

Wound healing excipients in topical formulations for veterinary use: a scoping review protocol

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Background: Wound healing in dogs and cats is a highly relevant topic in veterinary medicine, given the frequency with which these animals suffer skin lesions of various origins, such as trauma, surgery and burns. [1]. The development of formulations for pets takes into account particularities such as coat types, behavior and skin sensitivity [2]. Although excipients are by definition pharmacologically inactive, recent studies have shown that they can make a positive contribution to topical formulations with a regenerative function. The aim of this study is to identify the the main excipients most commonly used in topical formulations with wound healing properties in small to medium-sized pets. **Methods:** A protocol for a scoping review was drafted following the guidelines of PRISMA for Scoping Reviews. The research question was defined using the *PICo* strategy, an acronym for *Problem* (wound healing), *Interest* (excipients for topical formulations) and *Context* (veterinary medicine aimed at pets, such as dogs and cats). To identify potentially relevant documents, the PubMed and Scopus databases will be searched from 2005 to april 2025. The search strategies were drafted with the help of an experienced librarian and further refined through team discussion. The final search results will be exported into Rayan ® software, and duplicates will be removed. The search will be supplemented by hand-searching in websites of relevant institutions in the area such as EMA and Infarmed and also by scanning references of relevant reviews. Inclusion and exclusion criteria will be considered to ensure the quality of the selected studies. To increase consistency, all reviewers will screen the same publications, discuss the results and amend the screening and data extraction manual before beginning screening for this review. Two reviewers working in pairs sequentially will evaluate the titles, abstracts and then full text of all publications. The disagreements on study selection and data extraction will be resolved by consensus and discussion with a third reviewer if needed. [3] The data will be organized and presented in a table of defined variables. Beyond extracting basic descriptive data about the included sources of evidence (e.g., authors, year of publication, title), the data to be extracted should be consistent with the review question and the inclusion criteria. **Results:** Our study can demonstrate that substances such as carboxymethylcellulose, hyaluronic acid and lipids of plant origin are examples that have proven effective in improving skin hydration and accelerating wound healing.

Keywords: excipients, topical administration, wound healing, dog, cat

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