NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Avacopan for treating severe active granulomatosis with polyangiitis or microscopic polyangiitis (TA825)

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Summary

NICE has recommended avacopan with a cyclophosphamide or rituximab regimen for treating severe active granulomatosis with polyangiitis (GPA) or microscopic polyangiitis (MPA) in adults.

We estimate that:

- 490 newly diagnosed people with GPA or MPA are eligible for treatment with avacopan plus cyclophosphamide (CYC) or rituximab (RTX) each year after adjusting for population growth
- 740 people with GPA or MPA from the prevalent population will relapse and become eligible for avacopan plus CYC or RTX each year, along with newly diagnosed cases, this is 1,230 people in total
- 885 people will receive avacopan from year 2026/27 onwards once uptake has reached 72% as shown in table 1
- Potential resources released from reduction in incidence of hospital admissions and time in hospital for reduced relapses are shown in table 2
- Resources may be released from a reduction in end stage renal disease (ESRD) (see 4.2 Assumptions and 4.3 Other factors).

Table 1 Estimated number of people in England receiving avacopan

	2022/23	2023/24	2024/25	2025/26	2026/27
Eligible population[1]	1,200	1,210	1,220	1,230	1,230
Uptake rate for avacopan (%)	5	37	57	70	72
Population receiving avacopan each year	60	450	690	860	885

1.The population growth assumes the number of people who move out of the eligible population each year is similar to the annual incidence, this means prevalence is not assumed to change over time.

Table 2 Potential resources released from reduction in hospital admissions

	2022/23	2023/24	2024/25	2025/26	2026/27
Resources released (bed days)	400	3,000	4,800	5,900	6,000

This report is supported by a local resource impact template because the list price of avacopan the additional treatments have discounts that are

commercial in confidence. The discounted prices of the avacopan regimens can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are specialist centres with expertise in the management of ANCA-associated vasculitis.

1 Avacopan

1.1 NICE has recommended avacopan with a cyclophosphamide (CYC) or rituximab (RTX) regimen, within its marketing authorisation, for treating severe active granulomatosis with polyangiitis or microscopic polyangiitis in adults. It is recommended only if the company provides it according to the commercial arrangement.

1.2 Standard care for granulomatosis with polyangiitis or microscopic polyangiitis occurs in 2 phases and usually starts with corticosteroids plus CYC or RTX to control inflammation and induce disease remission. Maintenance treatment, usually azathioprine or RTX with a lower dose of corticosteroids (usually prednisone), then aims to prevent the conditions from relapsing and causing further organ damage.

1.3 Both patient and clinical experts commented on the side effects and toxicity of corticosteroids. One clinical expert commented that infection and cardiovascular disease, which are the most common causes of death in this population, are both associated with corticosteroid use.

1.4 The committee recognised that avacopan, compared with a prednisone-based regimen, sustained disease remission for a larger proportion of people, and reduced corticosteroid-induced toxicity. The ADVOCATE study showed people who receive avacopan received about one-third less corticosteroids than people receiving standard care with prednisolone. Avacopan was associated with a reduced incidence in hospital admissions caused by relapse, and lower average length of hospital stay (13.8 days in the avacopan group vs 19.6 days in the prednisone group) caused by high dose corticosteroid use.

2 Resource impact of the guidance

2.1 We estimate that:

- 490 newly diagnosed people with GPA or MPA are eligible for treatment with avacopan plus cyclophosphamide (CYC) or rituximab (RTX) each year
- 740 people with GPA or MPA from the prevalent population will relapse and become eligible for avacopan plus CYC or RTX each year, along with newly diagnosed cases, this is 1,230 people in total
- 885 people will receive avacopan from year 2026/27 onwards once uptake has reached 72% as shown in table 3
- Potential resources released from reduction in incidence of hospital admissions and time in hospital for reduced relapses are shown in table 4
- Resources may be released from a reduction in ESRD (see 4.2 Assumptions and 4.3 Other factors).

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 3 shows the number of people in England who are estimated to receive avacopan by financial year.

Table 3 Estimated number of people receiving avacopan using NICE assumptions

	2022/23	2023/24	2024/25	2025/26	2026/27
Eligible population[1]	1,200	1,210	1,220	1,230	1,230
Uptake rate for avacopan (%)	5	37	57	70	72
Population receiving avacopan each year	60	450	690	860	885

1.The population growth assumes the number of people who move out of the eligible population each year is similar to the annual incidence, this means prevalence is not assumed to change over time.

Table 4 Potential resources released from reduction in hospital admissions

	2022/23	2023/24	2024/25	2025/26	2026/27
Resources released (bed days)	400	3,000	4,800	5,900	6,000

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 avacopan 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. The discounted price of avacopan can be put into the template and other variables may be amended.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are specialist centres with expertise in the management of ANCA-associated vasculitis.

3.2 Avacopan falls within the programme budgeting category 3 'Disorders of Blood'.

4 How we estimated the resource impact

The population

4.1 In the United Kingdom, the incidence and prevalence rate of GPA are 11 and between 135 and 146 per million population respectively [Pearce FA; Grainge M et al. (2017) The incidence, prevalence and mortality of GPA in UK clinical practice].This is 0.0011% and 0.0141% of adults in England respectively. The incidence and prevalence of MPA are 5.3 and 52.3 per million

population. This is 0.00053% and 0.0052% of adults in England respectively [Watts et al. (2015)].

Table 5 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Adult population		44,456,850
Adult population 2026/27 adjusted for population growth		46,263,200
Incidence of GPA[1]	0.0011	500
Incidence of MPA[2]	0.00053	250
Sub total		750
People who don't have mild or treatment refractory condition and are therefore eligible[3]	65	**490**
Prevalence of GPA[1]	0.0141	6,500
Prevalence of MPA[2]	0.0052	2,400
Sub total		8,900
People who don't have mild or treatment refractory condition and are therefore eligible[3]	70	6,200
Of whom: Number of people who relapse each year and require treatment[3]	11.9	**740**
Total eligible population each year after adjusting for population growth		**1,230**
Total number of people estimated to receive avacopan each year from year 2026/27[3]	71.7	**885**

[1] Pearce FA; Grainge M et al. (2017) The incidence, prevalence and mortality of GPA in UK clinical practice

[2] Watts et al. (2015) Classification, epidemiology and clinical subgrouping of antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis. Nephrol Dial Transplant. 2015;30(Suppl 1):14-22]

[3] Company submission.

Assumptions

4.2 The resource impact template assumes that:

- 35.2% of people currently receive CYC and 64.8% of people receive RTX induction treatment. 35% of people who receive

RTX induction treatment will receive RTX maintenance treatment. All other people will receive azathioprine as maintenance treatment. These assumptions are not expected to change with the addition of avacopan.

- 28.3% of people receive standard care in future practice (100% - 71.7% avacopan uptake see table 5)

  Based on the ADVOCATE study, assumptions for potential resources released are:

- Average annual incidence of hospital admissions for people receiving avacopan is 47%, average length of stay 13.8 days
- Average annual incidence of hospital admissions for people receiving standard care is 68%, average length of stay 19.6 days
- The percentage of people receiving avacopan who progress to ESRD by year 5 of treatment is 28.3%
- The percentage of people receiving standard care who progress to end stage renal disease by year 5 of treatment is 33.6%
- For simplicity, the rate of progression to ESRD is assumed to apply evenly over 5 years
- Hospital based dialysis needed due to the rare nature and severity of the condition. National cost collection 2019/20 shows the cost to provider services for renal dialysis at base is £168 per attendance [code LD01A] x 3 attendances per week [Dialysis NHS] = 156 attendances per person per year x £168 = £26,200.
- The cost per bed day for hospital admissions for serious adverse events is taken from the National cost collection 2019/20 which shows the cost to providers for a non-elective long stay spell is £5,511. This is divided by the average stay of 19.6 (ADVOCATE

study) = £281 per bed day [code DZ29G ‘Granulomatous, Allergic Alveolitis or Autoimmune Lung Disease, with Interventions’].

Other factors

4.3 The studies for avacopan indicate there may be additional benefits associated with improved preservation of renal function in some people. The annual costs associated with ESRD are estimated to be around £26,200 (see above calculation for dialysis costs). Potential resource benefits could be significant and can be assessed in the template; however, there is uncertainty in the effectiveness of avacopan and its impact on long-term outcomes.

4.4 There are other capacity benefits associated with ESRD which could not be modelled due to their variable nature. These include treatment for non-renal problems such as strokes, heart attacks and infections that occur more in people with ESRD. Other benefits (similar to RTX) include better overall disease control and fewer steroid related side-effects. While difficult to quantify in terms of bed days, these benefits will produce a wider range of cost savings for the NHS both in the short and long term.

About this resource impact report

This resource impact report accompanies the NICE guidance on Avacopan for treating severe active granulomatosis with polyangiitis or microscopic polyangiitis and should be read with it.