**Appendices**

**Appendix 1: Boolean search algorithm for identifying literature of antimicrobial-based dry cow therapy approaches for cure and prevention of intramammary infections**

The search strategy has been developed after an iterative process that involved test searches of different search terms and combinations of terms. Starting with general free-text words describing each component of our PICO questions, refinements have been made to get search index terms that fit each bibliographic database such as MESH terms for MEDLINE and thesaurus terms CAB Abstracts.

***General keys words:***

Population

Cow\* OR Cattle OR Bovine\* OR Bovidae

Interventions

Antibiotic\* OR antibacterial\* OR anti-bacterial\* OR anti-microbial\* OR antimicrobial\* OR anti-infective\* OR antiinfective\* OR therap\* OR treatment\* OR seal\*

Outcomes

Intramammary infection\* OR Intra mammary infection\* OR Intra-mammary infection\* OR Mastitis OR udder health OR IMI

Period

Dry-off OR Dry off OR Drying-off OR Drying off OR Dry period\* OR Drying period\*

***Medline (***[***https://www.ncbi.nlm.nih.gov/pubmed***](https://www.ncbi.nlm.nih.gov/pubmed)***) Mesh*** ***terms***

Population

"Cattle"[Mesh]

Interventions

"Anti-Infective Agents"[Mesh]

Outcomes

"Mastitis, Bovine"[Mesh]

***CAB Abstracts*** ***(***[***http://ovidsp.ovid.com/autologin.cgi***](http://ovidsp.ovid.com/autologin.cgi)***)***

***Thesaurus terms***

Population

exp dairy cows/ OR exp dairy cattle/

Interventions

exp antiinfective agents/ or exp antibiotics/

Outcomes

exp mastitis/

Period

exp dry period/

***Web of Science (https://login.webofknowledge.com)***

(Cow\* OR Cattle OR Bovine\* OR Bovidae) AND (Antibiotic\* OR antibacterial\* OR anti-bacterial\* OR anti-microbial\* OR antimicrobial\* OR anti-infective\* OR antiinfective\* OR therap\* OR treatment\* OR seal\*) AND (Intramammary infection\* OR Intra mammary infection\* OR Intra-mammary infection\* OR Mastitis OR udder health OR IMI) AND (Dry-off OR Dry off OR Drying-off OR Drying off OR Dry period\* OR Drying period\*)

**Appendix 2: Screening tool for eligibility of articles to be included in reviews on antimicrobial-based dry cow therapy approaches for cure and prevention of intramammary infections.**

Six-question checklist with three different options: *Yes* (Y); *Unsure* (US); or *No* (N). Answering *Yes* or *Unsure* for all the questions will pass the citation to the next review stage and the article will be procured. Consequently, by selection of *No* for at least one question the article will be excluded.

|  |  |
| --- | --- |
| Questions | Response(Y/N/US) |
| Q1. Does the title/abstract describe original research (as opposed to a review)? |  |
| Q2. Does the title/abstract describe a field-based study? |  |
| Q3. Does the title/abstract describe dairy cows at drying-off? |  |
| Q4. Does the title/abstract evaluate at least one antibiotic? |  |
| Q5. Does the title/abstract evaluate at least one of the dry cow therapy approaches (SDCT, BDCT)?  |  |
| Q6. Does the title/abstract report at least one outcome related to preventing or curing IMI? |  |