

Veterinary dentistry: good for patients and good for business

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I am not sure why dentistry is often the focus for those who use “running a business” as a derogatory term for veterinary surgeons. Is it because dentistry has been ignored for so many years as a problem our patients simply have to put up with – whereas orthopaedics, cardiology and so on are regarded as “important”?

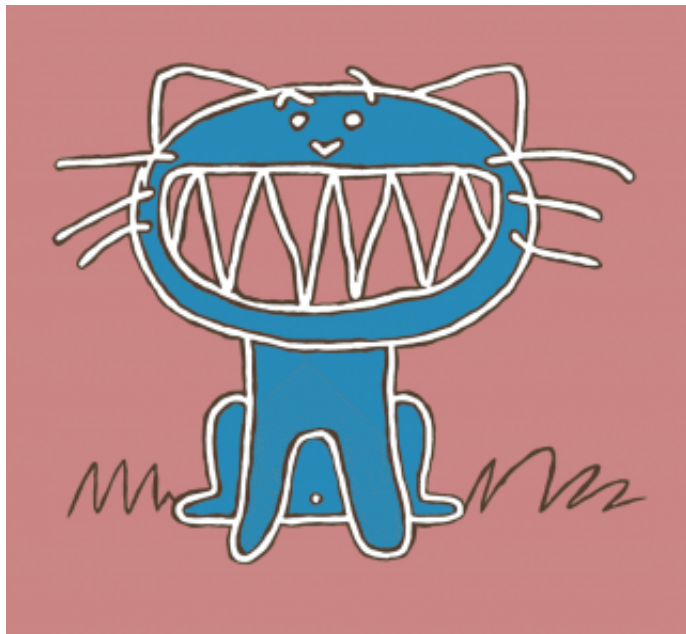


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There is not a dichotomy of the needs of our patients and the needs of our business. Doing what is right for our patients can also be doing right for our businesses. Indeed, both parts of this are essential. While failing to meet the patient’s needs may go undetected for a while – it will be discovered to the detriment of the business (as well as to the obvious detriment of the patient). Equally, how ever excellent our care for patients, if we have no regard to the needs of the business it will ultimately fail.



The market

Substantial evidence (for example, the surveys conducted by Pet Smile Month over several years)

show 80% of our pet population of cats and dogs over the age of three require dental treatment.

This actually represents something of a condemnation of the veterinary profession. How can we be satisfied such high figures of disease prevalence are tolerated, or even accepted as normal? Should we, as a profession, not have done more in the past and be willing to do more in the future to combat this situation?

The need for treatment

		
1		
Active pets (those seen within past 12 months)	974	550
Active pets more than 3 years of age	706	440
80% of active pets more than 3 years of age (ie those in need of dental treatment)	565	352
Percentage of total active pets in need of dental treatment	58	64
2		
Expected dental treatments per week	12.2	7.6
Expected dental treatments per day in a five-day working week	2.4	1.5
3		
Completed dental treatments per week	6.1	3.8
Completed dental treatments per day in a five-day working week	1.22	0.76

All figures are per FTE veterinary surgeon

Dental disease obviously varies in severity. However, even the earliest stages of gingivitis, plaque and calculus build-up represents a reservoir of oral infection. As the disease progresses through to periodontal disease, the bacterial burden increases. Small movements of the teeth, such as those occurring during normal mastication, can result in a transient shower of bacteria entering the bloodstream. In addition, exertional respiration could easily result in a bacteria-rich aerosol being carried to the lungs. Every swallow will also carry a salivary soup rich in oral pathogens.

While one would assume gastric acids would mitigate these problems, we have an increasing body of cases where chronic diarrhoea, vomiting and GI disturbances appear to be resolved by effective dental treatment.

The haematogenous spread of infection appears to result in the bulk of the systemic effects of dental disease. These vary from the obvious potential cardiovascular, renal and hepatic effects, to the more subtle ones of mast cell activation and the possible link to the two-hit model of rheumatoid arthritis.

I would imagine almost every small animal vet has experience of clients returning for a post-dental check-up with comments such as “he’s like a puppy again”, or “we just thought she was getting old, now we know it was the problem with the teeth”.

We have even started recording a few of these – if clients don’t believe our recommendations, they will usually believe those of other clients (a selection of these recordings is available at www.vetdentist.co.uk).



The financials



Putting on our “business hats”, what does this mean in terms of the market? Pet populations will vary in different parts of the country, but most practice management systems should be able to quickly analyse your figures. An average of supplied figures is shown at **(1)**.

With these figures we instantly have an idea of how many dental treatments each vet should be doing if we are to address the problem.

Assuming each vet works 46.5 weeks per year (four weeks leave and eight statutory bank holidays) then the expected numbers of dental treatments would be as shown at **(2)**.

However, before we go further into the business analysis, it is worth introducing a note of caution (and one I will return to later). Let us assume our conversion rate from presenting with a dental problem to booking a dental treatment is only 50%. In other words, only half of the clients we see are convinced of the need for treatment of their pets, despite our knowledge of the severe local and systemic effects of the problem **(3)**.

		
4		
General anaesthesia	£35	£25
General anaesthesia monitoring	£10	£10
Preoperative blood test	£30	£30
Grade 1 dental treatment	£40	£30

		
5		
Dental treatment income per case assuming a 50 per cent take-up on blood test	£100	£80

		
6		
Base dental income per week	£914	
= Base dental income per annum	£42,501	

For FT2 veterinary surgeon

		
7		
Dental x-ray set-up	£20	–
TR screen set-up (initial 2 or 3 views)	–	£15
Additional views	–	£10
Single dental view	–	£12
Screen (6 views)	£50	–
Multi-plate discount (10 views)	£80	–

A detailed discussion of fees is really the remit of a separate article, however, we will take some low-end fees from a first opinion practice **(4)**.

Assume our vets are again only able to achieve 50% compliance on uptake of the preoperative blood tests **(5)**.

This generates a starting point for dentistry income as shown at **(6)**.

The case for dental x-rays

The essential nature of dental radiography for the provision of even the most basic of dental health care is becoming widely accepted.

In 1998, Frank Verstraete's seminal papers showed radiography revealed clinically significant pathology in 27.8% of dogs and 41.7% of cats (where no abnormal findings were made on oral examination)^{1,2}. Furthermore, where oral examination did indicate a problem, additional pathology was revealed by radiography in 50% of dogs and 53.9% of cats.

In other words, if we are not taking radiographs in cases we think are normal, we will miss important pathology in more than a quarter of dog – and nearly half of cat – dental examinations. Even where we can see obvious dental pathology, we will miss further important pathology in half of our dental cases. Ethically, can we – as veterinary professionals – ignore the clinical needs of our patients? Yet, as veterinary businesses, we also need to be able to justify the investment.

If we just consider one specific problem, namely TRs (tooth resorptive lesions, formally known as FORLs or neck lesions) in cats. TRs are extremely common in cats, so we can assume 50% are affected. TRs are painful and debilitating, the lesions are frequently subgingival and will not be diagnosed without radiography. Celia Gorrel showed overall TR status can be confidently diagnosed in nine out of 10 cats by assessing TR status in just two teeth (307 and 407) using two views³.

This “TR screen” can be quickly performed with every dental or other procedure requiring general anaesthesia **(7)**.

8	Base feline dental radiography income per annum	£3,802
	Base canine dental radiography income per annum	£4,802
	= Basic dental radiography income per annum	£8,604

Figures are per FTE veterinary surgeon

Where we have trialled this model, 80% of cat owners accept the TR screen as part of the dental treatment process. Given the prevalence of TRs, 50% of those cases then require further radiographs to assess other teeth, or as part of the treatment for identified problems. For the purposes of the financial model, we have only allowed for two extra films. We also used the model to assume 50% of the dog dentals have only two radiographs and the set-up fee was waived in 50% of those cases to encourage the use of radiography **(8)**.

Return on investment

Given the potential revenue of more than £51,000 per FTE from basic dental care **(6)+(8)**, my contention is there are few areas of your practice that would provide such financial return as investing in veterinary dentistry, both in equipment and, most importantly, effective training.

Barriers

The biggest single barrier to instituting effective dental health care for our patients is not the owner – it’s the vet. Looking through patients’ records, comments at vaccination examinations such as “dental disease – monitor”, “review later” or “needs treatment soon” jump off the page time and again. Why are we so disinterested in providing this essential health care for our patients?

The reasons are numerous, but poor training (there is still only one veterinary dentist employed by all of the UK’s universities), failure to invest in decent equipment and dentistry being regarded as a dirty procedure only carried out in a rush at the end of the “sexy” operative time when glucose levels are low, are commonly cited.

Solutions



Severe periodontal disease.

The solution lies within our profession. We need to change our mind-set to regard dentistry as being an important health issue. Even in preparing these figures, I made the assumption only 50% of dogs and cats presenting with a dental problem are actually treated. So, in 50% of cases, the vet fails to examine, make a diagnosis or encourage owners to comply with treatment.

The single most important issue is effective training and focusing your team on the health benefits of effective dental care.

I don't believe his figures

It is essential to recognise the conservative approach taken in compiling these figures:

- No allowance has been made for any patient under the age of three years. The statistics we used were 80% of pets more than three years old required immediate dental treatment, not that 0% of pets under three years had dental disease. Never mind all the periodontal disease cases we see in the younger age group, consider all the retained temporary teeth you encounter.
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Early stages of calculus.

No allowance has been made for anything other than “Grade 1” dental treatments. Would you charge for treating for the two cases illustrated right in the same way?

- No allowance has been made for any extractions or any consequent additional charges.
- No allowance has been made for any drug or material costs. Routinely, charges are made for the premedications, the induction agents, swabs, scalpels, throat packs, sterile packs, gloves, suture materials, anti-inflammatory injections, postoperative pain relief and, where appropriate, antibiotics and so on. This additional income can easily represent 50% of the professional fees charged. While there is a cost of purchase, practices will make an additional margin on these sales.
- Perhaps, most important of all, a compliance level of only 50% has been assumed.
- In addition, no consideration has been given to the ancillary sales of prescription diets, toothbrushes and other oral health care products. These additional ethical revenues are not inconsiderable.

Analyse your own figures and patient numbers, then think what investing in equipment and effective training could do for the health of your patients – and your business.

References

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