

Vetpath is a specialist veterinary laboratory dedicated to providing our clients with the finest laboratory diagnostic service. A team of veterinary pathologists and medical scientists with extensive experience in veterinary diagnostic pathology forms the core of the Vetpath team.

VN News

MAY 2019

Multi-drug resistant (MDR) infections

MDR infections are becoming increasingly common in dogs and cats and are often associated with pyoderma, otitis externa, non-healing wounds, implant infections and urinary tract infections.

The most common MDR bacteria encountered in veterinary medicine are methicillin resistant *Staphylococcus pseudointermedius* (MRSP), *Pseudomonas aeruginosa* and *Enterococcus sp.* Methicillin resistant *Staphylococcus aureus* (MRSA) is primarily a human pathogen, but can be occasionally isolated from animals. *Enterococcus sp* often has low pathogenicity and therefore treatment may not be warranted

in asymptomatic patients (eg in urinary tract infections).

How do you reduce the risk of MDR infections?

Antibiotic stewardship aims to improve patient outcomes and reduce antibiotic resistance. Antibiotics should only be used when needed, and antibiotics critical to human and animal health should not be used unless essential, based on culture and susceptibility testing. The optimal dose should be used for an appropriate time, and response to treatment measured, with dosage and drug choice adjusted as needed. If an organism has intermediate sensitivity, the MIC can be determined, and if just resistant, you may be able to double or triple antibiotic dose. The mechanisms of action and method of administration (topical vs systemic) of different classes of antibiotics should be taken into account.

Remember that laboratory conditions don't always replicate in vivo conditions, and cytology

plus culture often provides more information.

Further information is available from the AVA:

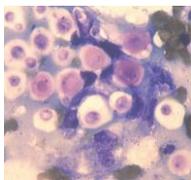
https://www.ava.com.au/sites/default/files/AVA_website/pdfs/AI DAP%20prescribing%20guidelines.pdf

Protocols to reduce infection risk should be in place in veterinary practices, including hand hygiene, use of personal protective equipment, cleanliness and disinfection of the environment, laundry and waste management. Minimizing contact of known MDR patients with other patients and certain areas of the practice is also recommended.



References available upon request.

Instagram!

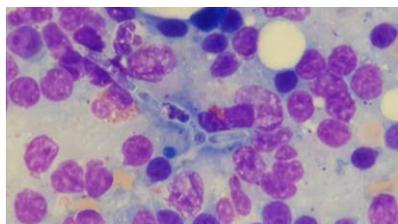


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Lymph node staging for oral melanoma and SCC

Malignant melanoma and squamous cell carcinomas (SCC) are the most common oral neoplasms in dogs.

Metastasis to the draining lymph nodes is common with these tumours and is associated with decreased survival time. A retrospective study of dogs with oral malignant melanoma and SCC was recently published in

JAVMA. In this examination, metastasis to the regional lymph nodes was evaluated, including the left and right mandibular lymph nodes (MLN) and medial retropharyngeal lymph nodes (MRLN).

The study population included 27 dogs with oral malignant melanoma and 21 dogs with oral SCC. It was found that metastases occurred to both sets of lymph nodes at similar rates (33% of cases), and metastasis occurred in only the MLN or MRLN in 16% of cases. In addition, metastasis was occasionally found in the lymph node contralateral to the tumour in some dogs.

The study highlights the importance of assessing patients with oral neoplasia for evidence of metastasis. Although the MLN are more easily accessible, bilateral assessment of the MRLN and MLN is recommended to avoid missing metastatic disease. The advantage of evaluating the MRLN is that there is usually a single node on each side. Dogs often have multiple MLN, not all of which are evaluated for metastasis.

Reference: JAVMA 2019 Apr 15; 254 (8): 938-943.



Can ear washes help in treating otitis externa?

Adjuvants including Tris EDTA, N-acetylcysteine and disodium EDTA were tested against various organisms associated with otitis externa, including *Pseudomonas aeruginosa*, *Staphylococcus pseudointermedius*, *Proteus*, B haemolytic streptococci and *Malassezia*, and were found to have some antimicrobial activity.

Pseudomonas aeruginosa and *Malassezia* were most susceptible to Tris-EDTA. In addition, Tris-EDTA may decrease the minimum inhibitory concentration (MIC) of antibiotics needed to treat *Pseudomonas* infection, though does not appear to have a beneficial effect on MIC when treating *S. pseudointermedius* infections.

References: Vet Derm 2019, 30: 133-e38 and 139-e40.



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