LETTER

**Dog bites, treatment and prevention in New Zealand**

James A Oxley, June Cheng

There currently appears to be a lack of recent research in New Zealand relating to the occurrence of dog bites, treatment received within the hospital and possible methods of prevention of such incidents.

According to the New Zealand Department of Internal Affairs,¹ the ACC (Accident Compensation Corporation), in the financial year between 2012 and 2013, recorded 12,406 new dog bite claims received, a rise of 13.4% from 2008/9 (10,748).

Langley² previously carried out a study recording dog bites in New Zealand between 1979–1988 and found that 182 incidents occurred which needed treatment within the Emergency Department. The findings from the latter research appear to be consistent with more recent research in other countries, which is that male children between the ages of 5 and 9 are the category most frequently bitten.³⁻⁵

Interestingly, Schalamon et al⁶ found that in 75% of dog bite cases the child interfered with a dog (e.g. playing, cuddling, pulling the tail, feeding). However, the two highest rates of bites involved playing with the dog (28%), whereas 26% of bites the circumstances were unknown. Parent and dog owner education is therefore highly important in the prevention of dog bites.

The treatment of dog bite wounds and their management has recently been noted as controversial and the time when treatment occurs and the treatment type (e.g. irrigation) have been noted to be important factors in the prevention of wound infection and resulting aesthetic appearance.⁷

A variety of additional factors have been noted to determine the rate of infection. These include the location of the wound, the type of wound, and whether antibiotics are used.⁷⁻⁸ (Chen et al, 2010; Paschos et al, 2014).

The use of antibiotics is controversial. Consideration of whether to routinely use antibiotics requires, not only a study of the above factors, but estimates of the proportion of dog bites that become infected, and the proportion of these for which antibiotics is an effective treatment. With a thorough analysis, a decision on whether to routinely use antibiotics can be argued on the basis of cost. (See Quinn et al⁹).

The authors note that further research needs to be conducted on dog bite victims, which may help indicate the incident rate and associated treatments within New Zealand. Various information could be collected per dog bite incident including: age, gender, relation to dog, location of bite (e.g. owner’s home), situation in which the bite occurred (e.g. playing, approaching dog whilst eating), dog behaviour before the bite, dog breed involved, severity of bite/wound, location of bite (e.g. face, hands), type/method/timing of treatment (surgery, dressings, antibiotics etc.), length of stay in hospital and post care advice and information.

Furthermore, whether the dog is a pet or working dog (e.g. police dog) is likely to be influential on wound type and management. For example, Meade¹⁰ found that individuals bitten by police dogs, in comparison to pet dogs, were seen to be bitten multiple times, have more hospitalisation episodes and were operated on more often. Dog bite records within hospitals should be compared to data from external sources such as the ACC to help identify an accurate rate of dog bites victims having to attend hospitals.

This information would not only provide an insight into the occurrence of bites, and the severity and treatment received within New Zealand hospitals, but would help to identify the need for dog bite prevention methods and identify the frequency and types of bites that result in hospital attendance. It
is important to state that parent and dog owner education is key in the prevention of dog bites and therefore any dog bite research should take this into account.

Overall, it is clear that dog bite treatments are controversial and multifactorial. An understanding of the causes, the treatments used, and the steps used in prevention and education would be gained from further research.

**Author information:** James A Oxley, Independent Researcher, Romford, Essex, United Kingdom; June Cheng, Orthopaedic Registrar, Canterbury DHB, Christchurch, New Zealand. James_oxley1@hotmail.com

**References**