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NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Talquetamab for treating relapsed or refractory multiple myeloma after 3 treatments

Final scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of talquetamab within its marketing authorisation for treating relapsed or refractory multiple myeloma after 3 treatments.

Background

Multiple myeloma is a form of cancer that arises from plasma cells (a type of white blood cell) in the bone marrow. Myeloma cells produce large quantities of an abnormal antibody, known as paraprotein. Unlike normal antibodies, paraprotein has no useful function and lacks the capacity to fight infection. Myeloma cells supress the development of normal blood cells that are responsible for fighting infection (white blood cells), carrying oxygen around the body (red blood cells) and blood clotting (platelets). The term multiple myeloma refers to the presence of more than one site of affected bone at the time of diagnosis. People with multiple myeloma can experience bone pain, bone fractures, tiredness (due to anaemia), infections, hypercalcaemia (too much calcium in the blood) and kidney problems.

Approximately 5,300 people are diagnosed with multiple myeloma in England each year (2017 to 2019 data).[1] Five-year prevalence of multiple myeloma in the UK is 28 per 100,000.[2] It is most frequently diagnosed in older people, with 43% of new cases of multiple myeloma in England in people aged 75 years or older.[1] The 5-year survival rate for adults with multiple myeloma in England and Wales is estimated to be 52%.[3] Multiple myeloma is more common in men than in women.[4] The incidence rates are also reported to be lower in the Asian ethnic group, higher in the Black ethnic group, and similar in people of mixed or multiple ethnicity, compared with the White ethnic group, in England (2013-2017 data).[4]

The main aims of treatment are to prolong survival and maintain a good quality of life by controlling the disease and relieving symptoms. If the disease progresses after initial treatment, the choice of subsequent treatment is influenced by previous treatment and response to it, duration of remission, comorbidities and patient preference.

For people who have had at least 2 prior treatments:

- NICE technology appraisal guidance 171 recommends lenalidomide plus dexamethasone as a treatment option for people who have had at least 2 prior treatments.
- NICE technology appraisal guidance 380 recommends panobinostat plus bortezomib and dexamethasone as a treatment option for adults who have had at least 2 prior treatments including bortezomib and an immunomodulatory agent.

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- NICE technology appraisal guidance 870 recommends ixazomib citrate plus lenalidomide and dexamethasone as a treatment option for adults who have had 2 or 3 previous treatments.

For people who have had at least 3 prior treatments:

- NICE technology appraisal guidance 427 recommends pomalidomide plus low-dose dexamethasone as a treatment option for adults who have had at least 3 previous treatments including both lenalidomide and bortezomib.

- NICE technology appraisal guidance 658 recommends isatuximab plus pomalidomide and dexamethasone for use within the Cancer Drugs Fund as a treatment option for adults who have had 3 previous treatments including lenalidomide and a proteosome inhibitor.

- NICE technology appraisal guidance 783 recommends daratumumab monotherapy for use as a treatment option for adults who have had 3 previous treatments including a proteasome inhibitor and an immunomodulator.

- NICE technology appraisal guidance 1015 recommends teclistamab monotherapy as a treatment option for adults who have had at least 3 previous treatments including an immunomodulator, a proteasome inhibitor and an anti-CD38 antibody.

- NICE technology appraisal guidance 1023 recommends elranatamab monotherapy for use within the Cancer Drugs fund as a treatment option for adults who have had at least 3 previous treatments including an immunomodulator, a proteasome inhibitor and an anti-CD38 antibody.

For people who have had at least 4 prior treatments:

- NICE technology appraisal guidance 970 recommends selinexor plus dexamethasone as a treatment option for adults who have had at least 4 previous treatments including 2 proteasome inhibitors, 2 immunomodulatory agents and an anti-CD38 monoclonal antibody.

The technology

Talquetamab (Talvey, Johnson & Johnson) is indicated as monotherapy for the treatment of adult patients with relapsed and refractory multiple myeloma, who have received at least 3 prior therapies, including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 antibody and have demonstrated disease progression on the last therapy.

Intervention(s)	Talquetamab

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Population(s)	Adults with relapsed or refractory multiple myeloma, who have received at least 3 prior therapies, including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 antibody and have demonstrated disease progression on the last therapy.
Subgroups	If the evidence allows the following subgroups will be considered: • Prior T-cell redirection therapy • Prior lines of therapy
Comparators	• Panobinostat plus bortezomib and dexamethasone • Pomalidomide plus low-dose dexamethasone • Selinexor plus dexamethasone • Teclistamab • Isatuximab plus pomalidomide and dexamethasone (subject to NICE evaluation) • Belantamab mafodotin with pomalidomide and dexamethasone (subject to NICE evaluation) • Belantamab mafodotin with bortezomib and dexamethasone (subject to NICE evaluation)
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rates • time to next treatment • adverse effects of treatment • health-related quality of life

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Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost comparison may be carried out. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account. The availability and cost of biosimilar and generic products should be taken into account.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations	**Related technology appraisals:** Elranatamab for treating relapsed and refractory multiple myeloma after 3 or more treatments (2024) NICE technology appraisal guidance 1023 Teclistamab for treating relapsed or refractory multiple myeloma after 3 treatments (2024) NICE technology appraisal guidance 1015 Selinexor with dexamethasone for treating relapsed or refractory multiple myeloma after 4 or more treatments (2024) NICE technology appraisal guidance 970 Ixazomib with lenalidomide and dexamethasone for treating relapsed or refractory multiple myeloma (2023) NICE technology appraisal guidance 870 Daratumumab monotherapy for treating relapsed and refractory multiple myeloma (2022) NICE technology appraisal guidance 783 Isatuximab with pomalidomide and dexamethasone for treating relapsed and refractory multiple myeloma (2020) NICE technology appraisal guidance 658

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	Pomalidomide for multiple myeloma previously treated with lenalidomide and bortezomib (2017) NICE technology appraisal guidance 427 Panobinostat for treating multiple myeloma after at least 2 previous treatments (2016) NICE technology appraisal guidance 380 Lenalidomide for the treatment of multiple myeloma in people who have received at least 2 prior therapies (2009) NICE technology appraisal guidance 171. **Related technology appraisals in development:** Belantamab mafodotin with pomalidomide and dexamethasone for treating relapsed or refractory multiple myeloma after 1 or more treatments. NICE technology appraisal [ID6211]. Publication expected March 2025 Isatuximab with pomalidomide and dexamethasone for treating relapsed and refractory multiple myeloma. NICE technology appraisal guidance [ID4067]. Publication date to be confirmed Belantamab mafodotin with bortezomib and dexamethasone for treating relapsed or refractory multiple myeloma after 1 or more treatments. NICE technology appraisal guidance [ID6212]. Publication expected March 2025 **Related NICE guidelines:** Myeloma: diagnosis and management' (2018). NICE guideline 35 Haematological cancers: improving outcomes (2016). NICE guidance 47 **Related quality standards:** Haematological cancers (2017) NICE quality standard 150.
Related National Policy	The NHS Long Term Plan (2019) NHS Long Term Plan NHS England (2023) Manual for prescribed specialist services (2023/2024) NHS England (2020) Bendamustine for relapsed multiple myeloma (all ages). Clinical Commissioning Policy. Reference: 200604P

References

1. Cancer Research UK . Myeloma incidence statistics. Accessed 1 October 2024.
2. United Kingdom Fact sheet, International Agency for Research on Cancer. Accessed 1 October 2024.
3. Cancer Research UK. Cancer Statistics Data Hub. Accessed 1 October 2024.

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4. Cancer Research UK. Myeloma statistics. Accessed 1 October 2024.