**METHODS**

A review of English-language 2017 titles and abstracts in PubMed and Elsevier was performed. The search was broad and limited to the term “real world.” Titles and abstracts were screened, with the assumption that high-level study design was adequately captured within the abstract of a peer-reviewed publication.

The following were extracted based on information in the abstract: therapeutic area, exposure type, study design, primary outcome, timing of outcome, country, and data source. Descriptive analyses were performed.

**OBJECTIVE**

To evaluate the use of RWE in publications from 2017.

**RESULTS**

- There were 3,545 titles for “real-world” publications in 2017. Of these, 3,407 were included because they included an abstract (n = 172) or were not restricted to provision of health care (n = 223), 700 were reviewed the analysis.
- Overall, most studies were retrospective (67%) versus cross-sectional (28%), 67% evaluated outcomes of a drug, 18% evaluated devices.
- Almost half of the studies (46%) used existing data sources and compared data (32%) and claims data (20%) in Figure 2.
- More than half of the studies (n = 1775; 59%) focused on three therapeutic areas: cardiovascular disease (n = 802; 35%), oncology (n = 1026; 46%), and infectious disease (n = 176; 12%) (Figure 2).
- Almost all infectious disease studies (92%) and most oncology studies (76%) evaluated outcomes of drugs. However, cardiovascular studies evaluated both drugs and devices equally (49% and 46%, respectively).
- There was a wide distribution of oncology led by breast cancer (50%) and non-small cell lung cancer (11%). Example articles from non-cancer oncology studies are shown in Figure 2.
- Infectious disease studies were dominated by hepatitis C (50%) followed by hepatitis B (21%). Example articles from real-world infectious disease studies are shown in Figure 2.
- Antithrombotic (23%) and coronary artery disease (20%) comprised the bulk of studies in cardiovascular disease. Example articles of non-cancer oncology studies are shown in Figure 2.
- The primary outcomes most infectious disease studies were effectiveness (50%). Cardiovascular and oncology disease studies primarily evaluated effectiveness (48% and 42%, respectively) and treatment benefits (41% and 41%, respectively) (Figure 3).

**BACKGROUND**

- There are few definitions for “real-world” (RWE) or “real-world evidence” (RWE) that are increasingly common in recent years.
- RWE is often described as consisting of observational clinical settings.
- RWD is observed from metrics beyond the actual setting of use.
- In PubMed, we used the terms used these terms, through 2006, fewer than 20 articles per year were used, and in 2017 more than 1,000 publications used them. Despite the increase in publications, it is unclear which types of studies are being presented as RWE.

**DISCUSSION**

- RWD is crucial to demonstrate the utilization, safety, and effectiveness of health technologies outside clinical trials.
- As the number of RWE studies is expected to increase over the coming years, we recommend that reporting guidelines (such as the ISPOR/ISPE guidelines) be adopted and utilized.

**REFERENCES**