

Abstract Submission

35. *Quality of life, palliative & supportive care, ethics and health economics*

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TOLERABILITY OF TREATMENTS FOR RELAPSED/REFRACTORY MULTIPLE MYELOMA: A SYSTEMATIC REVIEW

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Does the study abide by applicable national and international regulations and guidelines, including but not limited to ethical committees, data protection and privacy regulations, informed consent and off-label use of drugs?: Yes

Background: Multiple myeloma is a fatal cancer characterized by excessive proliferation and improper function of plasma cells in the bone marrow.

Aims: To conduct a systematic literature review of the tolerability of treatments for relapsed/refractory multiple myeloma.

Methods: We searched MEDLINE, Embase, and the Cochrane Library for English language full-text articles published between 2000 and 2018 reporting results from randomized controlled trials of treatments for relapsed/refractory multiple myeloma. Two independent investigators screened article titles and abstracts for eligibility and subsequently reviewed full-text versions of selected records. For all articles included in the review, the following data were extracted: Author, year of publication, setting, sample, treatments, and tolerability results.

Results: The search resulted in the identification of 3488 unique publications. Of these, 3188 were excluded following title and abstract screening and 75 after full-text review. A total of 22 articles were included for data synthesis. Identified randomized controlled trials involved an average of 477 patients (range: 80 to 768) and covered a total of 14 interventions for relapsed/refractory multiple myeloma. Of these, 14% were monotherapies and 86% combination therapies. Across included randomized controlled trials, the most frequently occurring adverse event during treatment was neuropathy, observed in 1%–67% of patients, followed by thrombocytopenia (1%–57%), pain (1%–24%), neutropenia (1%–52%), and diarrhea (1%–68%). Treatment discontinuation (all causes) was reported at between 31% and 95%, and discontinuation due to adverse events at between 7% and 34%.

Summary/Conclusion: Current therapies for relapsed/refractory multiple myeloma are associated with several serious adverse events, resulting in treatment discontinuation. Yet, tolerability profiles vary markedly between interventions and patient populations. These data should be helpful to inform therapeutic decisions in relapsed/refractory multiple myeloma to enhance patient satisfaction and treatment compliance.

Keywords: Multiple myeloma, Neutropenia, Systematic review, Thrombocytopenia