

Putting NICE guidance into practice

**Resource impact report:**

**Daratumumab in combination for treating newly diagnosed systemic amyloid light-chain amyloidosis (TA959)**

Published: March 2024

# Summary

NICE has recommended daratumumab plus bortezomib, cyclophosphamide and dexamethasone as an option for treating newly diagnosed systemic amyloid light-chain (AL) amyloidosis in adults. It is recommended only if:

* daratumumab is stopped after 24 cycles of treatment, or earlier if the condition progresses, and
* the company provides daratumumab according to the commercial arrangement.

We estimate, based on the incident population, that around:

* 433 adults with amyloid light-chain amyloidosis are eligible for treatment with daratumumab in combination by 2028/29, based on expected population growth.
* 411 adults will start treatment with daratumumab in combination each year by 2028/29 after adjusting for expected population growth. This is based on consultant haematologist opinion.

**Table 1 Estimated number of people in England starting treatment with daratumumab in combination each year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2024/25** | **2025/26** | **2026/27** | **2027/28** | **2028/29** |
| Uptake % | 95 | 95 | 95 | 95 | 95 |
| People starting treatment with daratumumab in combination after adjusting for population growth | 398 | 402 | 405 | 408 | 411 |
| **Total number of people** | **398** | **402** | **405** | **408** | **411** |
| It is anticipated that people continue treatment for 15 months on average and therefore there will also be people receiving treatment who started treatment in previous years. | | | | | |

This report is supported by a local resource impact template. This is because the company has a commercial arrangement. This makes daratumumab 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.

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

1. Daratumumab in combination
   1. Amyloidosis happens when amyloid, an abnormal protein, builds up in the organs affecting normal function. Systemic amyloid light-chain (AL) amyloidosis is the most severe form of amyloidosis. It is rare and incurable.
   2. Systemic AL amyloidosis is usually treated with medicines that are licensed for multiple myeloma. These include bortezomib plus cyclophosphamide and dexamethasone. Daratumumab in combination is the first treatment licensed for AL amyloidosis. If the condition responds to daratumumab in combination after 6 cycles, daratumumab alone is offered for up to 18 cycles.
   3. Clinical evidence suggests that daratumumab in combination increases the time until systemic AL amyloidosis gets worse compared with bortezomib plus cyclophosphamide and dexamethasone. People whose condition responds to daratumumab in combination may live longer.
   4. The clinical experts explained that people with AL amyloidosis need care in the NHS in multidisciplinary clinics and are primarily treated by haematologists. They may also have input from nephrology and cardiology specialties. The most severe forms of systemic AL amyloidosis present with heart failure and renal failure.
   5. The clinical experts explained that there are currently no licensed treatment options for systemic AL amyloidosis in the NHS. They and the Cancer Drugs Fund lead explained that clinicians instead offer treatments for multiple myeloma and that the treatment pathways are similar. For newly diagnosed AL amyloidosis, first-line treatment is usually bortezomib plus cyclophosphamide and dexamethasone.
2. Resource impact of the guidance
   1. The current treatment and future uptake figure assumptions are based on estimates provided by consultant haematologists and are shown in the resource impact template.
   2. This report is supported by a local resource impact template. This is because the company has a commercial arrangement which makes daratumumab 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

* 1. Daratumumab in combination would represent the first treatment licensed in the UK specifically for the management of patients with newly diagnosed AL amyloidosis.
  2. Clinical evidence suggests that daratumumab in combination increases the time until systemic AL amyloidosis gets worse compared with bortezomib plus cyclophosphamide and dexamethasone.

1. Implications for commissioners and providers
   1. Daratumumab in combination is commissioned by NHS England. Providers are NHS hospital trusts.
   2. Daratumumab in combination falls within the programme budgeting category 16X - Specialist immunology services for adults with deficient immune systems.
   3. The average treatment duration for daratumumab in combination and its comparator are uncertain. The resource impact template allows commissioners to assess the resource impact of any additional attendances required at provider services.
2. How we estimated the resource impact

## The population

* 1. [Myeloma UK - AL amyloidosis](https://www.myeloma.org.uk/understanding-myeloma/related-conditions/al-amyloidosis/) estimates there are between 500-600 people diagnosed with AL amyloidosis each year in UK (assumed all are adults). Using a midpoint of 550 and assuming 84% relates to the English population gives 462 adults.
  2. Consultant haematologists estimated 90% would be well enough or choose treatment giving 416 adults eligible for treatment. Applying population growth gives around 433 adults in England that are expected to be eligible for treatment for amyloid light-chain amyloidosis in 2028/29.
  3. Table 2 shows the number of people eligible for treatment with daratumumab in combination.

### Table 2 Number of people eligible for treatment in England

|  |  |  |
| --- | --- | --- |
| **Population** | **Proportion of previous row (%)** | **Number of people** |
| Adult population forecast at 2028/29 |  | 46,263,200 |
| Incidence of AL amyloidosis1 | 0.001% | 481 |
| Proportion well enough and eligible for treatment with daratumumab with cyclophosphamide, bortezomib and dexamethasone2 | 90% | 433 |
| 1 [Myeloma UK - AL amyloidosis](https://www.myeloma.org.uk/understanding-myeloma/related-conditions/al-amyloidosis/)  2 Consultant haematologists | | |

## Assumptions

* 1. The resource impact template assumes that:
* For newly diagnosed AL amyloidosis, first-line treatment is usually bortezomib plus cyclophosphamide and dexamethasone
* No additional infrastructure is expected to be required to deliver this treatment.
* It is assumed 50% of patients would receive subsequent therapy in each arm.
* The resource impact identifies the costs of subsequent treatment in the comparator arm but assumes any subsequent costs in the daratumumab in combination arm falls outside the 5-year model period.
* The recommended dose of daratumumab is a fixed dose (1800mg/15ml) subcutaneously. Daratumumab is given weekly, weeks 1 to 8, then every 2 weeks for weeks 9 to 24 and every 4 weeks until disease progression. Bortezomib, cyclophosphamide and dexamethasone are given weekly with doses on days 1, 8, 15 and 22 for six 28-day cycles. Cyclophosphamide is given at a dose of 300 mg/m² orally. Bortezomib is given at a dose of 1.3 mg/m² by subcutaneous injection and dexamethasone 40 mg is given orally.
* The mean treatment duration is assumed to be 15 months from the ANDROMEDA 12-month landmark analysis.
* Administration costs in clinic are based on the [2023-25 NHS Payment Scheme, 2023/24 prices workbook](https://www.england.nhs.uk/publication/2023-25-nhs-payment-scheme/).

# About this resource impact report

This resource impact report accompanies the NICE guidance on  [Daratumumab in combination for untreated systemic amyloid light-chain amyloidosis](https://www.nice.org.uk/guidance/ta959) and should be read with it. See [terms and conditions](http://www.nice.org.uk/terms-and-conditions) on the NICE website.

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