**BACKGROUND**

- Up-to-date SLRs are required for healthcare reimbursement decisions.
- Unfortunately, comprehensive SLRs are time-consuming, labor-intensive, and often outdated by the time of completion.
- Requiring the most up-to-date data, recent reimbursement decisions have been made based on data presented in a congress abstract. However, SLRs commonly overlook congress presentations overlooked due to late indexing.
- Further, SLRs of real-world evidence (RWE) are rarely conducted.

**OBJECTIVE**

A computer-assisted method for systematic review of relevant congress publications in real-time was designed.

**METHODS**

- The SLR “PubTracker” tool was used to search 23 oncology and health economics congresses in 2018, following PRISMA guidelines with scope defined in terms of AML-specific PICOS criteria (Population, Intervention, Comparators, Outcomes and Study Design), within 1 day of abstract release.
- Computer-assisted searching, identification and extraction methods were developed to expedite the review and replace one of 2 guideline-required trained researchers.
- RWE, quality of life (QOL), economic and interventional studies were identified and extraction of key data was performed.
- The timing of evidence identification (publications per month) was compared to a traditional SLR collecting interventional, QOL, and economic evidence and updated semi-annually.

**RESULTS**

- In the initial congress search, a total of 694 AML relevant congress presentations were identified at publication by the PubTracker tool (months: # publications): April: 4, May: 15, June: 185, August: 2, October: 2, November: 252, December: 234 (excludes months with 0 publications).
- Of these, 612 were RWE (conducted in 59 countries), 40 quality of life, 29 economic (19 resource use/cost studies, 7 cost-effectiveness analyses, 2 indirect treatment comparisons, 1 budget impact analysis), and 13 interventional.

**CONCLUSIONS**

Our real-time, computer-assisted SLR tool allowed for earlier identification of potentially relevant congress presentations, solving an underlying problem with timeliness and comprehensiveness of traditional SLR approaches.

Considering the fast pace of regulatory approvals and the necessity of up-to-date evidence in the reimbursement process, computer-assisted real-time SLR tool offers significant value to researchers.