NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Mavacamten for treating symptomatic obstructive hypertrophic cardiomyopathy (TA913)

Published: September 2023

Summary

NICE has recommended mavacamten as an option for treating symptomatic (New York Heart Association class 2 to 3) obstructive hypertrophic cardiomyopathy in adults.

We estimate that around:

- 6,300 people with New York Heart Association class 2 to 3, obstructive hypertrophic cardiomyopathy are eligible for treatment with mavacamten and beta blockers or calcium channel blockers from year 5, after adjusting for population growth
- 650 people will start treatment with mavacamten and beta blockers or calcium channel blockers in year 5 once cumulative uptake has reached 70%, after adjusting for population growth
- by year 5, 1,200 people will be continuing treatment with mavacamten and beta blockers or calcium channel blockers from previous years.

Table 1 Estimated number of people in England receiving mavacamten

	2023/24	2024/25	2025/26	2026/27	2027/28
Eligible population (adjusted for population growth each year)	6,114	6,151	6,188	6,227	6,264
Cumulative uptake rate for mavacamten and standard care (%)	10%	30%	50%	60%	70%
People starting treatment with mavacamten and standard care each year	610	1,230	1,250	640	650
People continuing treatment with mavacamten and standard care from previous years	0	205	615	1,015	1,200

People receiving mavacamten will require additional monitoring during their first and subsequent years of treatment, this will include outpatient appointments and an echocardiogram at each outpatient appointment. This will have a capacity impact on outpatient appointments and for

echocardiographic services during people's treatment. The capacity impact of this is shown in table 2.

Table 2 Capacity impact for people receiving mavacamten and beta blockers or calcium channel blockers each year

	2023/24	2024/25	2025/26	2026/27	2027/28
Cumulative uptake rate for mavacamten and standard care (%)	10%	30%	50%	60%	70%
Number of additional outpatient attendances	3,669	8,294	10,158	8,264	9,115
Number of additional echocardiograms	3,669	8,294	10,158	8,264	9,115

This report is supported by a local resource impact template because the list price of mavacamten has a discount that is commercial in confidence. The discounted price of mavacamten can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are specialist cardiac centres.

1 Mavacamten

1.1 NICE has recommended mavacamten as an option for treating symptomatic (New York Heart Association class 2 to 3) obstructive hypertrophic cardiomyopathy in adults. It is recommended only if it is an add-on to individually optimised standard care including beta-blockers, non-dihydropyridine calcium channel blockers or disopyramide, unless these are contraindicated. Mavacamten is only recommended if the company provides it according to the commercial arrangement.

1.2 Standard care treatment is either beta blockers or calcium channel blockers and if symptoms persist then disopyramide may be added. Some people with uncontrolled symptoms may choose to have surgery.

1.3 Clinical trial evidence suggests that mavacamten plus standard care is more effective than standard care alone, and that it may avoid or postpone the need for invasive surgery.

2 Resource impact of the guidance

We estimate that around:

- 6,300 people in England with New York Heart Association class 2 to 3, obstructive hypertrophic cardiomyopathy are eligible for treatment with mavacamten and beta blockers or calcium channel blockers from year 5, after adjusting for population growth
- 650 people will start treatment with mavacamten and beta blockers or calcium channel blockers in year 5 once cumulative uptake has reached 70%, after adjusting for population growth
- by year 5, 1,200 people will be continuing treatment with mavacamten and beta blockers or calcium channel blockers from previous years.

2.1 The current treatment and future uptake figure assumptions are based on expert clinical opinion and are shown in the resource impact template. Table 3 shows the number of people in England who are estimated to receive mavacamten and beta blockers or calcium channel blockers by financial year.

Table 3 Estimated number of people receiving mavacamten and beta blockers or calcium channel blockers using NICE assumptions

	2023/24	2024/25	2025/26	2026/27	2027/28
Eligible population (adjusted for population growth each year)	6,114	6,151	6,188	6,227	6,264
Cumulative uptake rate for mavacamten and beta blockers or calcium channel blockers (%)	10%	30%	50%	60%	70%
Population starting mavacamten and beta blockers or calcium channel blockers each year	610	1,230	1,250	640	650
People continuing treatment with mavacamten and beta blockers or calcium channel blockers from previous years	0	205	615	1,015	1,200

2.2 The capacity impact of this change in practice is summarised in table 4.

Table 4 Capacity impact for people receiving mavacamten and beta blockers or calcium channel blockers each year

	2023/24	2024/25	2025/26	2026/27	2027/28
Cumulative uptake rate for mavacamten and standard care (%)	10%	30%	50%	60%	70%
Number of additional outpatient attendances	3,669	8,294	10,158	8,264	9,115
Number of additional echocardiograms	3,669	8,294	10,158	8,264	9,115

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 mavacamten available to the NHS with a discount. The size of the discount is commercial in confidence. The discounted price of mavacamten can be put into the template and other variables may be amended. It is the company's responsibility to let relevant NHS organisations know details of the discount.

Savings and benefits

2.4 The clinical trial evidence suggests that mavacamten plus standard care is more effective than standard care alone, and that it may avoid or postpone the need for invasive surgery called septal reduction therapies.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are specialist cardiac centres.

3.2 Mavacamten falls within the programme budgeting category PBC10X, problems of circulation.

4 How we estimated the resource impact

The population

4.1 Table 5 shows the number of people with obstructive hypertrophic cardiomyopathy and who will be eligible for mavacamten and beta blockers or calcium channel blockers.

Table 5 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Adult population by 2027/28 after adjusting for population growth		46,263,200
Prevalence of people with maximum left ventricular wall thickness (MLVWT) ≥ 15 mm[1]	0.11%	50,900
Proportion of people diagnosed with hypertrophic cardiomyopathy (HCM)[2]	24.00%	12,200
Proportion of people who have obstructive HCM[3]	65.00%	7,900
Proportion of people who are symptomatic (New York Health Association class 2 to 3)[4]	78.90%	6,300
Total number of people estimated to start treatment with mavacamten and beta blockers or calcium channel blockers by year 5[5]		650
Total number of people estimated to be continuing treatment with mavacamten and beta blockers or calcium channel blockers from year 5		1,200

[1] Source: Prevalence of Hypertrophic Cardiomyopathy in the UK Biobank Population

[2] Source: Internal communications from the company

[3] Source: Company BI submission, Elliot et al 2014

[4] Source: Higher New York Heart Association Classes and Increased Mortality and Hospitalization in Heart Failure Patients with Preserved Left Ventricular Function

[5] Source: Expert clinical opinion

Assumptions

4.2 The resource impact template assumes that:

- 100% of people are currently treated with beta blockers or calcium channel blockers
- 81.8% of people are treated with beta blockers and 18.2% are treated with calcium channel blockers
- cumulative uptake for mavacamten and beta blockers or calcium channel blockers will remain steady at 70% from year 5
- 1 cycle of mavacamten is 5mg daily for 28 days

- people who do not experience New York Health Association class improvement at 30 weeks discontinue treatment with mavacamten and beta blockers or calcium channel blockers. According to the EXPLORER-HCM trial, this is expected to be 65.1% of people
- people will discontinue treatment with mavacamten and beta blockers or calcium channel blockers during their first year of treatment due to adverse events. According to the company's economic model this is expected to be 1.2% of people
- people will discontinue treatment with mavacamten and beta blockers or calcium channel blockers during subsequent years of treatment. According to the company's economic model this is expected to be 2.8% of people per year
- people who discontinue with mavacamten and beta blockers or calcium channel blockers will continue treatment with beta blockers or calcium channel blockers monotherapy
- treatment duration for people who do not discontinue with mavacamten and beta blockers or calcium channel blockers is expected to be greater than 5 years
- prescribing of mavacamten occurs within current outpatient appointments and therefore no specific administration is included
- monitoring costs for mavacamten are based on TFC 320 cardiology, WF01A Follow Up Attendance - Single Professional and RD51A, Simple Echocardiogram, 19 years and over
- people receiving mavacamten will attend 6 outpatient appointments and receive 6 echocardiograms during their first year of treatment. In subsequent years, outpatient appointments and echocardiograms will continue at a rate of 4.35 per year
- beta blockers are dispensed as propranolol and is administered as 10mg 3 times daily for 13 cycles a year

- calcium channel blockers are dispensed as either diltiazem hydrochloride which is administered as 60mg 3 times daily for 13 cycles a year, or verapamil hydrochloride which is administered as 80mg 3 times daily for 13 cycles a year
- the list price of propranolol is £0.34 per pack, the list price for diltiazem hydrochloride is £5.29 per pack and the list price for verapamil hydrochloride is £1.88
- disopyramide is not a comparator treatment, but it can be used as a second-line therapy. Approximately 0.44% of people who stop first-line treatment with mavacamten and beta blockers or calcium channel blockers will have disopyramide, and 1.44% of people who stop first-line treatment with beta blockers or calcium channel blockers will receive disopyramide each year
- VAT has been applied in the resource impact template
- mavacamten may have the potential to avoid or delay the need for septal reduction therapies, however, as this is expected to be minimal it has not been modelled in the template.

About this resource impact report

This resource impact report accompanies the NICE guidance on mavacamten for treating symptomatic obstructive hypertrophic cardiomyopathy and should be read with it.