

Background

- Mast cell tumour (MCT) is the most common malignant skin tumour in dogs – reportedly representing ~20% of sampled cutaneous neoplasms¹ (Figures 1, 2)
- Survival estimates for large populations of dogs with MCT under primary veterinary care are not currently available
- Available referral survival estimates tend to be biased towards more complex cases, and are poorly generalisable to primary veterinary care populations

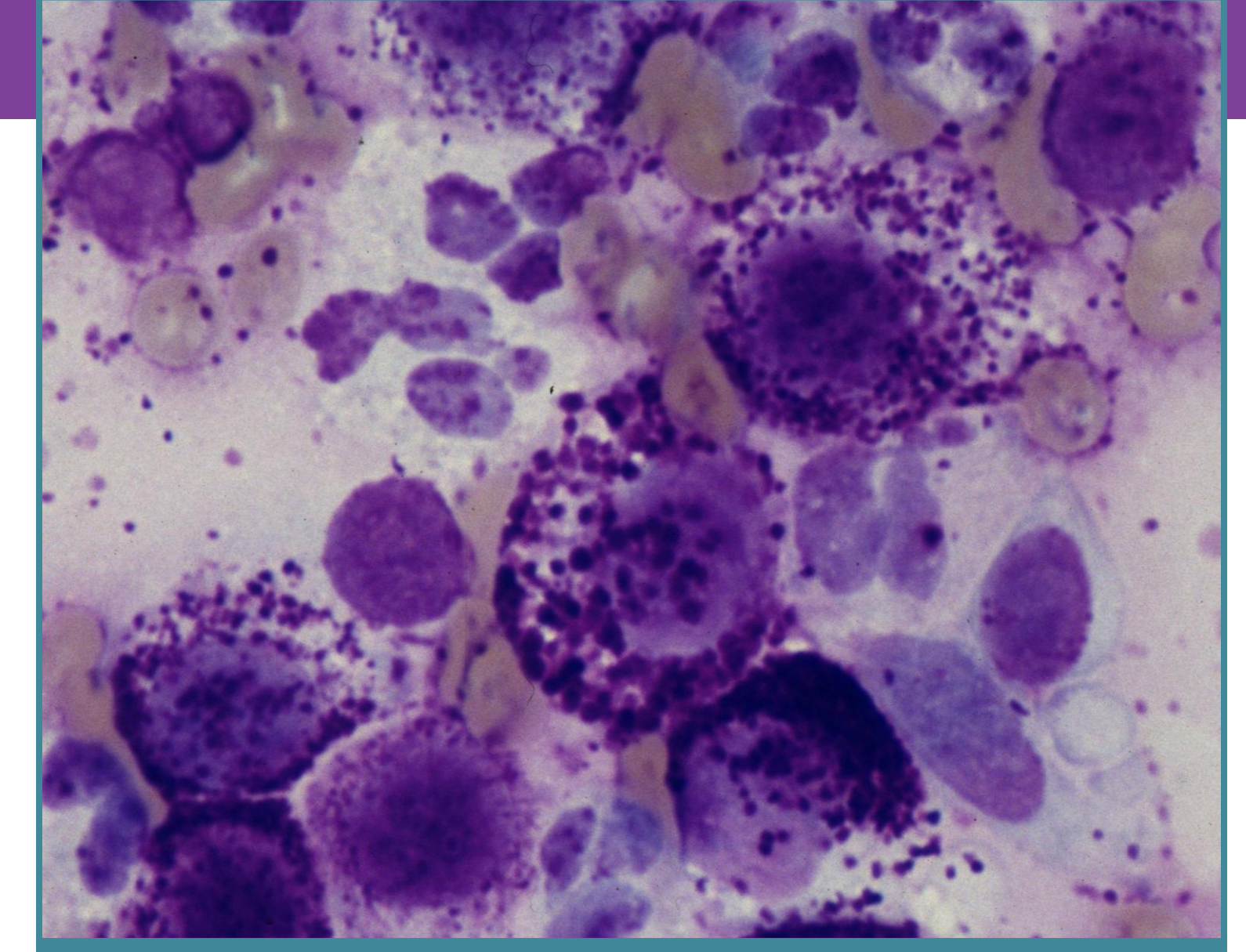


Figure 2: Cytology from a mast cell tumour © RVC Image Bank

Objectives

- Estimate survival of a cohort of dogs diagnosed with MCT presenting to UK primary veterinary care practices in 2016
- Identify prognostic factors associated with decreased survival time

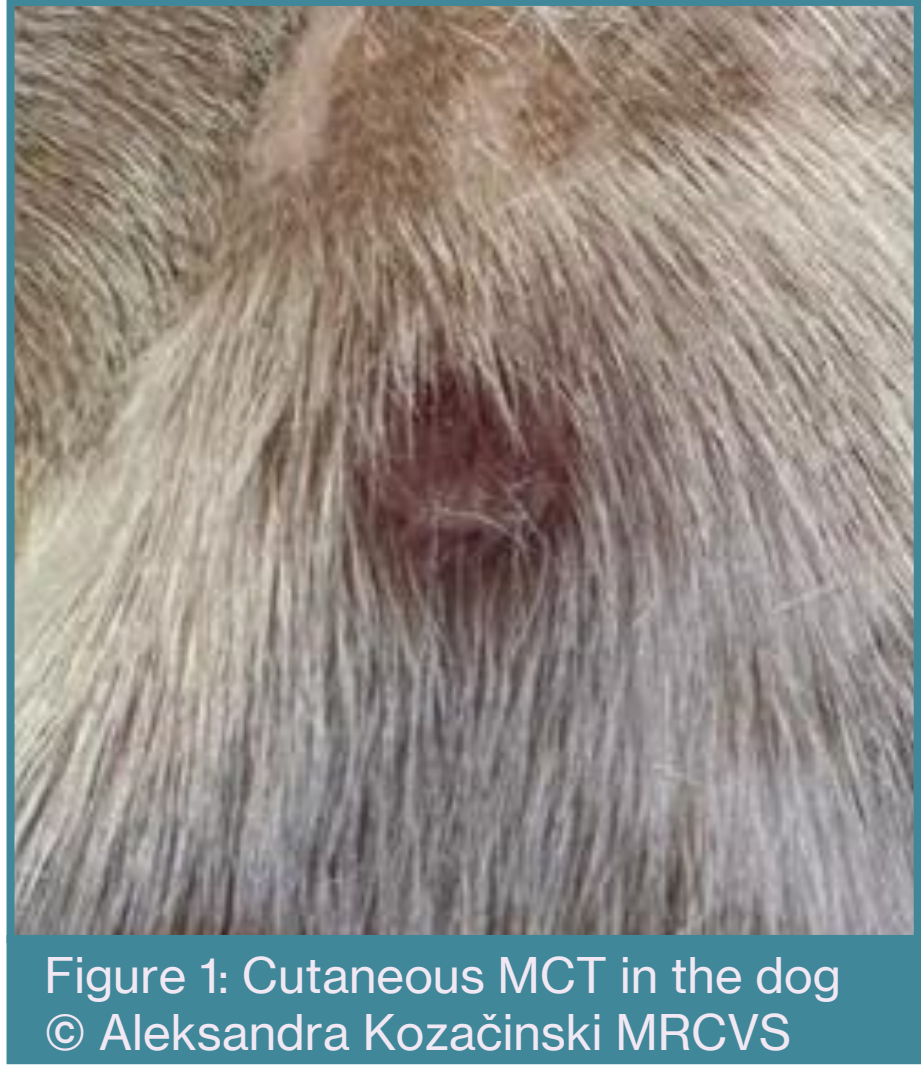


Figure 1: Cutaneous MCT in the dog © Aleksandra Kozacinski MRCVS

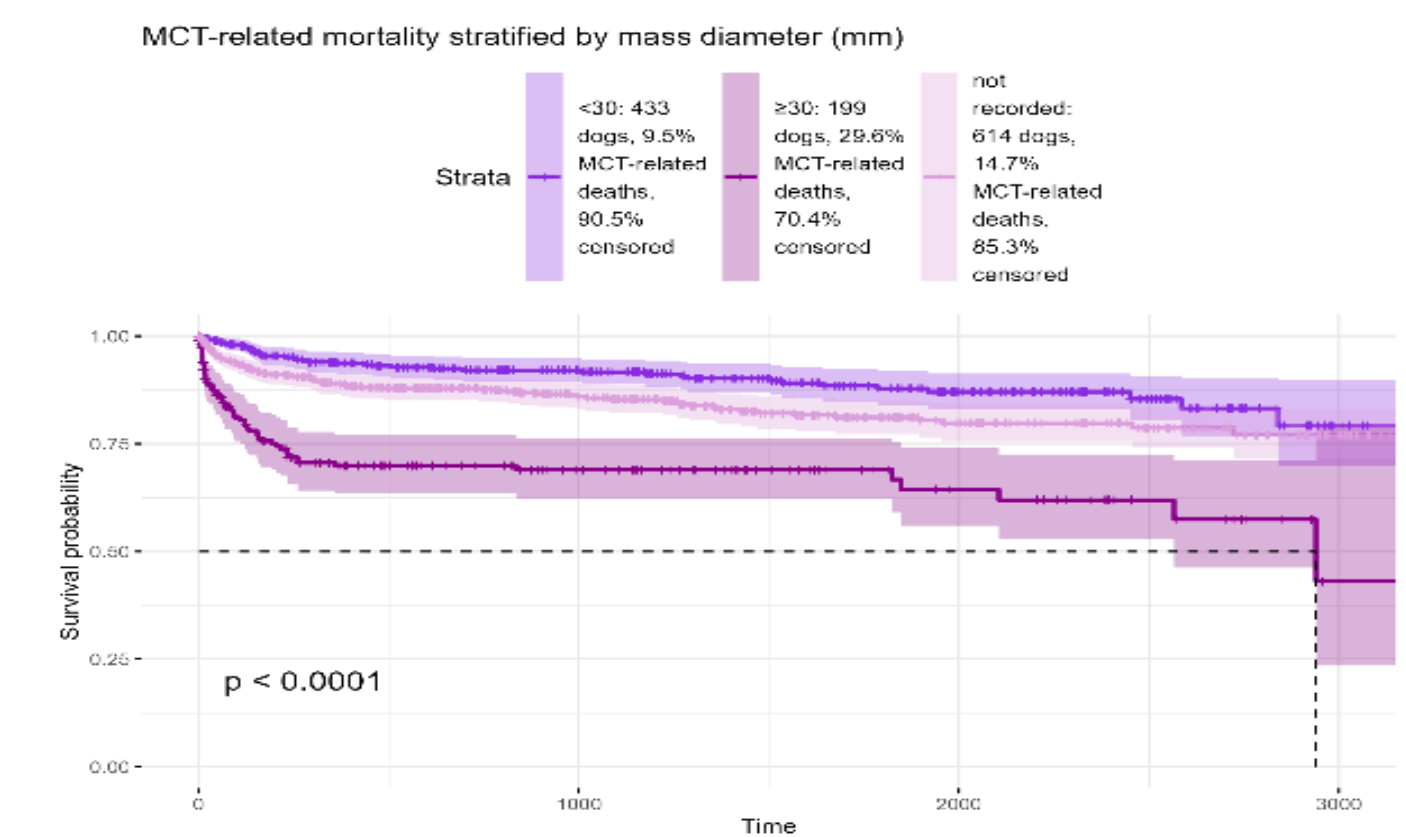
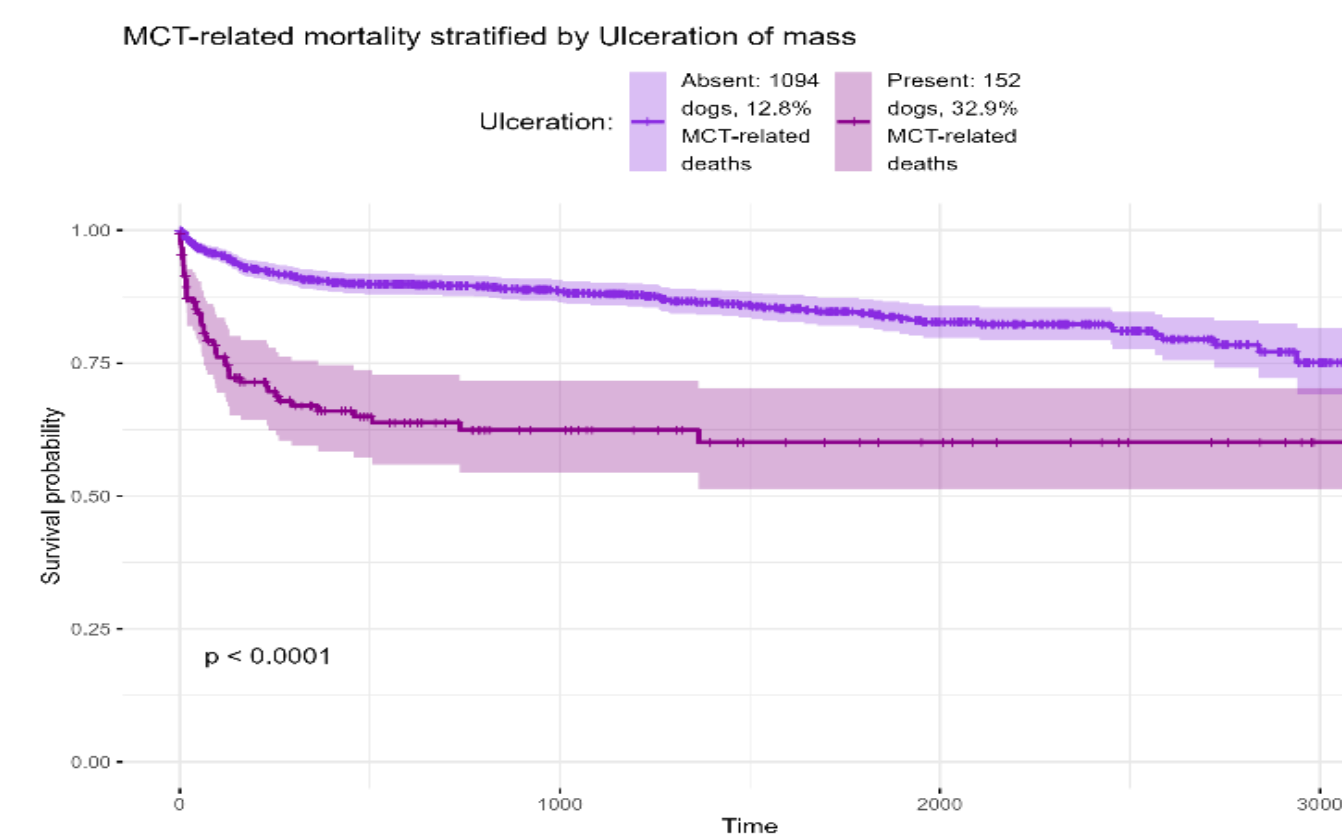
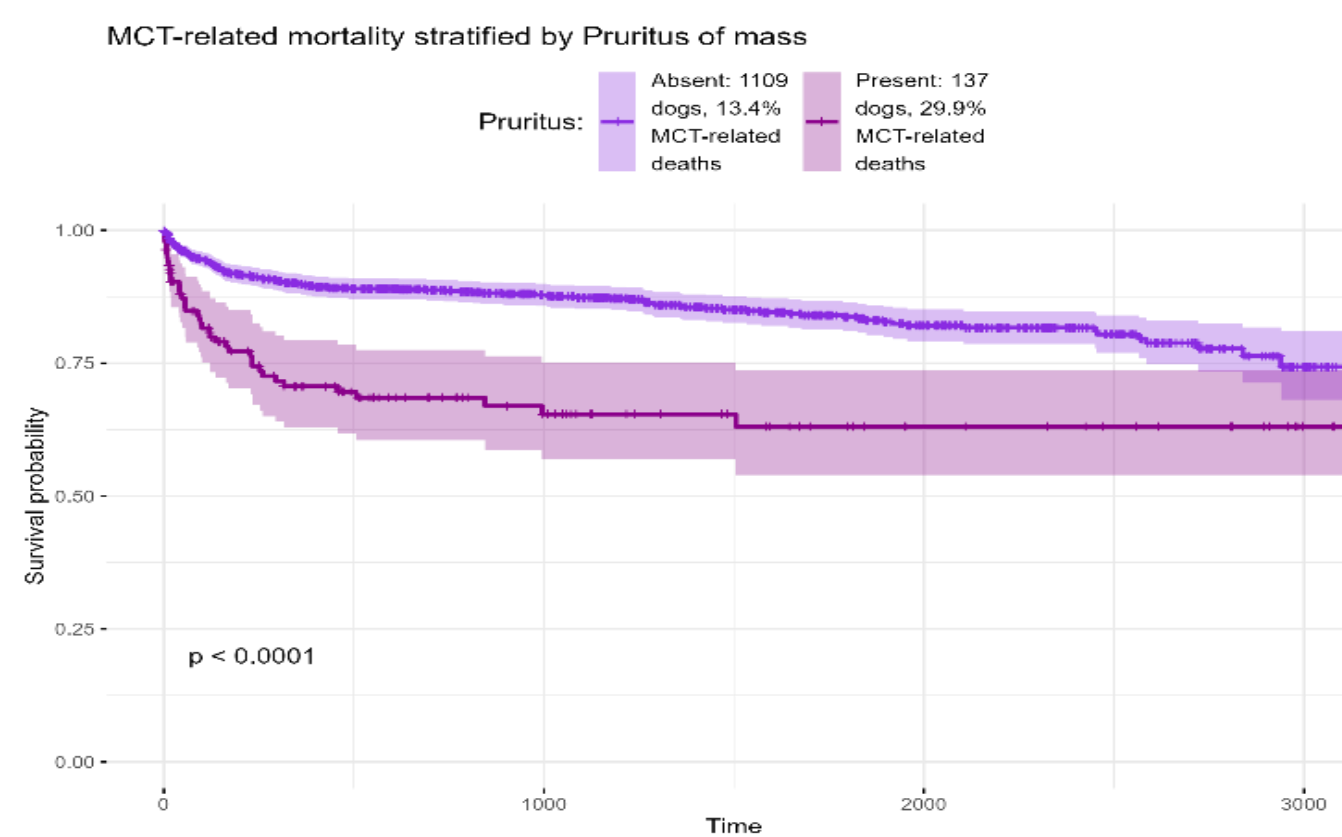
Study Design

- VetCompass collects de-identified electronic health records from enrolled UK primary veterinary care practices
- Search terms applied: 'mast' 'mct' 'Ki67' 'AgNOR' 'cKIT'
- Inclusion criteria: Dogs with cytological or histological diagnosis from 01/01/2016 to 31/12/2016
- Exclusion criteria: Clinical diagnosis only, diagnosis made outside of date range
- Final number of confirmed MCT cases: 1246
- Case management details and veterinarian-assigned cause of death manually extracted
- Mast cell tumour associated mortality explored via Kaplan-Meier curves and Cox proportional hazards model stratified by presenting features, histological classifications and clinical progression

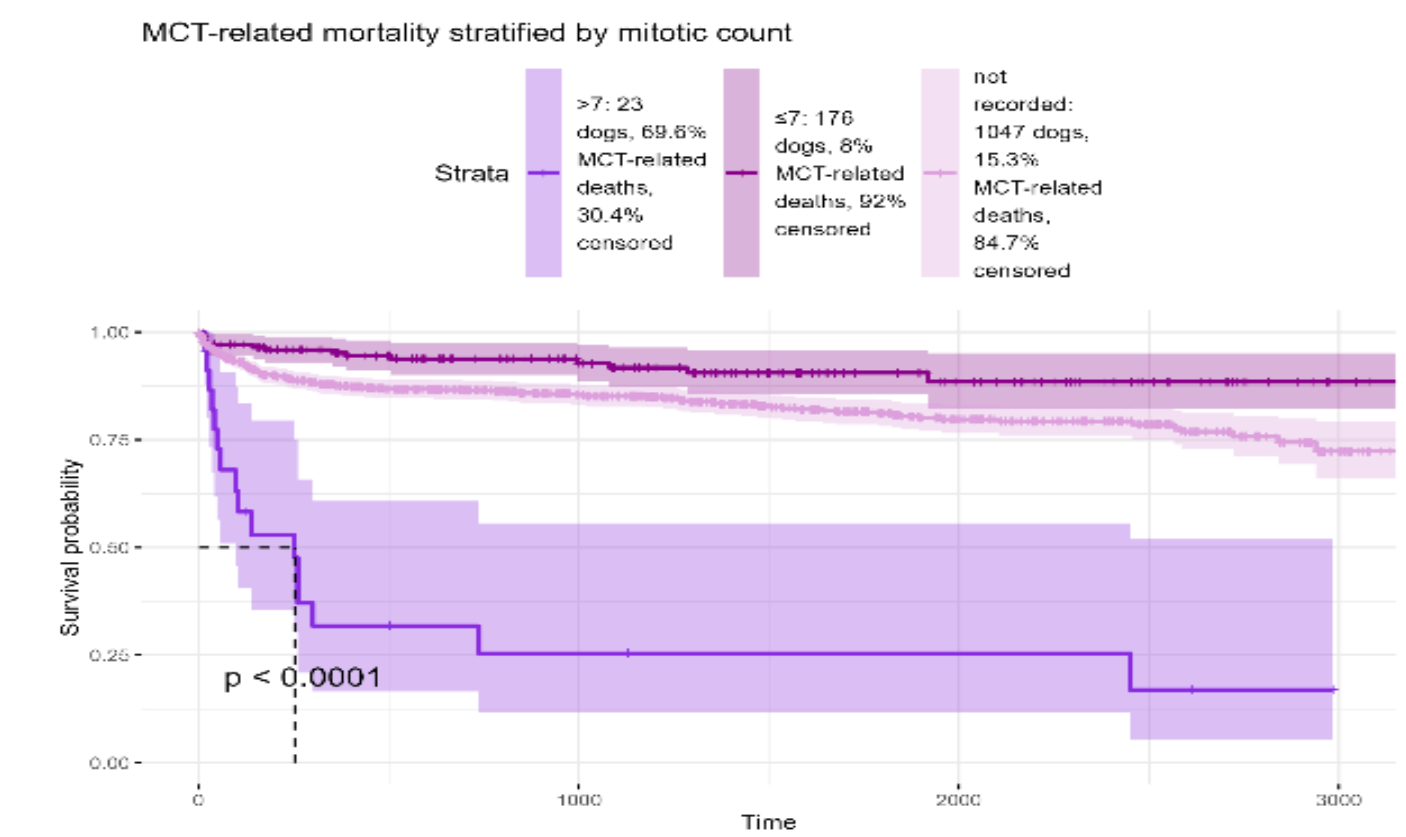
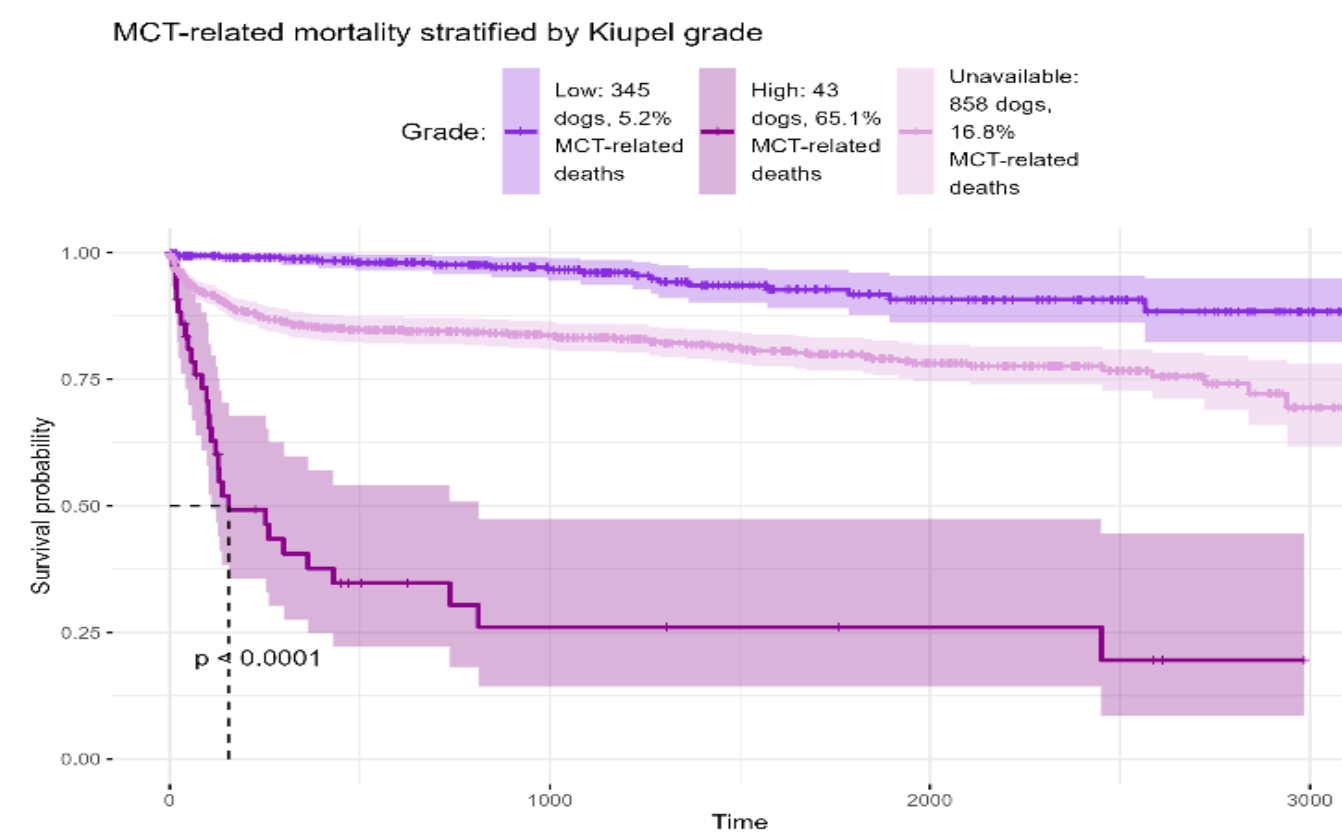
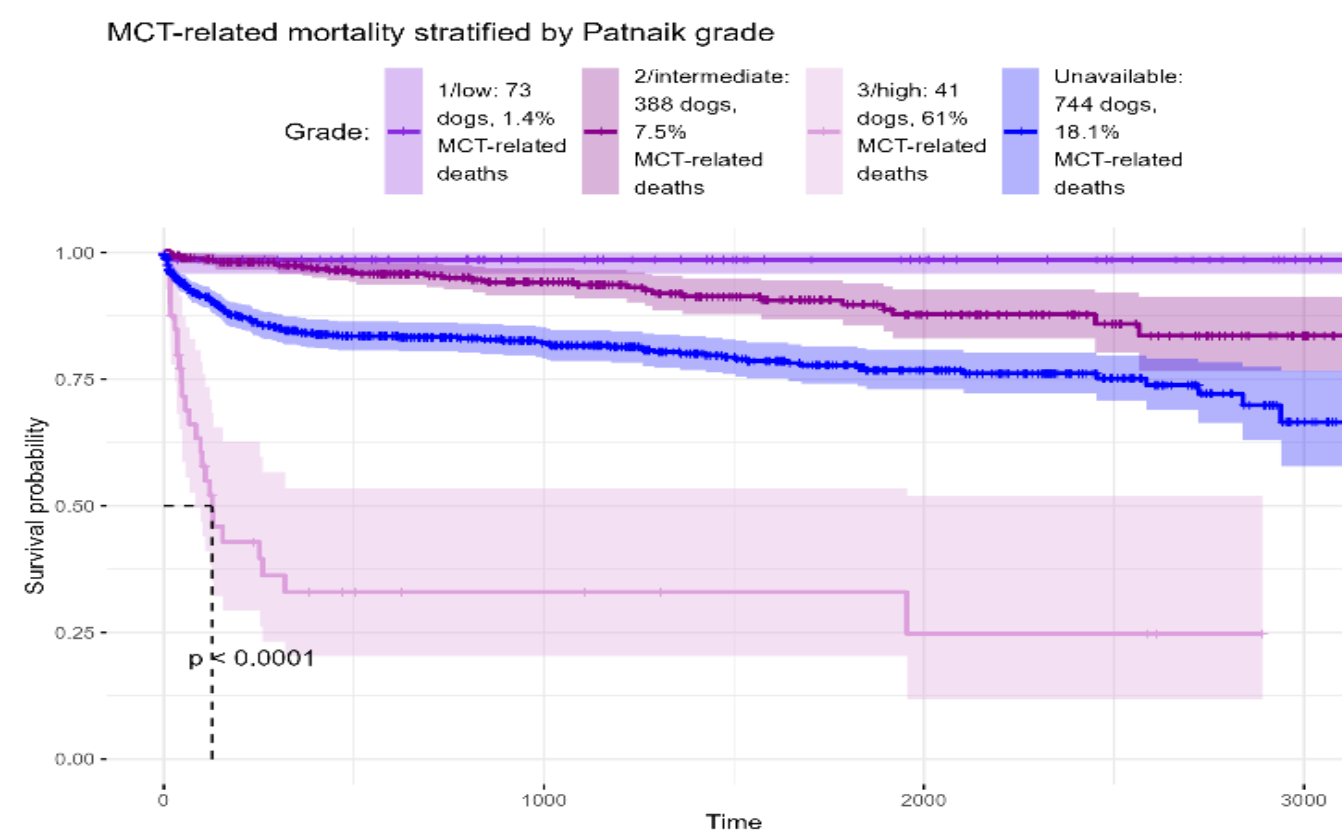


Results: Kaplan-Meier survival curves for dogs diagnosed with mast cell tumour in 2016 VetCompass

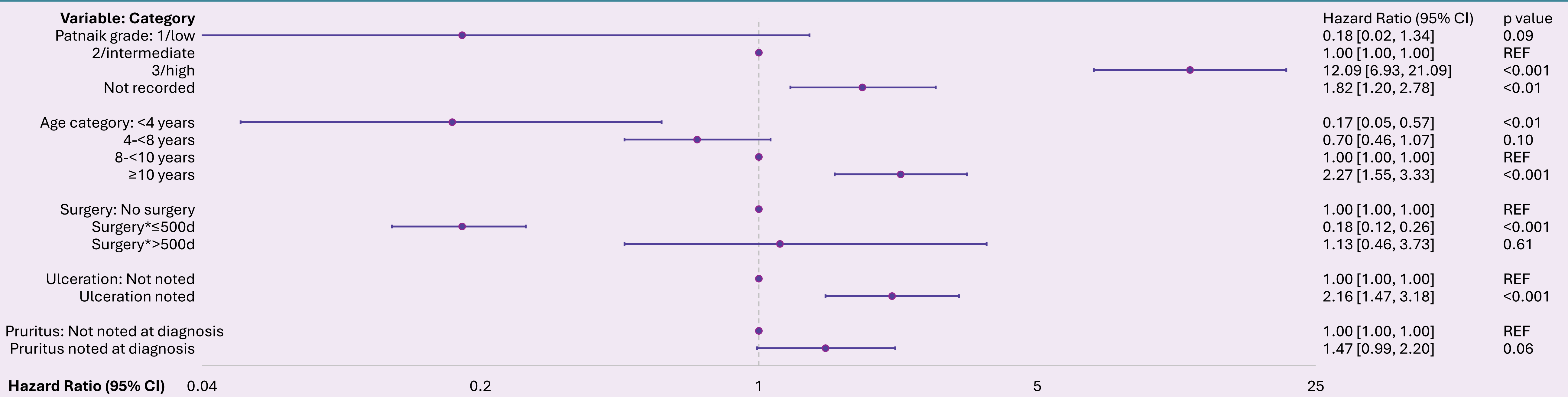
Presenting features:



Histologic features:



Results: Forest plot showing the multivariable Cox proportional hazards model identifying prognostic factors associated with time to death after mast cell tumour diagnosis



Conclusions

- Median survival time for all-cause mortality was 1460 days (range: 0-3234 days), median survival for MCT-related mortality was not reached.
- Only 190/1246 dogs (15.2%) suffered mast cell tumour related death
- Prolonged survival is possible for dogs diagnosed with MCT, acting as a reassurance to owners of pets with this diagnosis

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