Interactive Questions

Question 1:

Which of the following would result in publication bias?

- Trials with negative results were not published and could not be selected in the systematic review.

Explanation:

Only this answer (a) corresponds to publication bias (the whole trial results are made or not made publicly available according to the nature and direction of the results); (b) corresponds to citation bias (citation or non-citation of a trial report, depending on the nature and direction of the results); (c) corresponds to language bias (the publication of trial results in a particular language) and (d) corresponds to duplicate publication bias (multiple publication of trial results). Answer (e) All of the above correspond to reporting biases.

- Trials with statistically significant results were cited more often by subsequent articles, increasing the likelihood of being selected in the systematic review.

- Trials were published in languages other than English and could not be selected in the systematic review.

- Trials were published more than once, increasing the likelihood of the trial being selected in the systematic review.

- All of the above.

Question 2:

Searching beyond bibliographical databases for a systematic review potentially reduces

- Publication bias.

- Validity of the systematic review.
Outcome reporting bias.

Labor intensity of the search.

Answers A and C.

**Explanation:**

Searching sources such as conference proceedings, clinical trial registries, or regulatory agency websites may allow identifying trials with unpublished results, thus reducing publication bias; in particular, primary and secondary outcomes are pre-specified in clinical trial registries, thus allowing reducing outcome reporting bias.

**Question 3:**

The sources to search for published trials include

- MEDLINE only.
- the Cochrane Central Register of Controlled Trials.
- the Cochrane Database of Systematic Reviews.
- EMBASE

Answers B, C and D.

**Explanation:**

Searching MEDLINE only is insufficient as many relevant published trials are indexed in other databases such as EMBASE and CENTRAL. Searching (c) would allow identifying previous systematic reviews on the same topic and screening the lists of selected trials.

**Question 4:**

The sources to search for unpublished trials include

- clinicaltrials.gov
alltrials.net

Drugs@FDA

Proceedings to the American Academy of Dermatology Annual Meeting

A, C and D

Explanation:

Answers (a), (c), and (d) correspond respectively to a clinical trial registry, a regulatory agency website, and a conference proceedings repository. Answer (d) corresponds to the website of an initiative calling for registration and reporting of results of all clinical trials.

Question 5:

Some limitations of sources of unpublished trials are

Clinical trial registries include ongoing and completed trials and potentially posted trial results.

Reviews obtained from regulatory agencies typically lack sufficient detail to assess the risk of bias for a trial.

Conference abstracts are not restricted by treatment type (pharmacological and non pharmacological).

Searching conference abstracts, clinical trial registries, regulatory and health technology assessment agency website is burdensome.

Answers B and D.

Explanation:

Reviews obtained from regulatory agencies typically include few details about the trial methodology itself but they can be complemented with information from the trial protocol.
or a journal article. Another limitation is that comprehensive searching adds to the resources needed to complete the systematic review.