# Scoring Otitis Externa

Canine otitis externa is among the most common medical problems in dogs. Lack of an accepted, uniform scoring system of disease severity makes it difficult to compare published clinical trials.

This pilot study aimed to develop and assess an objective clinical scoring system. The Otitis Index Scores (OTIS) assessed severity and response to treatment and used 0-3 (OTIS3) and 0-5 (OTIS5) scales for assessment of erythema, edema/swelling, erosions/ulcerations, exudate, and pain. These were compared with the US2 clinical scoring system, which is used by the US Food and Drug Administration when assessing veterinary products for regulatory purposes. Other data assessed included odor, owner-perceived pain, abnormal tympanic membrane, treatment outcome, and otitis type.

The OTIS3 and OTIS5 scales had high correlation, but the OTIS3 scale was marginally superior and easier to use. The US2 scale was highly variable. Pain and pruritus did not correlate well with lesion scores. Neutrophil and microbial counts were variable and could not be used to generate cutoff points to differentiate healthy and affected ears or assess response to therapy. The authors recommended assessing the 0-3 OTIS3 for erythema, edema/swelling, erosions/ulcerations, and exudate for further validation. *Funded in part by Novartis Animal Health*

## Commentary

When comparing otitis externa treatment recommendations and evaluating efficacy of new medications, having a tool for objective clinical measurement is helpful. The OTIS validated in this paper evaluates erythema, edema/swelling, erosions/ulcers, and exudate of the external ear canal. Interestingly, the OTIS3 clinical assessments for the parameters of pain and pruritus level, odor, evaluation of the tympanic membrane, and cytology results did not necessarily differentiate a healthy ear from an affected ear or determine if an affected ear would have a successful clinical outcome. That does not mean that those parameters are not important; they are all significant when treating a patient and determining the underlying cause of infection. However, the 4 included criteria had acceptable reliability for evaluation of clinical outcome and will likely be used in future clinical research.—*Darcie Kunder, VMD*

## Source

Nuttal T, Bensignor E. A pilot study to develop an objective clinical score for canine otitis externa. *Vet Dermatol*. 2014;25(6):530-537, e91-e92.