welsh Health Specialised Services
Unit G1, The Willowford
Treforest Industrial Estate
CF37 5YL

Email: whssc.ipc@wales.nhs.uk or whssc.ipc@nhs.net

If you have any questions, please telephone 01443 443443 ext.78123