Understanding the Impact of Congress Abstracts on Overall Publications in Multiple Myeloma (MM): Results of a Systematic Literature Review

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Background

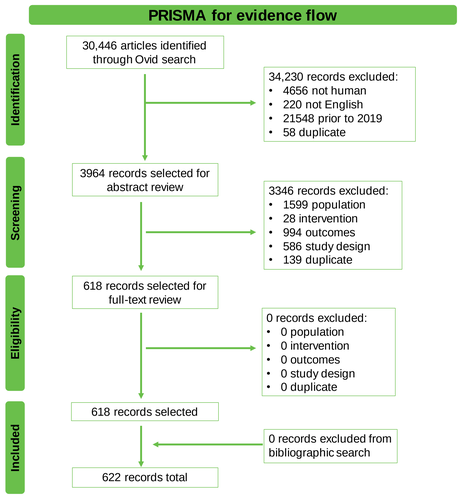
- Multiple myeloma (MM) is a malignant plasma cell disorder that is characterized by multiple relapses.[1]
- Various treatment options are available to control the progression of MM.[2] Nevertheless, MM is incurable for most patients.[1]
- Due to the high burden of disease and increased number of therapeutic options within MM, abstracts and posters presented at annual scientific meetings or congresses are an important route for disseminating current datasets.

Objective: The objective of this study was to characterize the patterns of congress abstract publications in MM through a systematic literature review.

Methods

- An SLR was performed in accordance with the Preferred Reporting Item for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (**Figure 1**).
- The SLR was a review of all relevant interventional and real-world congress abstracts reporting efficacy/effectiveness, safety, health-related quality of life (HRQoL) or economic outcomes.
- The EMBASE, MEDLINE, and Cochrane databases were systematically searched between January 2019 and December 2020 to identify all congress abstracts published in the past two years.
- The scope of this study was defined in terms of the Patient population, Intervention, Comparators, Outcome measures, and Study design (PICOS) criteria (**Table 1**).
- The selected abstracts were extracted and categorized using the PubTracker™ platform.

Figure 1



Abbreviations: ASBMT, American Society for Blood and Marrow Transplantation; ASCO, Annual Meeting of the American Society of Clinical Oncology; ASH, Annual Meeting of the American Society of Hematology; BSH, Annual Scientific Meeting of the British Society for Hematology; CIBMTR, Center for International Blood & Marrow Transplant Research; EMBT, Annual Meeting of the European Society for Blood and Marrow Transplantation; EHA, Congress of the European Hematology Association; HRQoL, health-related quality of life; IMW, International Myeloma Workshop; MM, multiple myeloma; NDMM, newly diagnosed multiple myeloma; RRMM, relapsed, refractory multiple myeloma; PRISMA, Preferred Reporting Item for Systematic Reviews and Meta-Analyses; PRO, patient-reported outcome; QALY, quality-adjusted life-year; RCT, randomized control trial; RWE, real-world evidence; SIE, The Italian Society of Hematology National Congress; SLR, systematic literature review; TCT: Transplantation & Cellular Therapy Meetings of the ASBMT and the CIBMTR.

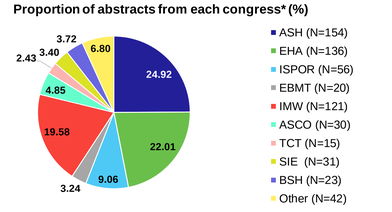
Table 1. PICOS criteria for SLR

PICOS	
Patient population	Patients diagnosed with MM
Intervention and Comparators	Any treatments or managements for MM
	No treatment for disease status studies
Outcome measures	Any efficacy or safety outcomes
	HRQoL
	Any PROs including caregiver-reported outcomes
	Utilities/disutilities /QALYs for health states or adverse events
	Economic evaluation
	Budget impact analysis
	Burden of illness
	Measures of costs and resource use
	Epidemiologic studies
	Treatment patterns
Study design	RCTs (including extension studies)
	Single-arm interventional trials
	Sub-group analyses of previously published studies
	Reports of RCTs assessing HRQoL
	Development and/or validation of HRQoL measures
	Observational studies measuring PROs
	Retrospective chart audits and database analyses reporting PROs
	Patient surveys reporting PROs
	Reports of mapping exercises for any outcome measure to utility
	Reports of utility elicitation exercises
	Reports of utility validation exercises
	Reports of economic evaluations using utility measures elicited during the studies
	Budget impact analysis studies
	Resource use studies
	Cost/economic burden of illness studies
	Cost-benefit, cost-effectiveness, cost-minimization, or cost-utility analyses
	Cost analyses
	RWE studies
	Systematic reviews and meta-analyses (for cross-checking only)
	Pooled analyses (for cross-checking only)

Results

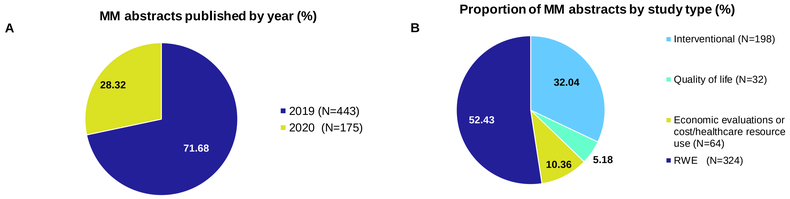
- In the past 2 years, of a total of 3964 citations within MM, 618 (15.6%) were congress abstracts.
- The congress of origin was most frequently ASH (24.9%), followed by EHA (22%), IMW (19.6%), ISPOR (9.1%), ASCO (4.9%), BSH (3.7%), SIE (3.4%), EBMT (3.2%), TCT (2.4%), and others (6.8%).
- Almost three times as many relevant abstracts were published in 2019 (71.7%) compared to 2020 (28.3%), likely due to the impact of the COVID-19 pandemic leading to cancellations or virtual meetings.
- Within the congress abstracts identified, the majority (52.4%) were real-world studies, followed by interventional studies (32.04%), reporting effectiveness/efficacy and safety outcomes.
- Congress abstracts reporting economic and HRQoL outcomes were less frequent (10.4% and 5.2%, respectively).
- Studies were most commonly conducted in the United States (29.1%), and 5.7% were multinational.

Results: Figure 2



*Congresses shown had 10 or more citations.

Results: Figure 3



Results: Table 2. Countries represented in MM abstracts for the years 2019 and 2020

Country	Percentage (%) of abstracts from each country
Canada	2.1
China	3.7
France	3.7
Germany	5.0
Italy	6.6
Japan	2.9
Spain	5.7
United Kingdom	6.2
United States	29.1
Multinational	5.7
Other	29.3

Conclusions and limitations

Conclusions: Congress abstracts are an important source of evidence within the ever-changing therapeutic landscape of MM and are increasingly utilized to disseminate data obtained in the real-world setting. Almost half of all identified congress abstracts were presented at ASH, EHA, and IMW, demonstrating the need for these congresses to be closely tracked.

Limitations:

- Selected abstracts were limited to 2019 and 2020 and to those published in the English language.
- The quality of studies presented in the included abstracts was not evaluated.
- The SLR was limited to abstracts and no full texts were selected.

References

1. Bird SA, Boyd K. Multiple myeloma: an overview of management. Palliat Care Soc Pract. 2019;13:1178224219868235. https://doi.org/10.1177/1178224219868235
2. NCCN. "NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Multiple Myeloma NCCN Evidence Blocks Version 5.2021 - March 15, 2021," 2021. https://www.nccn.org/professionals/physician_gls/pdf/myeloma_blocks.pdf.