

# SKIN SYMPTOMS IN VETERINARY ASSISTANT STAFF AND VETERINARIANS: A CROSS-SECTIONAL STUDY

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## BACKGROUND

The risk for veterinarian and their assistants of developing occupational dermatitis is high. The exposures to hazardous chemicals, biological organisms, irritants and frequent wetwork are prevalent in their everyday activities. To identify the causes associated with occupational dermatitis in veterinarian practice, this study aimed to examine the incidence of skin issues and the factors that contribute to them.

The study's primary focus was the prevalence of self-reported hand eczema (HE) and its predisposing factors, as well as related skin conditions such as atopic dermatitis (AD), contact urticaria (CU), and allergic contact dermatitis (ACD).

## OBJECTIVES AND METHODS

This cross-sectional design study reviewed one hundred and three (103) veterinary assistant staff and nineteen (19) veterinarians skin conditions. A detailed questionnaire evaluated participants skin symptoms, along with specific IgE determination, and photographs of hands. A logistic regression model assessed the participants predisposing factors.

The study's comprehensive questionnaire gathered data on the participant's health status, including their personal and family medical histories, smoking habits, and contact with animals both inside and outside of work. The questionnaire also inquired about previous health issues and symptoms, such as rhinitis, rhino-conjunctivitis, asthma, and potential and/or pre-existing skin conditions. Additionally, detailed questions regarding hygiene and preventative measures, such as the use of moisturizers, protective gloves, and cleaning and disinfectant products were collected.



## RESULTS

Veterinarian assistants represented ninety percent (90%) of participants. The results of this study found a statistically significant relationship between hand eczema, hand washing frequency, and unprotected contact with fluids/tensides (detergents). Although the study failed to demonstrate a relationship between hand eczema and other variables, the authors suggested that veterinary assistants are at a higher risk of developing occupational dermatitis due to their assigned roles. Additionally, the study reported findings on the worsening of skin conditions potentially associated with more experienced veterinarians due to hand disinfectants, glove products, and unprotected contact with fluids/tensides. The 1-year prevalence of hand eczema among the study population was over 50% (n=62/122), with 27 participants reporting redness and contact urticaria immediately after animal contact. Furthermore, 29% (n=35/122) participants reported having a positive history of allergic contact dermatitis.

Reported Occupational Dermatitis	Characteristics	Results
Hand eczema	60/122 subjects	50%
Allergic contact dermatitis	35/113 subjects	31%
Confirmed Occupational Dermatitis	Factors	p-Value
Hand eczema	Hand washing frequency	<b>0.027</b>
Hand eczema	Unprotected contact to fluids/tensides	<b>0.005</b>

## CONCLUSION

This cross-sectional study questionnaire study has shown the main two factors associated with occupational skin dermatitis which included the frequency of hand washing and unprotected exposure to fluids/tensides. The prevalence of hand skin symptoms, such as HE, is higher amongst female than males. Study subjects have reported poor hand hygiene compliance and infection control practices, with contradictory reports of skin protection plans with the assistants, unlike the veterinarian practice owners, who did not report such plans in place. The author concludes the urgent need to address primary preventive measures and guidelines in veterinarian practice. To prevent this occupational dermatitis, it is essential to avoid risk factors, such as excessive hand washing and unprotected and unnecessary contact with irritants, fluids, and tensides. Furthermore, education seminars and dermatologists' intervention are actions proposed in changing the course of occupational skin dermatitis of veterinarians and their staff.



## APPLICATION FOR PRACTICE

1



Do not wait, consult a dermatologist or allergologist, when signs and symptoms of dry, itchy skin appear

2



Get educated in measures to prevent and manage occupational skin disease

3



Appropriate use and selection of gloves to reduce risk

Note: This clinical summary is written by clinicians at Ansell Healthcare Products LLC. Please refer to the actual study for full text information.

Beine A., Gina M., Hoffmeyer F., et al., Skin symptoms in veterinary assistant staff and veterinarians: A cross-sectional study. *Contact Dermatitis* 2022;87:247-257.

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