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POSTER ABSTRACTS

903.HEALTH SERVICES AND QUALITY IMPROVEMENT -MYELOID MALIGNANCIES

Medical Writing Bias in Myeloma Clinical Research: A Comprehensive Analysis

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Background
Previous studies investigating associations between pharmaceutical funding and clinical trial results have found ties between pharmaceutical sponsorship and results favoring the sponsor's interests. There are no studies examining potential sponsorship bias within the field of multiple myeloma (MM). Addressing sponsorship bias is essential to ensure reliability, validity, and ethical conduct of clinical research in the field of MM. This study analyzes potential sponsorship bias in MM specifically regarding use of medical writers that are employees of or directly funded by pharmaceutical companies among published clinical research studies of drugs approved to treat MM from January 2000 - March 2023.
Methods
Clinical study papers from PubMed between January 2000 and March 2023 were analyzed if at least 1 of the 10 following drugs were evaluated: bortezomib (BORT), carfilzomib (CARF), daratumumab (DARA, elotuzumab (ELO), isatuximab (ISA), ixazomib (IXA), lenalidomide (LEN), panobinostat (PAN), pomalidomide (POM), and selinexor (SELI), and the manufacturer of the drug(s) sponsored the study (N=1466). Papers were considered to contain potential medical writing bias if the paper was written by employees of the manufacturer of the drug(s) or medical writers directly funded by the manufacturer. Papers were analyzed by year, drug, and journal in which it was published.
Results
From 2000 - March 2006, no potential writing bias occurred. In 2007, it first became apparent when 4% (2/53) of papers showed bias which has increased as follows: 2008 - 2012 [14% (41/300)], 2013 - 2017 [25% (100/405)], 2018-2022 [33% (171/521)], and increased to 44% (12/27) in 2023. We also analyzed writing bias according to the specific drugs from January 2000 - March 2023 with the following rates of potential bias: ISA 93% (26/28), IXA 77% (36/47), DARA 76% (63/83), ELO 71% (17/24), SELI 62% (8/13), POM 55% (27/49), PAN 50% (9/18), BORT 47% (47/100), LEN 46% (75/163) and CARF 32% (15/47). Potential writing bias was also determined according to the specific medical journal in which the paper was published from 2000 - March 2023. Blood and British Journal of Haematology have the highest number of potentially biased manuscripts at 42 and 30, respectively, representing 25% (42/142) and 21% (30/143) of the papers published, respectively. New England Journal of Medicine and Lancet have high percentages of potential writing bias at 33% (9/27) and 46% (6/13), respectively. Many journals have 100% (n=6) but these sources only had 1 paper meeting the study criteria.
Conclusion
Since 2000, we have observed an alarming increase in the rate of clinical research papers evaluating drugs approved to treat MM which have been written by pharmaceutical company employees or medical writers directly funded by them. Notably, nearly half (44%) of papers published this year showed potential writing bias. Rates varied greatly between different drugs with ISA, IXA and DARA showing the highest rates of writing bias whereas BORT, LEN and CARF showed the lowest rates. Specific journals including Blood and British Journal of Haematology both show high numbers of papers with potential writing bias; and, furthermore, a high percentage of papers published in high impact journals such as the New England Journal of Medicine and Lancet show this type of potential bias. This practice of allowing medical writing to be carried out by those with direct ties to the pharmaceutical company is likely to result in the publication of papers with results and conclusions regarding the efficacy and safety of drugs that are biased which compromises their scientific integrity and objectivity.

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