NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Icosapent ethyl with statin therapy for reducing the risk of cardiovascular events in people with raised triglycerides (TA805)

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Summary

NICE has recommended icosapent ethyl as an option for reducing the risk of cardiovascular events in adults. It is recommended if they have a high risk of cardiovascular events and raised fasting triglycerides (1.7 mmol/litre or above) and are taking statins.

We estimate that:

- 404,000 people with an established cardiovascular disease are eligible for treatment with icosapent ethyl from year 5 after adjusting for population growth.
- 20,200 people will have started icosapent ethyl by year 5 once uptake has reached 5% after adjusting for population growth.

The estimated annual cost of implementing this guidance for the population of England based on the uptake in the resource impact assumptions is shown in table 1. Based on the assumptions used for England, this is equivalent to a cost of around £1,650,000 and £990,000 in 2026/27 for Wales and Northern Ireland respectively.

Table 1 Estimated annual cost of implementing the guidance

	2022/23	2023/24	2024/25	2025/26	2026/27
Eligible population (adjusted for population growth each year)	399,000	400,000	402,000	403,000	404,000
Uptake rate for icosapent ethyl (%)	1%	2%	3%	4%	5%
Population starting icosapent ethyl in year 1 of treatment	4,000	4,000	4,000	4,100	4,100
Population discontinuing in year 1 of treatment	-320	-320	-320	-330	-330
Population continuing treatment with icosapent ethyl from previous year	0	3,680	7,060	10,210	13,260
Population discontinuing in year 2 of treatment	0	-300	-530	-720	-910
Population continuing treatment into following year	3,680	7,060	10,210	13,260	16,120
Drug cost resource impact each year (£'000)	6,700	12,900	18,800	24,200	29,400
Total resource impact (£'000)	**6,700**	**12,900**	**18,800**	**24,200**	**29,400**

This report is supported by a resource impact template which may be used to calculate the resource impact of implementing the guidance by amending the variables.

This technology is commissioned by integrated care systems. Providers are primary care and NHS hospital trusts.

1 Icosapent ethyl

1.1 NICE has recommended icosapent ethyl as an option for reducing the risk of cardiovascular events in adults. It is recommended if they have a high risk of cardiovascular events and raised fasting triglycerides (1.7 mmol/litre or above) and are taking statins, but only if they have:

- established cardiovascular disease (secondary prevention), defined as a history of any of the following:
  - acute coronary syndrome (such as myocardial infarction or unstable angina needing hospitalisation)
  - coronary or other arterial revascularisation procedures
  - coronary heart disease
  - ischaemic stroke
  - peripheral arterial disease, and
- low-density lipoprotein cholesterol (LDL-C) levels above 1.04 mmol/litre and below or equal to 2.60 mmol/litre.

1.2 This recommendation is not intended to affect treatment with icosapent ethyl that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

1.3 Icosapent ethyl is indicated to reduce the risk of cardiovascular events in adult statin-treated patients for who there are currently no treatment options available.

2 Resource impact of the guidance

2.1 We estimate that around:

- 404,000 people with an established cardiovascular disease are eligible for treatment with icosapent ethyl from year 5 after adjusting for population growth.
- 20,200 people will have started icosapent ethyl by year 5 once uptake has reached 5% after adjusting for population growth.

2.2 The current treatment and future uptake figure assumptions are based on the company submission and are shown in the resource impact template.

2.3 The estimated annual cost of implementing this guidance for the population of England based on the uptake in the resource impact assumptions is shown in table 2. The cost from year 5 is equivalent to £51,000 per 100,000 population (see table 3).

Table 2 Resource impact of implementing the guidance using NICE assumptions for the population of England

	2022/23	2023/24	2024/25	2025/26	2026/27

Eligible population (adjusted for population growth each year)	399,000	400,000	402,000	403,000	404,000
Uptake rate for icosapent ethyl (%)	1%	2%	3%	4%	5%
Population starting icosapent ethyl in year 1 of treatment	4,000	4,000	4,000	4,100	4,100
Population discontinuing in year 1 of treatment	-320	-320	-320	-330	-330
Population continuing treatment with icosapent ethyl from previous year	0	3,680	7,060	10,210	13,260
Population discontinuing in year 2 of treatment	0	-300	-530	-720	-910
Population continuing treatment into following year	3,680	7,060	10,210	13,260	16,120
Drug cost resource impact each year (£'000)	6,700	12,900	18,800	24,200	29,400
Total resource impact (£'000)	**6,700**	**12,900**	**18,800**	**24,200**	**29,400**

Table 3 Resource impact of implementing the guidance using NICE assumptions per 100,000 population

	2022/23	**2023/24**	**2024/25**	**2025/26**	**2026/27**

Uptake rate for icosapent ethyl (%)	1%	2%	3%	4%	5%
Population starting icosapent ethyl in year 1 of treatment	7	7	7	7	7
Population discontinuing in year 1 of treatment	1	1	1	1	1
Population continuing treatment with icosapent ethyl from previous year	0	6	11	17	21
Population discontinuing in year 2 of treatment		1	1	1	2
Population continuing treatment into following year	6	11	16	22	25
Drug cost resource impact each year (£'000)	12	23	32	42	51
Total resource impact (£'000)	**12**	**23**	**32**	**42**	**51**

2.4 This report is supported by a resource impact template which may be used to calculate the resource impact of implementing the guidance by amending the variables.

Savings and benefits

2.5 Icosapent ethyl is indicated to reduce the residual risk of cardiovascular events in people taking statins who have raised triglycerides.

3 Implications for commissioners

3.1 This technology is commissioned by integrated care systems. Providers are primary care and NHS hospital trusts.

3.2 Icosapent ethyl falls within the programme budgeting category PBC0110X, problems of circulation.

4 How we estimated the resource impact

The population

4.1 There are around 3.2 million people with coronary heart disease, peripheral arterial disease and stroke and transient ischaemic attacks in England after factoring in population growth. (Quality and Outcomes Framework, 2020-21).

4.2 Table 4 shows the total number of people with coronary heart disease, peripheral arterial disease and stroke and transient ischaemic attacks who are eligible for treatment with icosapent ethyl.

Table 4 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population (midpoint 2020)		56,550,138
Total population adjusted for population growth (2026/27)		58,061,002
Prevalence of coronary heart disease[1]	3.05%	1,770,861
Prevalence of peripheral arterial disease[1]	0.59%	342,560
Prevalence of stroke and transient ischaemic attacks[1]	1.80%	1,045,098
Subtotal		3,158,519
People suitable for statin treatment	80%	2,526,815
People with LDL-C levels less than or equal to 2.60 mmol/litre[2]	80%	2,021,452
People with raised triglycerides (150 mg/dL [1.7 mmol/litre] or more) [3]	20%	404,290
Total number of people eligible for treatment with icosapent ethyl		404,290
Total number of people estimated to have started icosapent ethyl by year 5 adjusted for population growth (2026/27)	5%	20,200

[1] Source: Quality and Outcomes Framework 2020-21

[2] Source: 79% in ASCVD group received a statin, Steen DL et al 2014. Rounded up to 80% recognising increase in prescribing since 2014.

[3] Source: Company submission based on Euroapire V (De Backer et al 2019)

Assumptions

4.3 The resource impact template assumes that:

- the adult population in England will increase in the next 5 years (please see resource impact template for more details).
- Annual cumulative discontinuation rates for icosapent ethyl increase from 8% in year 1 to 35% in year 5 as shown in the resource impact template.
- Discontinuations are included within icosapent ethyl uptake rates.
- Discontinuations assumed average 50% cost of icosapent ethyl + statins & 50% of cost of statins alone.
- Cumulative uptake rates reflect the number of people who will have commenced treatment.
- The list price for icosapent ethyl is £144.21 for a pack of 120 capsules.
- The dosage for icosapent ethyl is 2 capsules twice a day.
- Treatment duration is ongoing until discontinuation.
- The cost for statins is estimated by company submission and includes ezetimibe, atorvastatin calcium (lipitor and generics), fluvastin sodium (lescol and generics) and pravastatin sodium (pravachol and generics).
- There is no resource impact from the cost of statins as all patients will continue to receive statins in addition to icosapent ethyl.
- There are no discontinuations for statins.
- Other costs, include health state costs, monitoring & management and adverse events are outlined in the unit cost sheet of the resource impact template.
- No VAT has been included to the cost of drugs because it is assumed that the majority of prescribing takes place in primary care.

Table 4 Assumptions made on current and future practice.

People eligible for icosapent ethyl		
Current Practice	**Future practice (year 5)**	**Rationale**
0% of people receive icosapent ethyl with statins	5% of people receive icosapent ethyl with statins	Estimate based on company submission.
100% of people receive statins alone	95% of people receive statins alone	Estimate based on company submission.
Total 100%	**Total 100%**	

About this resource impact report

This resource impact report accompanies the NICE guidance on www.nice.org.uk/guidance/TA805 and should be read with it.

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