

Supplementary Material

Supplementary Methods

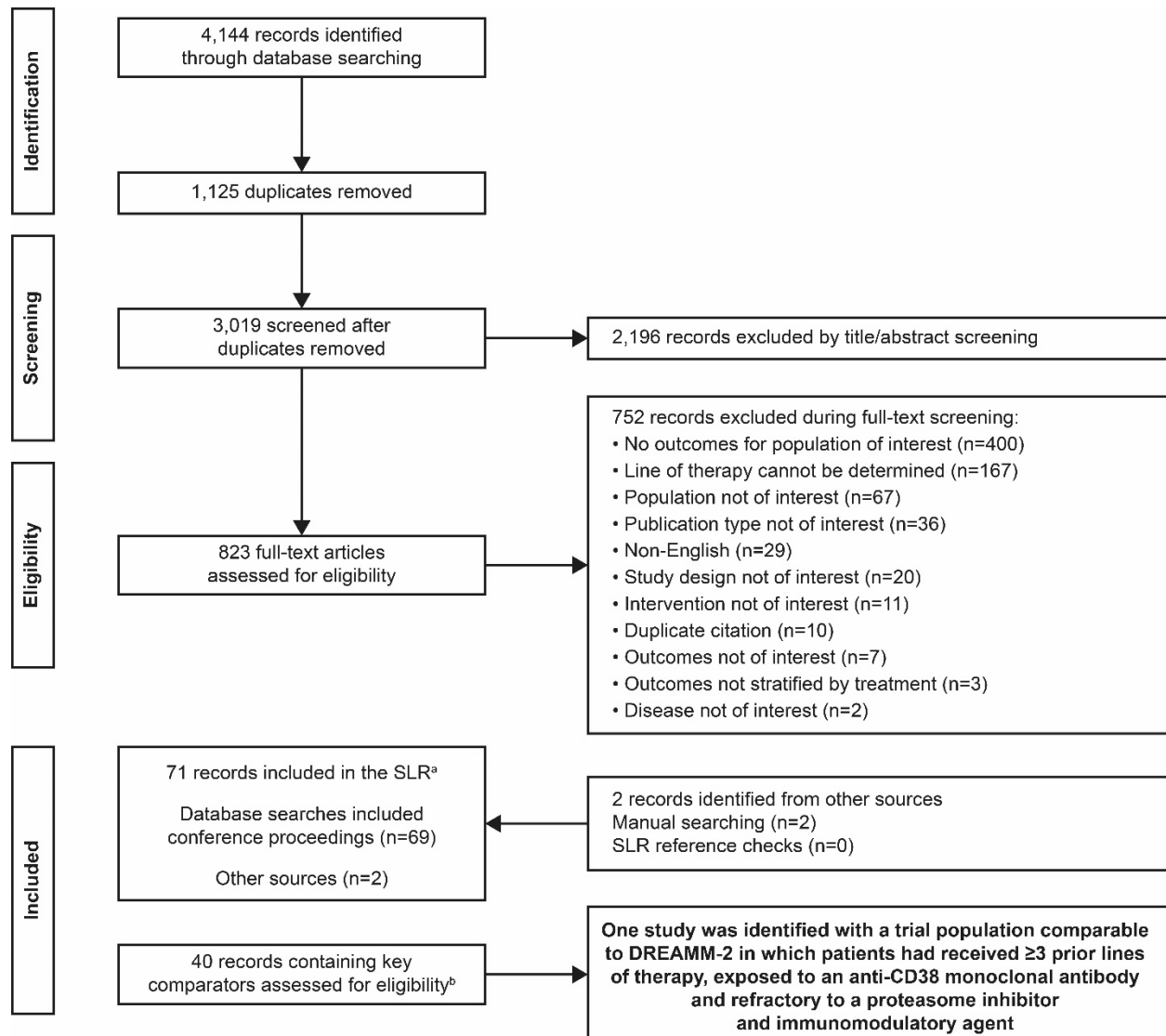
Model population inputs

The estimated number of treatment-eligible patients with relapsed/refractory multiple myeloma (RRMM) used in the budget impact model was informed by a recent epidemiology model in MM patients. The referenced epidemiology model was a compartmental model using differential equations to estimate patient population across five lines of therapy (LOT; LOT1, LOT2, LOT3, LOT4, and LOT5+). Patients transition over time across these LOTs with LOT transition defined as a change in therapy (due to progression, toxicity, or other reason). Each LOT had four further sub-compartments created based on stem cell transplant (SCT) and treatment type that included: SCT-eligible (patients who receive SCT); SCT-ineligible (patients who do not receive SCT); Anti-CD38 (patients who receive daratumumab treatment) and Other (patients who receive other types of treatments, excluding daratumumab).

The epidemiology model population was stratified into four sub-groups based on combinations of age and cytogenetic risk and included; <65 years with standard cytogenetic risk, <65 years with high cytogenetic risk, ≥65 years with standard cytogenetic risk and ≥65 years with high cytogenetic risk. Each of this sub-groups were then simulated, and the overall MM population was estimated by adding the specific sub-groups when the model reached a steady state.¹

The anti-CD38 specific treatment pathways can therefore estimate the number of patients aged <65 years of age and who have received ≥4 prior LOTs, including a proteasome inhibitor, an immunomodulatory agent, and anti-CD38 monoclonal antibody; that is used as an input in the budget impact model for a hypothetical commercial plan.

Supplementary Figure S1



^aThe SLR included a wider scope than the inclusion criteria of the DREAMM-2 study in order to provide an overview of the treatment landscape. ^bBelantamab mafodotin key comparators included the following treatments therapies (administered as mono- or combination): bortezomib, carfilzomib, daratumumab, dexamethasone, elotuzumab, ixazomib, lenalidomide, pomalidomide, and selinexor.

Abbreviations: SLR, systematic literature review.

Supplementary Table S1 Model inputs: AE management cost per episode

| | Aggregate cost per episode^a | Source |
|--------------------------------|---|--|
| Thrombocytopenia | \$1,075 | Roy 2015 ² ; ICER 2016 ³ ; Durie 2013 ⁴ ; Jakubowiak 2016 ⁵ ; Pelligra 2017 ⁶ ; Ailawadhi 2019 ⁷ |
| Neutropenia | \$1,732 | Roy 2015 ² ; ICER 2016 ³ ; Durie 2013 ⁴ ; Jakubowiak 2016 ⁵ ; Pelligra 2017 ⁶ ; Ailawadhi 2019 ⁷ |
| Anemia | \$1,940 | Roy 2015 ² ; ICER 2016 ³ ; Durie 2013 ⁴ ; Jakubowiak 2016 ⁵ ; Pelligra 2017 ⁶ ; Ailawadhi 2019 ⁷ |
| Leukopenia | \$2,944 | Roy 2015 ² ; Jakubowiak 2016 ³ ; Ailawadhi 2019 ⁷ |
| Lymphopenia | \$2,999 | Roy 2015 ² ; ICER 2016 ³ ; Jakubowiak 2016 ⁵ ; Ailawadhi 2019 ⁷ |
| Nausea | \$6,008 | ICER 2016 ³ ; Jakubowiak 2016 ⁵ ; Ailawadhi 2019 ⁷ |
| Diarrhea | \$6,061 | Roy 2015 ² ; ICER 2016 ³ ; Durie 2013 ⁴ ; Jakubowiak 2016 ⁵ ; Ailawadhi 2019 ⁷ |
| Keratopathy^b | \$3,287 | GSK data on file ⁸ |
| Fatigue | \$4,447 | Roy 2015 ² ; ICER 2016 ³ ; Jakubowiak 2016 ⁵ ; Pelligra 2017 ⁶ ; Ailawadhi 2019 ⁷ |
| Pneumonia | \$16,355 | Roy 2015 ² ; ICER 2016 ³ ; Durie 2013 ⁴ ; Jakubowiak 2016 ⁵ ; Ailawadhi 2019 ⁷ |
| Hypercalcemia | \$187 | Roy 2015 ² (assumption: same cost as hypocalcemia) |
| Hypophosphatemia | \$187 | Roy 2015 ² |
| Hyponatremia | \$187 | Roy 2015 ² |
| Hypokalemia | \$1,924 | Roy 2015 ² |
| Mental status changes | \$8,157 | HCUP 2016 ⁹ |

Notes: ^aCosts with multiple sources reported are the average of costs per episode reported across the listed publications; ^bCost for keratopathy is calculated based on the amount paid per encounter plus the COB per encounter. It is derived as the sum of values (patient cost-share is excluded). The sum was then inflated to \$2019 value using an inflation factor of 1.0173.

All costs were inflated to 2019 US dollars prior to deriving an average.

Abbreviations AE, adverse event; COB, coordination of benefit; HCUP, Healthcare Cost and Utilization Project; ICER, Institute for Clinical and Economic Review.

Supplementary Table S2 Model inputs for sensitivity analysis

| Parameter | Base case value | Lower bound value | Upper bound value |
|---|-----------------|-------------------|-------------------|
| Epidemiology | | | |
| Patients entering model in 2020, N | 11 | 9 | 13 |
| Patients entering model in 2021, N | 11 | 9 | 13 |
| Patients entering model in 2022, N | 11 | 9 | 13 |
| Market share | | | |
| Belamaf uptake in 2020 | 32.0% | 25.6% | 38.4% |
| Belamaf uptake in 2021 | 32.0% | 25.6% | 38.4% |
| Belamaf uptake in 2022 | 32.0% | 25.6% | 38.4% |
| Treatment duration, mean months | | | |
| Belamaf | 2.99 | 1.33 | 4.65 |
| SEL+DEX | 2.99 | 1.03 | 4.94 |
| Drug acquisition costs^a | Multiple inputs | 20.0% | 20.0% |
| Drug administration costs^a | Multiple inputs | 20.0% | 20.0% |
| Concomitant medication costs^a | Multiple inputs | 20.0% | 20.0% |
| Treatment monitoring costs^a | Multiple inputs | 20.0% | 20.0% |
| AE management costs^a | Multiple inputs | 20.0% | 20.0% |

AE, adverse event; belamaf, belantamab mafodotin; DEX, dexamethasone; SEL, selinexor.

^aFor all comparators: factor for lower and upper bound (increases and decreases in the base case value, respectively).

Supplementary Table S3 Scenario analysis: Commercial payer estimated costs over 3-year time horizon by regimen for patients who received ≥ 3 prior therapies^a

| Outcomes | Current market | Future market | Difference (future market – current market) | % Change |
|---------------------------------------|--------------------|--------------------|--|---------------|
| Treatment eligible patients, N | 48 | 48 | 0 | 0.0% |
| Patients receiving belamaf, N | 0 | 15 | 15 | - |
| Drug acquisition | \$2,373,729 | \$2,395,304 | \$21,575 | 0.9% |
| Belamaf | \$0 | \$1,105,356 | \$1,105,356 | - |
| SEL+DEX | \$2,167,562 | \$1,083,781 | -\$1,083,781 | -50.0% |
| BSC only | \$206,167 | \$206,167 | \$0 | 0.0% |
| Drug administration | \$0 | \$35,799 | \$35,799 | - |
| Belamaf | \$0 | \$35,799 | \$35,799 | - |
| SEL+DEX | \$0 | \$0 | \$0 | - |
| BSC only | \$0 | \$0 | \$0 | - |
| Concomitant medication | \$947 | \$729 | -\$218 | -23.1% |
| Belamaf | \$0 | \$255 | \$255 | - |
| SEL+DEX | \$947 | \$474 | -\$474 | -50.0% |
| BSC only | \$0 | \$0 | \$0 | - |
| Treatment monitoring | \$27,685 | \$39,085 | \$11,400 | 41.2% |
| Belamaf | \$0 | \$25,243 | \$25,243 | - |
| SEL+DEX | \$27,685 | \$13,842 | -\$13,842 | -50.0% |
| BSC only | \$0 | \$0 | \$0 | - |
| AE management | \$320,135 | \$233,486 | -\$86,648 | -27.1% |
| Belamaf | \$0 | \$73,419 | \$73,419 | - |
| SEL+DEX | \$320,135 | \$160,067 | -\$160,067 | -50.0% |
| BSC | \$0 | \$0 | \$0 | - |
| Subsequent treatment | \$314,333 | \$314,333 | \$0 | 0.0% |
| Belamaf | \$0 | \$157,167 | \$157,167 | - |
| SEL+DEX | \$314,333 | \$157,167 | -\$157,167 | -50.0% |
| BSC only | \$0 | \$0 | \$0 | - |
| Total cost | \$3,036,829 | \$3,018,736 | -\$18,093 | -0.6% |
| Belamaf | \$0 | \$1,397,238 | \$1,397,238 | - |
| SEL+DEX | \$2,830,662 | \$1,415,331 | -\$1,415,331 | -50.0% |
| BSC only | \$206,167 | \$206,167 | \$0 | 0.0% |

Notes: ^aIncluding an anti-CD38 monoclonal antibody, a proteasome inhibitor, and an immunomodulatory agent.

Abbreviations: AE, adverse event; belamaf, belantamab mafodotin; BSC, best supportive care; DEX, dexamethasone; SEL, selinexor.

Supplementary Table S4 Scenario analysis: Commercial and Medicare budget impact outcomes over 3-year time horizon for patients who received ≥3 prior therapies^a

| Outcomes^a | Current market | Future market | Difference (future market – current market) | % Change |
|-------------------------------------|-----------------------|----------------------|--|-----------------|
| Commercial payer perspective | | | | |
| Total cost PMPM | \$0.08 | \$0.08 | -\$0.0005 | -0.6% |
| Total cost PTMPM | \$5,352.73 | \$5,320.83 | -\$31.89 | -0.6% |
| Total cost PMPY | \$1.01 | \$1.01 | -\$0.01 | -0.6% |
| Total cost PTMPY | \$64,232.70 | \$63,850.02 | -\$382.68 | -0.6% |
| Medicare perspective | | | | |
| Total cost PMPM | \$0.27 | \$0.26 | -\$0.0046 | -1.7% |
| Total cost PTMPM | \$5,322.35 | \$5,230.90 | -\$91.45 | -1.7% |
| Total cost PMPY | \$3.20 | \$3.14 | -\$0.05 | -1.7% |
| Total cost PTMPY | \$63,868.22 | \$62,770.83 | -\$1,097.39 | -1.7% |

Notes: ^aIncluding an anti-CD38 monoclonal antibody, a proteasome inhibitor, and an immunomodulatory agent.

Abbreviations: PMPM, per member per month; PTMPM, per treated member per month; PMPY, per member per year; PTMPY, per treated member per year.

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