The majority of citations identified by PubMed Central also were

RESULTS

OBJECTIVE

BACKGROUND

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To compare the utility of 2 commonly used search engines, Google Scholar and PubMed Central, for retrieval of citations in the peer-reviewed literature

METHODS

We selected 2 publications of phase 3 clinical trials from our publication plan and comparable publications of phase 3 trials in metastatic breast cancer and advanced lung cancer in high-impact journals (J Clin Oncol and N Engl J Med, respectively) for this analysis

Citation of the publications in metastatic breast cancer (MBCPub1 and MBCPub2) or advanced lung cancer (LungPub1 and LungPub2) was followed from the time of publication using the “cited by” tools in PubMed Central and Google Scholar

The number and types of citations identified were assessed using the following categories: preclinical phase 1 or 2 trial, phase 3 trial, secondary analyses of a clinical study, cost analysis, meta-analysis, and review

An “other” category was used for editorials/letters to the editor, supplements, web pages, case study books, chapters, meeting summaries, newsletters, and patents that were retrieved by each search

The recall rate (ie, calculated as total number of clinical articles/total number of citations available), uniqueness of returns, and types of citations returned were assessed

RESULTS

Seventeen (21%) were non–peer-reviewed items appearing in both databases. Sixty-seven GS items (21%) were non–peer reviewed publications, including patents, theses, and continuing education materials. Of the 254 GS items, 92 (36%) were non–peer-reviewed items appearing in both databases. Of the 148 citing publications identified, 36 (24%) appeared in both databases. Of the 321 citing publications identified, 38 (12%) appeared in both databases

The recall rate for peer-reviewed clinical trial publications that cited MBCPub2 was higher for Google Scholar (n = 23; 15%) vs PubMed Central (n = 13; 9%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

The recall rate for peer-reviewed clinical trial publications that cited LungPub1 was higher for Google Scholar (n = 11; 19%) vs PubMed Central (n = 5; 3%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

The recall rate for peer-reviewed clinical trial publications that cited LungPub2 was higher for Google Scholar (n = 24; 20%) vs PubMed Central (n = 17; 10%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

CONCLUSIONS

Google Scholar retrieved a higher overall number of items and proportion of peer-reviewed clinical articles compared with PM, and Google Scholar may be a better option for determining publication reach. The use of both databases may provide the most accurate publication metrics

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Assessment of Publication Metrics: Google Scholar vs PubMed Central

Kathleen Covino, PharmD,1 Priyali Dhar Chowdhury, PhD,2 Ji-May Jen, PharmD,2 Caitlin E. Lentz, PharmD,3 Michele Patton, CMP,1 Melanie Blanchard, CMP,1 and Gina Fusaro, PhD2

1 Nucleus Global, Hamilton, NJ, USA; 2 Celgene Corporation, Summit, NJ, USA; 3 Rutgers Institute for Pharmaceutical Industry Fellowships, Ernest Mario School of Pharmacy, Rutgers University, NJ, USA

ABSTRACT

OBJECTIVE

To compare the utility of 2 commonly used search engines, Google Scholar and PubMed Central, for retrieval of citations in the peer-reviewed literature

METHODS

We selected 2 publications of phase 3 trials from our publication plan and comparable publications of phase 3 trials in metastatic breast cancer and advanced lung cancer in high-impact journals (J Clin Oncol and N Engl J Med, respectively) for this analysis

Citation of the publications in metastatic breast cancer (MBCPub1 and MBCPub2) or advanced lung cancer (LungPub1 and LungPub2) was followed from the time of publication using the “cited by” tools in PubMed Central and Google Scholar for the specific citation. The recall rate (ie, total number of clinical articles/total number of citations available) was calculated for each database

CONCLUSIONS

Google Scholar retrieved a higher overall number of items and proportion of peer-reviewed clinical articles compared with PubMed Central

Nonclinical trial publications retrieved by Google Scholar included editorials, case studies, workshop discussions, supplements, and book chapters

The proportion of non-Medicare-indexed publications retrieved by Google Scholar is too low

Based on our experience, Google Scholar appears to be a better option for determining publication reach. However, the use of both databases may provide the most accurate publication metrics

RESULTS (cont)

The recall rate for peer-reviewed clinical trial publications that cited MBCPub2 was higher for Google Scholar (n = 23; 15%) vs PubMed Central (n = 13; 9%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

LungPub1 was higher for Google Scholar (n = 11; 19%) vs PubMed Central (n = 5; 3%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

The recall rate for peer-reviewed clinical trial publications that cited LungPub2 was higher for Google Scholar (n = 24; 20%) vs PubMed Central (n = 17; 10%) and Google Scholar retrieved a broader range and higher number of clinical trial publications, citations, and meta-analyses

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