NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Vutrisiran for treating hereditary transthyretin related amyloidosis (TA868)

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Summary

NICE has recommended vutrisiran, within its marketing authorisation, as an option for treating hereditary transthyretin-related amyloidosis in adults with stage 1 or stage 2 polyneuropathy. It is only recommended if the company provides vutrisiran according to the commercial arrangement vutrisiran (see section 2 of the guidance).

We estimate that:

- 230 people with hereditary transthyretin-related amyloidosis (hATTR) are currently eligible to start treatment with vutrisiran after adjusting for population growth.
- 210 people will receive treatment with vutrisiran from year 2027/28 onwards once market share has reached 91%. This is shown in table 1.
- Around 3,500 fewer visits for IV infusion appointments would be needed from year 2027/28. This is shown in table 2.

Table 1 Estimated number of people in England receiving vutrisiran

	2023/24	2024/25	2025/26	2026/27	2027/28
Market share for vutrisiran (%)	87	88	89	90	91
Population receiving vutrisiran each year after adjusting for population growth	200	200	200	210	210

Table 2 Estimated reduction in the number of visits needed with IV infusion services in England

	2023/24	2024/25	2025/26	2026/27	2027/28
IV infusion visits	(3,400)	(3,400)	(3,400)	(3,500)	(3,500)

Note: IV infusion visits include both hospital and home visits. Hospital visits are needed at the start of treatment only and therefore the number of visits at hospital is not significant. IV infusion visits in the home include homecare delivery time, nursing time and ancillaries.

This report is supported by a resource impact template because the list price of vutrisiran has a discount that is commercial in confidence. The discounted

price of vutrisiran can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are NHS hospital trusts.

1 Vutrisiran

1.1 NICE has recommended vutrisiran within its marketing authorisation, as an option for treating hereditary transthyretin-related amyloidosis in adults with stage 1 or stage 2 polyneuropathy. It is only recommended if the company provides vutrisiran according to the commercial arrangement (see section 2 of the guidance).

1.2 If people with the condition and their clinicians consider vutrisiran to be one of a range of suitable treatments, discuss the advantages and disadvantages of the available treatments. After that discussion, if more than one treatment is suitable, choose the least expensive. Take account of administration costs, dosage, price per dose and commercial arrangements.

1.3 Hereditary transthyretin-related amyloidosis is usually treated with patisiran. Patisiran is administered via intravenous infusion once every 3 weeks. The first three infusions take place in hospital, thereafter, and if possible, the summary of product characteristics states infusion can take place at the person's home. This is attended by a healthcare professional. A premedication regimen is required every treatment session to minimise the risk of infusion related reactions.

1.4 Vutrisiran is administered by subcutaneous injection (pre-filled syringe) 4 times a year. This significantly decreases the frequency of treatment compared to patisiran (17-18 times a year). The total time required for treatment with vutrisiran is less than 5 minutes. The time required for a treatment session with patisiran is approximately 3.5 hours. The first injection of vutrisiran takes place in hospital, subsequent doses are expected to be administered by a nurse practitioner in a homecare setting. This releases capacity for IV infusion services.

1.5 Evidence from a clinical trial and an indirect comparison shows that vutrisiran works as well as patisiran. Taking the number of vials used per person in the pharmacy data and administration costs into account, a cost comparison suggests vutrisiran is cost saving compared with patisiran. There will also be benefits of vutrisiran for people with the condition such as avoiding infusion related complications, adverse effects of premedication, and decreased exposure to healthcare settings.

2 Resource impact of the guidance

2.1 We estimate that:

- 230 people with hereditary transthyretin-related amyloidosis (hATTR) are currently eligible to start treatment with vutrisiran after adjusting for population growth.
- 210 people will receive treatment with vutrisiran from year 2027/28 onwards once market share has reached 91%. This is shown in table 3.
- Around 3,500 fewer visits for IV infusion appointments would be needed from year 2027/28. This is shown in table 4.

2.2 The current treatment and future uptake figure assumptions are based on clinical expert opinion and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to receive vutrisiran by financial year.

Table 3 Estimated number of people in England receiving vutrisiran

	2023/24	2024/25	2025/26	2026/27	2027/28
Market share for vutrisiran (%)	87	88	89	90	91
Population receiving vutrisiran each year after adjusting for population growth	200	200	200	210	210

Table 4 Estimated reduction in the number of visits needed with IV infusion services in England

	2023/24	2024/25	2025/26	2026/27	2027/28
IV infusion visits	(3.400)	(3,400)	(3,400)	(3,500)	(3,500)

Note: IV infusion visits include both hospital and home visits. Hospital visits are needed at the start of treatment only and therefore the number of visits at hospital is not significant. IV infusion visits in the home include homecare delivery time, nursing time and ancillaries.

2.3 This report is supported by a local resource impact template. The company has a commercial arrangement (simple discount patient access scheme). This makes vutrisiran available to the NHS with a discount. The size of the discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

Savings and benefits

2.4 Vutrisiran offers similar efficacy in the same eligible population but with reduced frequency and easier route of administration This is expected to lead to NHS resource savings, with significant savings in homecare capacity as shown in table 4 above.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are NHS hospital trusts.

3.2 Because vutrisiran has been recommended through the cost-comparison process, NHS England and commissioning groups have agreed to provide funding to implement this guidance 30 days after publication, therefore implementation is assumed to start in March 2023.

3.3 Vutrisiran falls within the programme budgeting category 4X 'Endocrine, Nutritional and Metabolic Problems – other'.

4 How we estimated the resource impact

The population

4.1 Estimates from the National Amyloidosis Centre (NAC) anticipate 230 people will be diagnosed with hATTR amyloidosis with stage 1 or stage 2 polyneuropathy by the start of 2027/28 (prevalent population).

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population		54,786,327
Adult population forecast in 2027/28		46,263,200
Prevalence of hATTR amyloidosis forecast in 2027/28[1]	0.0005	230
Total number of people eligible for treatment with vutrisiran		230
Total number of people estimated to receive vutrisiran each year from year 2027/28 (prevalent population)	91	210
Total		**210**
[1] Company submission based on clinical expert estimates at NAC		

Assumptions

4.2 The resource impact template assumes that:

- 87% of people currently receive patisiran; 6% receive inotersen and 7% receive best supportive care.
- 91% of people will receive treatment with vutrisiran from 2027/28 with 0% receiving patisiran, 4% of people receiving inotersen and 5% receiving best supportive care.
- The first dose of vutrisiran is taken at hospital with the subsequent 3 doses taken at home.

- The first 3 IV infusions of patisiran are taken in hospital with subsequent infusions (14 in year 1 and 17 in future years) taken at home via NHS Commissioned Homecare.

- Treatment is lifelong.

Administration costs (vutrisiran) (National Tariff 2022/23)

- SB12Z Deliver simple parenteral chemotherapy at first attendance.

Other factors

4.3 There are likely to be environmental benefits associated with reduced travelling to deliver IV infusions needed for treatment with patisiran, which are every 3 weeks.

4.4 People receiving patisiran require pre-medication before every treatment which can cause side effects. Fatigue or drowsiness from premedication can last up to 2 days. No pre-medication is needed prior to treatment with vutrisiran.

About this resource impact report

This resource impact report accompanies the NICE guidance on Vutrisiran for treating hereditary transthyretin-related amyloidosis TA868 and should be read with it.