## Concurrent B: Child Safety

07 **A CASE-CONTROL STUDY OF DOG BITE RISK FACTORS IN A DOMESTIC SETTING TO CHILDREN AGED 9 YEARS AND UNDER**

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**Background** In Victoria, children aged 0–9 years account for 83% of hospital admissions and 73% of hospital presentations for dog bite injury. More than two thirds of bites to children occur in a domestic setting.

**Aim/Objectives/Purpose** The aim of this study was to investigate risk factors for dog bite-related injury in a domestic setting to children aged 0–9 years.

**Methods** The study region comprised the catchment of seven emergency departments (EDs). Case data were obtained from a call back study of 51 child dog bite victims who presented to the study EDs. Controls were 102 children aged 9 years and under exposed to dogs in a domestic situation in the study region and who were not bitten. Data was collected via self-report in response to an interviewer-administered questionnaire. Data was analysed using logistic regression.

**Results/Outcomes** Unadjusted analysis identified several risk factors including overconfidence with dogs (OR 6.01, 95% CI 2.89 to 12.7), provocation by the child (OR 13.43, 95% CI 5.71 to 31.63), neuter status of the dog (OR 0.26, 95% CI 0.11 to 0.59) and lack of supervision (OR 10.32, 95% CI 3.80 to 28.01). Breed did not appear to be a factor with forty-three different pure bred and mixed-breed dogs involved in 51 bite incidents. Additional analysis controlled for the effects of confounding variables.

**Significance/Contribution to the Field** Identification of risk factors has the potential to reduce dog bite-related injury to children in a domestic setting by guiding future interventions, including education and policy. This is the first time a case-control study of this nature, using hospital data, has been conducted.