

12.12 Nusinersen prescribing and administration requirements

1 Purpose of Item

- 1.1 To request that the PBAC consider an amendment to the current listing for nusinersen to allow nusinersen to be prescribed in a private hospital setting.

2 Background

- 2.1 At the March 2018 meeting, the PBAC recommended the Section 100 (Highly Specialised Drugs Program) listing of nusinersen for the treatment of paediatric patients with infantile-onset or childhood onset Spinal Muscular Atrophy (SMA) with onset of symptoms prior to 3 years of age. In making its decision, the PBAC also advised that further consultation with clinicians experienced in treating patients with SMA would be required to finalise the restriction (paragraph 6.15, Nusinersen March 2018 Public Summary Document).
- 2.2 In the consultation process, expert clinicians involved in the treatment of SMA advised that all hospitals in Australia with specialist neuromuscular clinics and clinicians with expertise in treating patients with SMA were public hospitals. Nusinersen was subsequently listed on the PBS on 1 June 2018 under Section 100 (Highly Specialised Drugs Program) with a listing for the Public Hospital setting only.

3 Current situation

- 3.1 Following the PBS listing of nusinersen, the Department received a request from a [REDACTED] to administer nusinersen in a private hospital setting to a patient with SMA undergoing a separate procedure under general anaesthetic. The request indicated that this would eliminate the requirement for the patient to be administered an additional dose of general anaesthetic, which would place the patient at higher risk.

4 PBAC Outcome

- 4.1 The PBAC recommended that the current Section 100 (Highly Specialised Drugs Program) Public Hospital listing for nusinersen be extended to include Section 100 (Highly Specialised Drugs Program) Private Hospitals.
- 4.2 In making this recommendation, the PBAC noted that the submission to list nusinersen considered at its March 2018 meeting proposed listing in the public and private hospital setting, however that expert clinical advice following the positive

recommendation to list advised that there was not a clinical need to list in the private hospital setting. Correspondence following the listing on the PBS indicated that there is a clinical need for prescribing in the private hospital setting.

- 4.3 The PBAC recommended that the extension to listing in the HSD Program in Private Hospitals should be cost neutral to the PBS.
- 4.4 The PBAC also noted that Princess Margaret Hospital (Perth), a recognised hospital in the management of SMA that is specified in the nusinersen restriction, has now been decommissioned and replaced by the Perth Children’s Hospital. The PBAC recommended that the hospital name in the nusinersen restrictions be updated accordingly.

5 Recommended listing

- 5.1 Extend the current listing of nusinersen to include a HSD Private Hospital listing as follows:

Name, Restriction, Manner of administration and form	Max. Qty	No. of Rpts	Proprietary Name and Manufacturer	
NUSINERSEN 12 mg/5 mL injection, 5 mL vial	1	3	Spinraza	Biogen Australia Pty Ltd

Category / Program	Section 100 – Highly Specialised Drugs Program (Private Hospital)
Prescriber type:	<input checked="" type="checkbox"/> Medical Practitioners
PBS Indication:	Spinal muscular atrophy (SMA)
Treatment phase:	Initial treatment – Loading doses
Restriction Level / Method:	<input checked="" type="checkbox"/> Authority Required - In Writing
Treatment criteria:	Must be treated by a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA; or in consultation with a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA.
Clinical criteria:	The condition must be 5q homozygous deletion, mutation of, or compound heterozygous mutation in the SMN1 gene of type I, II or IIIa, AND Patient must have experienced at least two of the defined signs and symptoms of SMA type I, II or IIIa prior to 3 years of age, AND The treatment must be given concomitantly with standard of care

	<p>for this condition,</p> <p>AND</p> <p>The treatment must not exceed four loading doses (at days 0, 14, 28 and 63) under this restriction.</p>
Population criteria:	Patient must be 18 years of age or under.
Prescriber Instructions	<p>Defined signs and symptoms of type I SMA are:</p> <ul style="list-style-type: none"> i) Onset before 6 months of age; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Hypotonia; or v) Absence of deep tendon reflexes; or vi) Failure to gain weight appropriate for age; or vii) Any active chronic neurogenic changes; or viii) A compound muscle action potential below normative values for an age-matched child. <p>Defined signs and symptoms of type II SMA are:</p> <ul style="list-style-type: none"> i) Onset between 6 and 18 months; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Weakness in trunk righting/derotation; or v) Hypotonia; or vi) Absence of deep tendon reflexes; or vii) Failure to gain weight appropriate for age; or viii) Any active chronic neurogenic changes; or ix) A compound muscle action potential below normative values for an age-matched child. <p>Defined signs and symptoms of type IIIa SMA are:</p> <ul style="list-style-type: none"> i) Onset between 18 months and 3 years of age; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Hypotonia; or v) Absence of deep tendon reflexes; or vi) Failure to gain weight appropriate for age; or vii) Any active chronic neurogenic changes; or viii) A compound muscle action potential below normative values for an age-matched child. <p>Recognised hospitals in the management of SMA are Lady Cilento Children’s Hospital (Brisbane), Royal Children’s Hospital Melbourne, Monash Children’s Hospital (Melbourne), John Hunter Hospital</p>

	<p>(Newcastle), Sydney Children’s Hospital Randwick, Children’s Hospital at Westmead, Adelaide Women and Children’s Hospital and Perth Children’s Hospital.</p> <p>Applications for authorisation of initial treatment must be in writing and must include:</p> <p>(a) a completed authority prescription form; and</p> <p>(b) a completed Spinal muscular atrophy PBS Authority Application - Supporting Information Form which includes the following:</p> <p>(i) specification of SMA type (I, II or IIIa); and</p> <p>(ii) sign(s) and symptom(s) that the patient has experienced; and</p> <p>(iii) patient’s age at the onset of sign(s) and symptom(s).</p>
Administrative Advice	<p>No increase in the maximum quantity or number of units may be authorised.</p> <p>No increase in the maximum number of repeats may be authorised.</p> <p>Special Pricing Arrangements apply.</p> <p>Any queries concerning the arrangements to prescribe may be directed to the Department of Human Services on 1800 700 270 (hours of operation 8 a.m. to 5 p.m. EST Monday to Friday).</p> <p>Prescribing information (including Authority Application forms and other relevant documentation as applicable) is available on the Department of Human Services website at www.humanservices.gov.au</p> <p>Applications for authority to prescribe should be forwarded to: Department of Human Services Complex Drugs Reply Paid 9826 HOBART TAS 7001</p>

Name, Restriction, Manner of administration and form	Max. Qty	No. of Rpts	Proprietary Name and Manufacturer	
NUSINERSEN 12 mg/5 mL injection, 5 mL vial	1	0	Spinraza	Biogen Australia Pty Ltd

Category / Program	Section 100 – Highly Specialised Drugs Program (Private Hospital)
Prescriber type:	<input checked="" type="checkbox"/> Medical Practitioners
Condition:	Spinal muscular atrophy (SMA)
PBS Indication:	Spinal muscular atrophy (SMA)
Treatment phase:	Continuing treatment – Maintenance

Restriction Level / Method:	<input checked="" type="checkbox"/> Authority Required – Telephone
Treatment criteria:	Must be treated by a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA; or in consultation with a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA.
Clinical criteria:	<p>Patient must have previously received PBS-subsidised treatment with this drug for this condition,</p> <p>AND</p> <p>The treatment must be given concomitantly with standard of care for this condition,</p> <p>AND</p> <p>The treatment must be ceased when invasive permanent assisted ventilation is required in the absence of a potentially reversible cause while being treated with this drug.</p>
Prescriber Instructions	<p>Recognised hospitals in the management of SMA are Lady Cilento Children’s Hospital (Brisbane), Royal Children’s Hospital Melbourne, Monash Children’s Hospital (Melbourne), John Hunter Hospital (Newcastle), Sydney Children’s Hospital Randwick, Children’s Hospital at Westmead, Adelaide Women and Children’s Hospital and Perth Children’s Hospital.</p> <p>Invasive permanent assisted ventilation means ventilation via tracheostomy tube for greater than or equal to 16 hours per day.</p>
Administrative Advice	<p>No increase in the maximum quantity or number of units may be authorised.</p> <p>No increase in the maximum number of repeats may be authorised.</p> <p>Special Pricing Arrangements apply.</p> <p>Authority applications for continuing treatment may be made by telephone to the Department of Human Services on 1800 700 270 (hours of operation 8 a.m. to 5 p.m. EST Monday to Friday).</p>

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NUSINERSEN 12 mg/5 mL injection, 5 mL vial	1	0	Spinraza Biogen Australia Pty Ltd

Category / Program	Section 100 – Highly Specialised Drugs Program (Private Hospital)
Prescriber type:	<input checked="" type="checkbox"/> Medical Practitioners
PBS Indication:	Spinal muscular atrophy (SMA)
Treatment phase:	Grandfather patients
Restriction Level / Method:	<input checked="" type="checkbox"/> Authority Required - In Writing
Treatment criteria:	Must be treated by a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA; or in consultation with a specialist medical practitioner experienced in the diagnosis and management of SMA associated with a neuromuscular clinic of a recognised hospital in the management of SMA.
Clinical criteria:	<p>Patient must have previously received non-PBS-subsidised treatment for this condition with this drug prior to 1 June 2018,</p> <p>AND</p> <p>The condition must be 5q homozygous deletion, mutation of, or compound heterozygous mutation in the SMN1 gene of type I, II or IIIa,</p> <p>AND</p> <p>Patient must have had experienced at least two of the defined signs and symptoms of SMA type I, II or IIIa prior to 3 years of age,</p> <p>AND</p> <p>Patient must have previously received at least one of the four loading doses at days 0, 14, 28 and 63,</p> <p>AND</p> <p>The treatment must be given concomitantly with standard of care for this condition,</p> <p>AND</p> <p>The treatment must be ceased when invasive permanent assisted ventilation is required in the absence of a potentially reversible cause while being treated with this drug.</p>
Population criteria:	Patient must have been 18 years of age or under at the time treatment with this drug was initiated for this condition;

	<p>OR</p> <p>Patient must have previously received treatment with this drug for this condition under the care of clinicians with the authorised prescriber number of AP17/83146.</p>
<p>Prescriber Instructions</p>	<p>Defined signs and symptoms of type I SMA are:</p> <ul style="list-style-type: none"> i) Onset before 6 months of age; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Hypotonia; or v) Absence of deep tendon reflexes; or vi) Failure to gain weight appropriate for age; or vii) Any active chronic neurogenic changes; or viii) A compound muscle action potential below normative values for an age-matched child. <p>Defined signs and symptoms of type II SMA are:</p> <ul style="list-style-type: none"> i) Onset between 6 and 18 months; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Weakness in trunk righting/derotation; or v) Hypotonia; or vi) Absence of deep tendon reflexes; or vii) Failure to gain weight appropriate for age; or viii) Any active chronic neurogenic changes; or ix) A compound muscle action potential below normative values for an age-matched child. <p>Defined signs and symptoms of type IIIa SMA are:</p> <ul style="list-style-type: none"> i) Onset between 18 months and 3 years of age; and ii) Failure to meet or regression in ability to perform age-appropriate motor milestones; or iii) Proximal weakness; or iv) Hypotonia; or v) Absence of deep tendon reflexes; or vi) Failure to gain weight appropriate for age; or vii) Any active chronic neurogenic changes; or viii) A compound muscle action potential below normative values for an age-matched child. <p>Invasive permanent assisted ventilation means ventilation via tracheostomy tube for greater than or equal to 16 hours per day.</p>

	<p>Recognised hospitals in the management of SMA are Lady Cilento Children’s Hospital (Brisbane), Royal Children’s Hospital Melbourne, Monash Children’s Hospital (Melbourne), John Hunter Hospital (Newcastle), Sydney Children’s Hospital Randwick, Children’s Hospital at Westmead, Adelaide Women and Children’s Hospital and Perth Children’s Hospital.</p> <p>Applications for authorisation of grandfathering treatment must be in writing and must include:</p> <p>(a) a completed authority prescription form; and (b) a completed Spinal muscular atrophy PBS Authority Application for Grandfather patients - Supporting Information Form which includes the following:</p> <p>i) specification of SMA type (I, II or IIIa); and (ii) sign(s) and symptom(s) that the patient has experienced; and (iii) patient’s age at the onset of sign(s) and symptom(s); and (iv) if relevant, a copy of a TGA-approval letter to clinician with the authorised prescriber number of AP17/83146.</p> <p>A patient may qualify for PBS-subsidised treatment under this restriction once only.</p> <p>For continuing PBS-subsidised treatment, a Grandfathered patient must qualify under the Continuing treatment criteria.</p>
<p>Administrative Advice</p>	<p>No increase in the maximum quantity or number of units may be authorised.</p> <p>A maximum number of repeats of up to 2 may be authorised for patients requiring loading doses for days 14, 28 and 63.</p> <p>A maximum number of repeats of up to 1 may be authorised for patients requiring loading doses for days 28 and 63.</p> <p>Special Pricing Arrangements apply.</p> <p>Any queries concerning the arrangements to prescribe may be directed to the Department of Human Services on 1800 700 270 (hours of operation 8 a.m. to 5 p.m. EST Monday to Friday).</p> <p>Prescribing information (including Authority Application forms and other relevant documentation as applicable) is available on the Department of Human Services website at www.humanservices.gov.au</p> <p>Applications for authority to prescribe should be forwarded to: Department of Human Services Complex Drugs</p>

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6 Context for Decision

The PBAC helps decide whether and, if so, how medicines should be subsidised in Australia. It considers submissions in this context. A PBAC decision not to recommend listing or not to recommend changing a listing does not represent a final PBAC view about the merits of the medicine. A company can resubmit to the PBAC or seek independent review of the PBAC decision.