DOG BITES IN CHILDREN

Learners Guide

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Topic: Dog Bites in Children

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Duration: 1-1.5 hours

Facilitator level: ST3 + in ED Setting

Learners level: Any health care professional involved in initial assessment

of children with injuries (emergency departments)

PRE-READING FOR LEARNERS

The list of link should be sent out in advance to allow time for people to access the resources at a convenient time:

- 1. NICE Guideline: Bites human and animal | Health topics A to Z | CKS | NICE
- 2. BMJ Article: Pet dog bites in children: management and prevention | BMJ

Paediatrics Open

- 3. Audio Discussion of Management (44mins): <u>Animal Bites in Children | Pediatric</u>
 Emergency Playbook
- 4.. The psychological impact: Review of psychological effects of dog bites in children PMC

OUTLINE

• Introduction: 10 minutes plus review of your hospitals local guidelines

• Cases: 3x 15 minutes case discussions

Simulation

• Quiz: 5 minutes

• Take Home Messages: 5 minutes

INTRODUCTION TO DOG BITES AND CURRENT SOCIAL SITUATION

In the UK 25% of households own a dog, with UK favourite breeds are Labrador, French bulldog and Cocker spaniel [1](note mixed breeds like cockapoos are not included) in Australia their favorite are the Cavapoo, Dachshund and Golden Retriever [2]. There has been an increasing trend of dog bites/attacks that has increased 3-fold over the last 20 years, with only 1/3 of dog bites thought to present to the ED, so the true number is unknown [4]. The majority of which are from family dogs or dogs known to their victim. There were 32 dog fatalities in the UK from 2019-2020 between 2019-2023 [3].

Children, especially those under 5 years are at increased risk of dog bites as they are unable to recognise dog behaviours (fear/anger), where their instinct is to cuddle contrasts with a dogs need for space when emotions are high resulting in biting and injury. In adults' injuries tend to focus on the legs and groin, whereas in children, due to the proportional size of the dog to the child, upwards of 85% of injuries are to the head, face and neck.[4,7]

The reasons for the increasing number of dangerous dog incidents are multifactorial including economic, due to increasing vet bills and cost of food, many dogs seized by South Yorkshire Police require veterinary attention from untreated conditions or being underfed. It is worth noting that neglect of a dog is often found to be linked to the neglect of any children in the household.

This is reflected in the NICE statement "A dog bite in the context of inadequate supervision should raise suspicion of wider neglect". During the pandemic the UK saw an increase in demand for dog ownership resulting in many "lockdown dogs" for which their world was quieter, calmer and more isolated during their key developmental stages (up to 16 weeks). These dogs were not exposed to experiences during this crucial time increasing how often dogs are feeling fear and anxiety – resulting in space avoidance, which children cannot interpret. Some dogs may display no learned behaviour, making them unpredictable.[4]

Banned Breeds in the UK:

In 2024 Bully XL's were added to the banned dog list, which already contained Japanese Tosa, Pit Bull Terrier, Dogo Argentino and Fila Braziliero. Though people can still currently own these breeds if they obtain an exception certificate stating they have been spayed/neutered, wear a muzzle and remain on lead in public in addition to being microchipped, but be mindful there is a number of unregistered dogs.[5]



Japanese Tosa [A]



Dogo Argentino [C]



Pit Bull Terrier [B]



Fila Braziliero [B]

XL Bully [D]

Another consequence of the ban has been a trend towards larger more powerful breeds like the Cane Korso. These dogs have a higher bite strength and have more potential to cause serious or fatal injuries or similar crossbreeds.[4]

Police Involvement/Powers in the UK:

All presentations to the ED involving dog bites should be considered if it needs reporting to the police on 101/online interface. For those that are, a police officer will undergo an in-person visit to assess the animals, their living conditions and make a safeguarding assessment. The aim is to educate and reduce the risk of recurrence, the owner may be given rules to follow such as training or muzzle wearing. In serious cases the dangerous dog act [6] can result in unlimited fines, banned from owning future dogs and even imprisonment with the dogs being seized and destroyed by the police.

The Police are involved in a whole range of preventative and proactive measures, to reduce the number of serious attack incidents such as media campaigns, recording and attending all incidents reported, education in schools and directing owners to further support such as: Blue Cross Responsible Dog Ownership Course.

There are a lot of useful resources out there that we can share with our patients and their families which give tips and information on how to keep children safe around dogs. Some examples of these are below:

https://www.bluecross.org.uk/advice/dog/keeping-your-toddler-safe-around-dogs

https://www.rspca.org.uk/adviceandwelfare/pets/dogs/company/children

https://www.safeguardingcambspeterborough.org.uk/wp-content/up-loads/2020/08/6-Dogs-and-Children-guide-to-staying-safe.pdf

CASE 1

Sammy is a 2 year-old-girl who was playing with her family dog when she was bitten on the arm. Sammy is usually fit and well, has no allergies and is fully immunised. On examination her arm show's a red mark but no skin has been broken, she has full range of movement of the elbow and wrist and indicates no pain.



What information is important to obtain during history?

Does this need to be reported to the police?

Does this child require any clinical management?

CASE 2

Muhammed is a 6 year-old-boy who was playing at the park with his family, when a stranger's dog came running towards him, jumped up and bit him on the face. The police have been informed, and you have the incident number. Muhammed has no past medical history, has no allergies and is fully immunised.

On examination you see the wound of his face which looks clean and not infected:









Image from Published Article [F]
Cavalcanti et al, Facial Dog Bite Injuries in Children: A Case Report, International
Journal of Surgery Case Reports, 2017, Volume 41; Pages 57-60

What examination and documentation is needed? How would you manage the wound itself? How else would you manage this clinically?

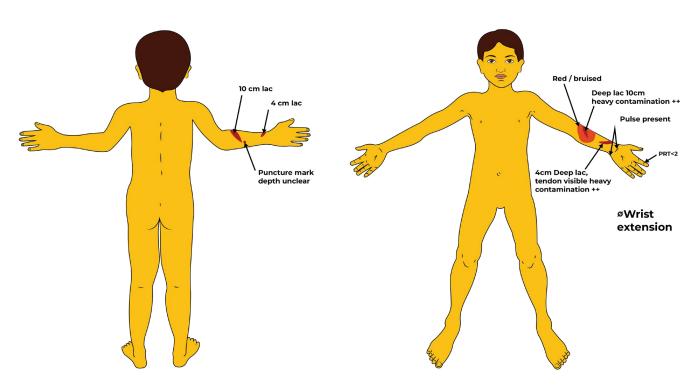
CASE 3

Kyran is an 11 y.o who was visiting the local farm, he had climbed over a fence when a large dog working on the farm bit his arm and wouldn't let go. Eventually the dog released with help of the farmer, the police are aware and have attended the Emergency Department due to the extent of Kyran's injuries.

History notes that Kyran has no medical history of note, has no allergies and is un-immunised. On examination there is a deep laceration across his distal forearm that is contaminated with mud, he is unable to move his wrist and tendons are visible, there is minimal evidence of bleeding and no evidence of vascular injury. His capillary refill distal to the wound is < 2 seconds and his hand is warm, he is reluctant at present to make any movements with his hands.

Young Male Child Posteroanterior

Young Male Child Anteroposterior



Annotated Diagram Image [G]

How would you manage this child? What imaging may you consider?

DISCUSSION QUESTIONS

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Do all dog bites need to be reported to the police?

Question 2.

Which dog bites require antibiotic treatment?

Question 3.

Which dog bites require tetanus vaccinations?

Question 4.

How can dog bites be prevented?

Take home tips (learning points)

- Always consider potential wider safeguarding around all dog bites
- 4 Does your ED have a Dog Bite Proforma?
- **B**etter left alone, the majority of bites should be left to heal with no formal closure
- 5 Education of the child and family on how to prevent dog bites in the future
- Check the child's immunisation status

REFERENCES

- 1.Most popular dog breeds UK according to KC registration | Horse & Hound
- 2. 23 Most Popular Dog Breeds in Australia in 2025 Dogster
- 3.Deaths by dog attack in the UK 2019 to 2023 including all context of death Office for National Statistics
- 4.Sheffield Education Teaching Speech Paul Jameson from South Yorkshire Police Dangerous Dog Team (November 2024)
- 5. Controlling your dog in public: Banned dogs GOV.UK
- 6. Controlling your dog in public: Overview GOV.UK
- 7. Pet dog bites in children: management and prevention | BMJ Paediatrics Open
- 8.Bites human and animal | Health topics A to Z | CKS | NICE
- 9.The Green Book on immunisation chapter 30 tetanus
- 10.6-Dogs-and-Children-guide-to-staying-safe.pdf
- 11.Keeping your toddler safe around dogs | Blue Cross
- 12. Co-amoxiclav | Prescribing information | Bites human and animal | CKS | NICE

PICTURE REFERENCES

A. Image of Japanese Tosa: A short history of the 'dangerous dog' and why certain breeds are banned - BBC News

B.Image of Pit Bull and Fila Brasileiro: 4 Banned Dog Breeds in the UK (With Photos)

C.Image of Dogo Argentino: Why are Dogo Argentinos banned in the UK? | The Sun

D. Image of XL Bully: What is the XL bully ban and how dangerous are the dogs? -

E.Image of Case 1: CGI Created Image: https://chatgpt.com/s/m_688e-4504246c819184228e005e5d78bd

F.Image of Case 2: Cavalcanti et al, Facial Dog Bite Injuries in Children: A Case Report, International Journal of Surgery Case Reports, 2017, Volume 41; Pages 57-60 Facial dog bite injuries in children: A case report - ScienceDirect

G.Image of Case 3: Hand drawn diagram of patients injuries. Paediatric Body Map from Whittington NHS Trust:

https://www.whittington.nhs.uk/default.asp?c=38594&print=1

H.Dog Bite Simulation, Written by colleague Frankie Bevis (West Midlands ED Trainee)

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