



## AVDS Dental Guidelines - Canine & Feline

### Introduction

Oral care is necessary to provide optimal health and quality of life. Diseases of the oral cavity, if left untreated can be painful and may contribute to other local or systemic diseases.

This paper includes guidelines for materials and equipment, oral evaluation and cleaning, client communication and pet home care.

*This document is believed to be current at the time of writing with regard to acceptable practice in Australia.*

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The purpose of this document is to provide guidelines to veterinarians to perform a 'dental' procedure in dogs and cats. By a 'dental', we are referring to the necessary steps to perform an initial oral assessment, an assessment under general anaesthesia of any oral pathology present, the recording of findings and the development of a treatment plan, cleaning of the teeth both above and below the gum line, formulation of guidelines for home care and follow-up management.

This document does not attempt to include more advanced treatments, which may include oral surgery, periodontal therapy, endodontics, orthodontics or other dental/oral disciplines.

The requirement for follow-up treatments will be derived from the result of the oral examination via the recognition of the presence of oral pathology, previous treatments and the degree by which the clinician anticipates improvement from this 'dental' procedure. Veterinarians are encouraged to be able to recognise whether their dental equipment and skill level allows them to fully treat the oral pathology present or whether referral to an appropriately trained veterinarian is required.

## **Definitions**

- Dentistry – the evaluation, diagnosis, prevention or treatment of abnormalities and pathology of the oral cavity, maxillofacial area and/or associated structures; non-surgical, surgical or related procedures may be included.
- Dental record – a completed dental chart filled in indicating periodontal indices, any oral pathology present and procedures planned and/or performed at the time of examination.
- Dental prophylaxis (is a term synonymous with the colloquial term ‘dental’ utilized in this document) – a procedure including oral assessment under general anaesthesia, diagnosis and formulation of a treatment plan, removal of plaque and calculus above and below the gum line, an oral hygiene plan and subsequent followup. This procedure is limited to patients without periodontitis.
- Gingivitis – the reversible inflammation of the gingiva without the loss of the supporting structures that may or may not be visible to the eye.
- Periodontitis – the irreversible destructive process involving the loss of the tooth’s supporting structures (the periodontium) which includes the gingiva, periodontal ligament, cementum and the alveolar bone.
- Periodontal pocket – a pathological space between supporting structures and the tooth, extending apically from the normal site of the gingival epithelial attachment.
- Periodontal therapy – the treatment of chronic gingivitis and periodontitis. Depending on the degree of periodontitis, this may require multiple examinations, treatments and disciplines. Therapy may include periodontal surgery.
- Periodontal surgery – the surgical treatment of periodontal disease.
- Oral surgery – the surgical invasion and manipulation of hard and soft tissues to improve/restore oral health, function and comfort.

## **Equipment, instruments and maintenance.**

### **1. Facility – ‘dental surgical suite’**

As most dental procedures are considered ‘dirty’ and involve general anaesthesia, water and aerosol formation, it is highly recommended that a dedicated space be utilized apart from the sterile surgical theatre.

For optimal safety to operators and patients, current Occupational Health and Safety requirements should be complied with including anaesthetic gas scavenging, lighting, operator, assistant and patient protection.

Highly recommended: operator and assistant protection includes the wearing of masks, gloves, eye shields and gowns. It is also recommended that ear protection and hair-nets be utilized.

Patient protection involves the provision of an impervious surface with adequate drainage to conduct the procedure on; airway protection involves the use of an adequately inflated cuffed endotracheal tube and pharyngeal packs; and appropriate monitoring including heart rate, blood pressure and temperature. The patient should be adequately protected from hypothermia and hypovolaemia during the entire period of the procedure which may be of variable duration.

## **2. Dental base and power equipment.**

To competently, adequately and rapidly clean plaque and calculus from the tooth's surfaces it is recommended that some form of power equipment be used. A large choice of such equipment is available, however in essence it consists of a) sonic and/or ultrasonic scalers (to remove plaque, calculus and debris from the teeth surfaces)

b) a slow speed handpiece suitable to accept a prophy-cup used with a polishing paste to remove stain and more plaque.

## **3. Hand instruments**

The minimum set of hand instruments required for dental prophylaxis includes: a dental explorer, a periodontal probe, a variety of scalers and curettes, a dental mirror and a sharpening stone.

## **4. Maintenance of power and hand equipment**

Power equipment should be maintained in good working order on a regular basis according to the manufacturer's instructions, but includes cleaning and oiling of handpieces after each use and maintenance of the pressure vessel.

Hand instruments should be kept in good order including the sharpening of curettes and scalers.

## **Oral examination, diagnosis and treatment planning**

A full patient history is part of any oral examination.

The preliminary physical examination of all body systems is conducted in the consulting room. The extent of this initial examination will depend on the temperament of the animal with a subsequent full oral examination performed under general anaesthesia.

Considerations to be included here will be the temperament of the animal and the commitment of the owner as these will influence the 'home-care' planning.

Complete oral examination can only be performed with the animal anaesthetised; excessive calculus deposits may need to be removed to aid in the more accurate measuring of pocket depths with a periodontal probe.

A rigorous oral examination should be performed and will include periodontal probing; the use of special tests including intraoral radiographs is highly recommended.

All findings should be recorded on a dental chart which then becomes part of the animal's medical record.

The indices that are highly recommended to be recorded on the dental chart are fully detailed in the procedures section of this document. Based on the findings of these examinations, diagnoses will be made. Consideration of the diagnoses, patient co-operation and owner commitment will permit the development of an appropriate treatment plan.

### **Operator and assistant protocols**

#### **1. Veterinarian**

- To perform an initial oral examination of the pet and once under general anaesthesia to complete a thorough oral examination
- To formulate a treatment plan
- To oversee the dental charting and recording and give written or verbal instructions to the veterinary assistant re the implementation of the treatment plan
- Be aware of the veterinary assistant's qualifications and capabilities to implement the treatment plan.
- To formulate a homecare plan
- To liaise with the client (or via the veterinary assistant) re the implementation of any homecare plan
- Recommend to the client that the pet be referred to an appropriately trained veterinarian when the practitioner does not have the skills, knowledge, equipment or facilities to perform a given procedure or treatment.

#### **2. Qualified Veterinary nurse**

- Certificate IV qualified veterinary nurses can prepare for these procedures
- Chart and record the findings and clean teeth under the guidance of the veterinarian
- If appropriately licensed, the veterinary nurse can take and process radiographs.
- The veterinary nurse can discuss results of the homecare plan and make followup phone calls with clients if instructed to do so by the veterinarian.

#### **3. Veterinary assistants, Vet nurse students, enrolled students etc.**

- Can set up for the procedure under the guidance of the veterinarian or a certified veterinary nurse.
- Chart and record the findings and clean teeth under the guidance of the veterinarian

### **Procedures**

The word 'prophy', prophylaxis, and 'dental' are often misused in veterinary medicine.

A dental prophy is performed on a patient with an essentially healthy mouth or with mild gingivitis.

Patients with existing periodontitis (attachment loss) undergo periodontal therapy not a prophy.

### **Steps for dental cleaning:**

1. Under general anaesthesia, the oral cavity is examined and an assessment of the indices for calculus, gingivitis and plaque (graded 0 to 3) is recorded followed by periodontal probing, charting and formulation of a treatment plan. These findings are recorded on a dental chart. If oral pathology is encountered, it is recommended that intra-oral radiographs be taken to further assess the pathology.
2. Scaling is performed using hand and/or powered equipment. The dental chart may be adjusted for any other findings at this time.
3. The teeth are polished using a slow speed handpiece with a polishing cup and adequate polishing paste.
4. Debris can be cleared away using a triplex (water/air syringe) or by saline irrigation. Air drying at this time will highlight any remaining calculus and the use of a plaque disclosing solution to detect remaining plaque is recommended. This material should be removed.
5. If periodontitis is present as determined by the above examination, periodontal therapy may be performed with the informed consent of the owner.
6. Perioperative adjunctive therapy (antibiotics, local anaesthesia, analgesia etc) should be administered where indicated.

### **Perioperative care**

- Maintain an open and patent airway via intubation until the animal is swallowing and is in sternal recumbency.
- Maintain body temperature and continue intravenous fluid support.
- Maintain and record vital signs until the patient is awake.
- Effective pain management as required.

### **Post-operative communication**

Client communication is fundamental to ongoing oral care. At the time of discharge, the operative procedures and existing or potential complications (e.g. bleeding, coughing, dehiscence, infection, neurological signs, halitosis, vomiting diarrhoea, anorexia and/or signs of pain) should be discussed.

Discuss immediate postoperative homecare including medications and their side effects. Provide antibiotics and medication for inflammation and pain only as indicated. Discuss any change in diet that might be necessary, such as a change to soft or premoistened food or to a prescription diet. Provide individualized oral and written instructions at the time of discharge.

Establish an appointment for a follow-up examination and further discussion.

### **Homecare / preventive plan**

Effective homecare is vital for the prevention and control of oral disease.

Assessment of the amount of disease present, the owner's compliance and the co-operation of the pet to homecare are imperative in the formulation of a homecare plan.

The homecare plan will include the frequency, duration and method of rinsing, brushing, use of sealants, special foods and dental chews. This plan may need to be reassessed at follow-up evaluation visits. The Veterinary Oral Health Council (VOHC) was formed to certify the efficiency of oral products and the veterinary team is encouraged to recommend VOHC-certified products where appropriate.

*This document has been developed and produced by the committee of the Australian Veterinary Dental Society, May 2007.*

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