

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/332702490>

WSAVA Animal Welfare Guidelines

Article in *Journal of Small Animal Practice* · May 2019

DOI: 10.1111/jsap.12998

CITATIONS

39

READS

7,611

8 authors, including:



Shane Ryan

Singapore Veterinary Services

5 PUBLICATIONS 65 CITATIONS

[SEE PROFILE](#)



Heather Bacon

University of Central Lancashire

39 PUBLICATIONS 644 CITATIONS

[SEE PROFILE](#)



Nienke Endenburg

Utrecht University

93 PUBLICATIONS 1,063 CITATIONS

[SEE PROFILE](#)



Susan Hazel

The University of Adelaide

123 PUBLICATIONS 1,994 CITATIONS

[SEE PROFILE](#)



WSAVA
Global Veterinary Community

WSAVA Animal Welfare Guidelines

for companion animal practitioners and veterinary teams

ANIMAL WELFARE GUIDELINES GROUP and co-authors of this document:

Shane Ryan BVSc (Hons), MVetStud, CVA, MChiroSc, MRCVS (Singapore)

Heather Bacon BSc, BVSc, CertZooMed, MRCVS (UK)

Nienke Endenburg PhD (Netherlands)

Susan Hazel BVSc, BSc (Vet), PhD, GradCertPublicHealth, GradCertHigherEd, MANZCVS (Animal Welfare) (Australia)

Rod Jouppi BA, DVM (Canada)

Natasha Lee DVM, MSc (Malaysia)

Kersti Seksel BVSc (Hons), MRCVS, MA (Hons), FANZCVS, DACVB, DECAWBM, FAVA (Australia)

Gregg Takashima BS, DVM (USA)

Table of Contents

WSAVA Animal Welfare Guidelines

Table of Figures	6
Preamble	7
References	9
Chapter 1: Animal welfare - recognition and assessment	10
Recommendations	10
Background	10
What do we mean by animal welfare?	11
Animal sentience	12
Animal welfare science and assessment.....	13
The welfare spectrum and how animals cope	14
Animal welfare science and animal ethics	15
What are our responsibilities to improve animal welfare? Applying animal welfare frameworks..	15
Animal welfare and society.....	16
Conclusion.....	17
Checklist	17
References	18
Chapter 2: Measurement and monitoring of animal welfare	20
Recommendations	20
Background	20
Frameworks for the assessment of animal welfare.....	20
Five Animal Welfare Needs.....	20
Five Domains.....	21
Measures of Quality of Life	22
Assessment of animal welfare using the Five Animal Welfare Needs.....	22
Input and output measures of animal welfare	22
The impact of stress on animal welfare	23
Physiological responses to stress.....	24
Behavioural responses to stress	25
Pain and Behaviour	28
Recognition of animal pain	29
Can we assess the level of pain by observing behaviour?	30

Conclusion	30
Checklist	30
References	30
Chapter 3: Welfare needs surrounding the veterinary visit.....	33
General.....	33
Why is animal welfare important during the veterinary visit?	33
Assessing animal welfare using the Five Animal Welfare Needs.....	34
1. The need to be protected from pain, suffering, injury and disease	34
2. The need for a suitable environment	36
3. The need for a suitable diet	38
4. The need to be housed with or apart from other animals	40
5. The need to be able to exhibit normal behaviour patterns.....	42
Welfare needs during stages of the veterinary visit	43
Handling and restraint	44
Record keeping	44
Workplace Safety and Health	44
Checklist	45
References	45
Chapter 4: Ethical questions and moral issues	48
Recommendations	48
Ethics	48
Animal welfare science and Animal Ethics.....	48
Animal ethical theories	49
What is a moral problem?	50
Why does it matter?	50
Approaches to moral problems	50
Common moral problems in veterinary practice.....	52
Selective breeding of companion animals	52
Euthanasia.....	53
Cosmetic and convenience surgeries.....	53
Advanced veterinary treatment.....	54
Client confidentiality	55
Animal cruelty, mistreatment and neglect	55
Sterilisation (Desexing, Spay, Neuter, Castration)	56

Nutritional-related welfare issues	57
Conclusion	58
Checklist	58
References	58
Chapter 5: Communication with owners regarding animal welfare	60
Recommendations	60
Introduction	60
Compliance	61
Empathy	62
Verbal and non-verbal communication	62
Open-ended questions.....	63
Reflective listening	63
Client confidentiality.....	63
Animal mistreatment, cruelty and abuse	63
Checklist	64
References	64
Chapter 6: Outreach - welfare beyond your clinic.....	66
Recommendations	66
Why should you engage in community outreach?	66
Where to start?.....	67
Levels of outreach.....	67
Level 1: Community engagement	67
Level 2: Organisations, NGOs, Academia	69
Level 3: National Level	70
Level 4: International	71
Challenges in outreach.....	71
Conclusion.....	72
Checklist	72
References	72
Toolkit	74
Glossary.....	76
References	77
Acknowledgements	78

Appendix 1: Developing a Standard Operating Procedure for handling suspected animal mistreatment or abuse	79
References	79

Table of Figures

Figure 1. Three overlapping animal welfare concepts (adapted from Fraser, 2008)	12
Figure 2. The welfare spectrum - the general concept of animal welfare shown as a continuum between negative/poor welfare and positive/good welfare.	14
Figure 3. A schematic showing the differences in outcome for animals when they are able to perform normal evolutionary behaviours and skills or if their environment does not allow these to occur. ...	14
Figure 4. An ecological model of the interactions between companion animals, the veterinary clinic, the owner/guardian and the wider community. Modified, based on Stanley, Richardson and Prior (2005)	16
Figure 5. Five Domains Model of measuring animal welfare with examples in each Domain of the features being measured (from Mellor, 2017)	21
Figure 6. Animal welfare can be measured using Input-based measures and Output-based measures	23
Figure 7. Passive responders withdraw and avoid social interactions.	27
Figure 8. Active responders are often vocal and may attempt to paw at passers-by.....	27
Figure 9. Traffic light system for assessing the animal's emotional state	28
Figure 10. Cats benefit from perching and hiding places.	37
Figure 11. For cats in wards/hospital cages, minimum recommended distances between litter tray, resting place, and food container. Adapted from Guidelines for Standards of Care in Animal Shelters. (Attard et al., 2013).....	40
Figure 12. Levels of outreach opportunities range from local to international	68

Preamble

Veterinarians are considered by society to be experts in animal health and the treatment and prevention of animal disease and are similarly regarded in matters of animal welfare. As such, veterinarians are expected to make judgements regarding the welfare of animals both in their care and beyond (Siegford, Cottee and Widowski, 2010). The World Organisation for Animal Health (OIE) recommends that veterinarians *“should be the leading advocates for the welfare of all animals, recognizing the key contribution that animals make to human society through food production, companionship, biomedical research and education”* (OIE, 2012). Additionally, the Federation of Veterinarians of Europe (FVE), together with the Canadian Veterinary Medical Association (CVMA) and the American Veterinary Medical Association (AVMA) declare that *“Veterinarians are, and must continually strive to be, the leading advocates for the good welfare of animals in a continually evolving society”* (AVMA, 2014).

Professional and societal expectations confer a responsibility upon veterinarians to lead the way in promoting good animal welfare, and making ethical decisions for their animal patients, in often difficult situations. The specific decisions made by a veterinarian will vary depending on local legislative requirements, drug and equipment availability, and cultural expectations; a global understanding of the role of the veterinary practitioner in promoting animal welfare is fundamental for advancing companion animal* health and welfare around the world.

So, what is animal welfare? While there currently is no universally accepted definition, for the purpose of this document we will define it as follows:

**“Animal welfare is the physical and psychological, social
and environmental well-being of animals”**

Veterinary professionals are expected to provide not only for physical health, but also the non-physical aspects of animal welfare that allow for the psychological, social and environmental well-being of their patients. And veterinarians must do so in the face of a diverse social-economic, cultural, technological, and educational world.

Companion animal practice is a rapidly growing and increasing important segment of the global veterinary profession, with the World Small Animal Veterinary Association (WSAVA) itself representing more than 200,000 individual veterinarians belonging to over 100 associations (WSAVA, 2018). The benefits of leading companion animal practitioners to a better understanding of, and

* Companion animals can be defined as “domesticated or domestic-bred animals whose physical, emotional, behavioural and social needs can be readily met as companions in the home, or in close daily relationship with humans” (ASPCA, 2018). While this definition can encompass many species of animals, this document primarily refers to the welfare of dogs and cats. However, the welfare principles are universal and can be applied to other animal species not specifically mentioned here.

practice in animal welfare are many, and include increased professional satisfaction, enhanced client perceptions and improved compliance, safety, and benefits to individuals and communities.

A good understanding of how to provide for the pet's welfare also provides a means of building trust with animal-owners. Studies have shown that owners whose pets are considered "part of the family" are more responsive to veterinary recommendations, as are those who have an established pet-owner-veterinary bond (Lue, Pantenburg and Crawford, 2008). A recent survey revealed that clients of veterinarians who discussed with them the value of human-animal connections were up to 77% more likely to follow the veterinary recommendations, come for wellness appointments and purchase pet insurance (HABRI, 2016). Overall, this can allow for better patient care, improve professional satisfaction for the veterinarian and the veterinary team, and result in healthier animals and happier pet-owning individuals or families.

Multiple human-health studies have provided scientific evidence that pets can influence human physical and emotional health, minimise depression, and improve social interactions amongst people (Takashima and Day, 2014). Evidence was so compelling in relation to cardiovascular disease (CVD) that, in 2013, the American Heart Association issued the statement that "pet ownership, particularly dog ownership, may be reasonable for reduction in CVD risk" (Levine et al., 2013). These and other studies help underline the importance of pets in people's lives and how pet-owner relationships can influence human health.

The evidence for a mutually beneficial relationship between humans and their pets continues to mount, and the need for universally accepted guidelines for companion animal welfare has been identified. As a global veterinary association, WSAVA is ideally placed to introduce these animal welfare guidelines, designed to be utilised by all companion animal veterinarians no matter in what geographical region they practice.

These guidelines are intended to assist companion animal veterinarians throughout the world in their understanding of contemporary animal welfare concepts and science, and provide guidance on addressing potential animal welfare problems, navigating some more common ethical issues, and promoting good animal welfare through effective communication, both within the veterinary clinic* and beyond.

* Throughout these guidelines the term "veterinary clinic" is used as a universal descriptor for any place (or circumstance) where veterinary services are offered, no matter how large or small, advanced or modest in scope. The term is intended to be synonymous with veterinary and/or animal - surgery, practice, facility, centre, hospital etc.

References

- ASPCA (2018). *Definition of Companion Animal*. [online] ASPCA. Available at: <https://www.asPCA.org/about-us/asPCA-policy-and-position-statements/definition-companion-animal> [Accessed 2 Jul. 2018].
- AVMA (2014). *Joint AVMA-FVE-CVMA Statement on the Roles of Veterinarians in Ensuring Good Animal Welfare* [online] Available at: <https://www.avma.org/KB/Policies/Pages/Joint-Statement-Animal-Welfare.aspx> [Accessed 8 Jun. 2018].
- HABRI. (2018). *2016 Pet Owners Survey | HABRI*. [online] Available at: <https://habri.org/2016-pet-owners-survey> [Accessed 8 Jun. 2018].
- Levine, G., Allen, K., Braun, L., Christian, H., Friedmann, E., Taubert, K., Thomas, S., Wells, D. and Lange, R. (2013). Pet Ownership and Cardiovascular Risk: A Scientific Statement From the American Heart Association. *Circulation*, 127(23), pp.2353-2363.
- Lue, T., Pantenburg, D. and Crawford, P. (2008). Impact of the owner-pet and client-veterinarian bond on the care that pets receive. *Journal of the American Veterinary Medical Association*, 232(4), pp.531-540.
- OIE (2012). OIE recommendations on the Competencies of graduating veterinarians ("Day 1 graduates") to assure National Veterinary Services of quality. [ebook] Paris: OIE, p.8. Available at: <http://www.oie.int/en/solidarity/veterinary-education/competencies-of-graduating-veterinarians/> [Accessed 8 Jun. 2018].
- Siegford, J., Cottee, S. and Widowski, T. (2010). Opportunities for Learning about Animal Welfare from Online Courses to Graduate Degrees. *Journal of Veterinary Medical Education*, 37(1), pp.49-55.
- Takashima, G. and Day, M. (2014). Setting the One Health Agenda and the Human–Companion Animal Bond. *International Journal of Environmental Research and Public Health*, 11(11), pp.11110-11120.
- WSAVA (2018). *Who We Are*. [online] Available at: <http://www.wsava.org/about/who-we-are> [Accessed 8 Jun. 2018].

Chapter 1: Animal welfare - recognition and assessment

Recommendations

To realise the veterinary profession's commitment to the highest animal welfare standards, WSAVA calls on member organisations and companion animal veterinarians to:

1. develop an animal welfare charter that reflects their commitment to animal welfare.
2. seek to continuously improve animal welfare understanding and so promote positive welfare states for all companion animals in all veterinary interactions.
3. promote knowledge and understanding of animal welfare and its management within the wider community of pet owners.
4. cater to both physical and behavioural needs of animals when providing for their care in veterinary clinics.

Background

The general public are increasingly concerned with how animals are treated in society and the promotion of good animal welfare (Siegford, Cottee and Widowski, 2010). But what does good animal welfare actually mean?

Animals have always been an integral part of human lives. From early prehistory, humans were closely associated with animals. This is evident with prehistoric drawings of animals, including the art of Chauvet Cave, some 36,000 years ago (Shipman, 2010). While the role of companion animals in human lives varies around the world, they play an important role in human society in many places. Pet ownership is a global phenomenon (McConnell et al., 2011). Nearly 70% of North Americans share their lives with at least one pet (Hodgson et al., 2015), while in Australia there are more than 24 million pets, equalling or surpassing the total human population (Animal Medicines Australia, 2016). Pet ownership in Brazil is estimated at 132 million with more than 52 million dogs; China more than 22 million dogs and 53 million cats; Japan more than 9 million dogs and 7 million cats; France more than 8 million dogs and 9 million cats, with least one cat or one dog owned 29% and 20% of households respectively (McConnell et al., 2011; Statista, 2017), while in Tanzania nearly 14% of households owned at least one dog (Knobel, 2008).

People and animals have had close associations throughout time due to the human-animal bond. The human-animal bond is described as a mutually beneficial relationship between people and animals that is essential to the health and well-being of both (AVMA, 2018). Human-animal interactions include any situation where there is contact between humans and animals at an individual and cultural level (AVMA, 2018). Interactions with animals result in a number of benefits to humans. In children, there are associations between pet ownership and a lower prevalence of allergic sensitisation (Ownby, 2002), and educational and cognitive benefits (Purewal et al., 2017), while in adults, improvements in cardiovascular measures and decreases in loneliness are reported (Matchock, 2015).

Veterinary attitudes to animal welfare are important for several reasons; concern for the welfare of animals is considered to be an essential part of veterinary practice (Paul and Podberscek, 2000). As outlined above there are a number of positive benefits to humans as a result of their relationships with animals. In the veterinary clinic, in addition to professional satisfaction, protecting the welfare of animals may provide positive economic benefits. Owners will prefer the clinical setting where their pet is well cared for and not distressed during the visit. Dogs and cats may become distressed by any procedure including manual restraint, and a lasting impact on the emotional state of the patient can predispose to a negative conditioned emotional response which may lead to increased difficulty during future patient visits (Barletta and Raffe, 2017). Gentle handling and appropriate sedation when required can help avoid stressful encounters and can improve the welfare outcome for both cats and dogs. Owners who appreciate the improved outcomes are more likely to remain loyal clients of the clinic and help, through word-of-mouth recruitment, to introduce new clients; and as a result, economic benefits to the clinic can follow.

What do we mean by animal welfare?

The welfare of animals is an emotive topic and may mean different things to different people. Additionally, the words welfare and well-being are often used interchangeably. In scientific terms, no universally accepted definition of animal welfare exists, however those most commonly used encompass many of the same ideas and principles. There have been several definitions proposed in the scientific literature, for example *“the state of an individual (animal) as regards its attempts to cope with its environment”* (Broom, 1986). It has also been suggested that to define animal welfare we should ask two questions: *“Are the animals healthy?”* and *“Do the animals have what they want?”* (Dawkins, 2008). Broadly speaking, animal welfare refers to the physiological and psychological well-being of animals – effectively, how is an individual animal coping, both mentally and physically, at a particular point in time.

In these guidelines we define animal welfare as the physical and psychological, social and environmental well-being of animals. A consistent definition is important as our perception of what welfare entails will affect how we evaluate, view and treat the animals under our care.

There are three overlapping concepts of animal welfare as defined by Fraser (2008):

1. physical state and functioning;
2. psychological or mental (affective) state;
3. ability to perform natural behaviours and live according to its natural state.

These three aspects of animal welfare are interconnected, but peoples and societies can place different levels of importance to each. It is essential that we are aware of our own biases towards each of these areas as if we focus too much on one, we may overlook problems in another area. For example, as veterinarians we are trained to focus heavily on physical health and thus we often focus on health-related parameters of welfare. However, welfare is not synonymous only with physical health and it is essential that we also consider psychological and behavioural aspects of health. In

particular, how the animal feels (its psychological or mental state) is vitally important for positive animal welfare.

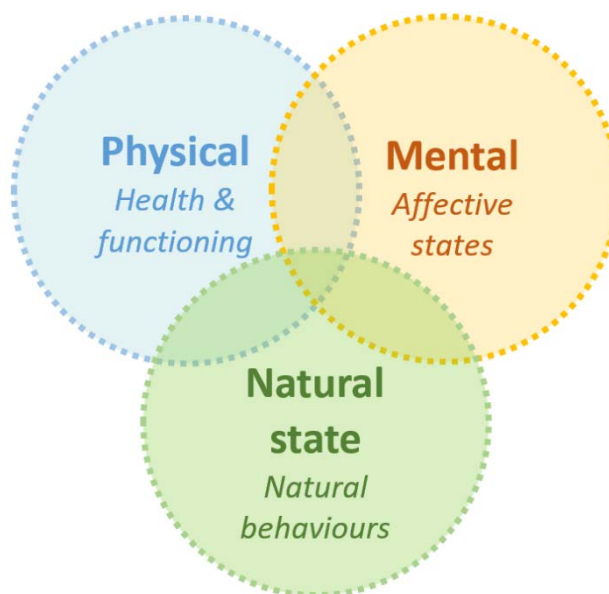


Figure 1. Three overlapping animal welfare concepts (adapted from Fraser, 2008)

Animal sentience

Sentience is an important concept in animal welfare. Professor John Webster defines animal sentience as “feelings that matter” (Webster, 2007) and suggests that sentient animals have an awareness of their environment and the ability to make choices.

The New Zealand Veterinary Association defines sentience as the ability to feel, perceive or experience subjectively. Animals are not only being capable of feeling pain and distress, but also having positive experiences such as comfort, pleasure or interest that are appropriate to its species, environment and circumstances (NZVA, 2018). The European Union’s Lisbon Treaty of 2009 acknowledges that animals are sentient beings (European Commission, 2009), and other countries such as New Zealand also recognise animal sentience (New Zealand Animal Welfare Act, 1999). The American Animal Hospital Association has also adopted a position supporting the concept of animals as sentient beings (AAHA, 2012).

Sentience includes an animal’s ability to experience positive and negative affective states (emotions plus other feelings such as hunger and thirst), including pain. Animals will choose to seek positive and avoid negative experiences. This occurs regardless of an animal’s intelligence; suffering and pleasure are defined as the ability to feel, and not by the ability to think. Recognition of animal sentience in law may go above simply protecting animals from pain or suffering, as the definition of sentience includes both positive and negative states, thus promoting positive welfare, not simply protecting against poor welfare.

Animal welfare science and assessment

Science can help us to determine the physical and mental factors that affect the welfare of animals and to measure an animal's welfare objectively. Welfare assessment requires an understanding of a range of scientific disciplines such as behaviour, health and immunology (Dawkins, 1998). Scientific evaluation of animal welfare issues provides an objective way to make decisions about animals and what matters to them. Taking a non-emotive, scientific approach and using evidence from rigorous studies of animals and their responses to environmental challenges, we can be more confident that we are providing a view of the situation that better reflects the situation from the animal's point of view.

However, science alone cannot help us to decide on the right and wrong way to treat animals.

- Science – can tell us what animals **need**;
- Ethics – can tell us how we **should treat** animals;
- Law – tells us how we **must treat** animals.

In measuring animal welfare, we use science-based indicators, whilst deciding on how an animal should be treated we use value-based judgements. People's judgements on the way animals should be treated vary, with differences depending on culture, religion and other factors. In some parts of the world it is societally acceptable for dogs to roam and enjoy a high level of behavioural freedom; however, these dogs may experience a variety of health problems such as infectious diseases (good welfare according to natural living but poor welfare according to physical state). In other parts of the world, free-roaming dogs are not societally acceptable (value-based judgements) and so these dogs would be in some way restricted (e.g. housed or put into a shelter) where they may have a good physical state (e.g. infectious disease control through veterinary care and vaccination), but they may experience poor behavioural and psychological welfare due to environmental restriction. In both cases a value-based judgement has been made about what is a societally acceptable way to manage dogs, but in each case that judgement has not necessarily resulted in a good welfare state.

Animals under human care experience many factors that might affect their welfare. These include the social and physical environment, dietary factors, interactions with humans and members of their own or other species as well as their ability to exhibit behaviours normal or typical for their species. Because of differences between species and their behaviour, there are specific welfare concerns for different animals. For example, a welfare concern for some pet dogs is being left home alone. When adequately socialised, dogs are typically social animals, and being left alone can result in negative psychological welfare, causing frustration and anxiety in some individuals. Conversely cats may struggle with social living as they are selectively-social and may have difficulty in coping when there is competition for resources or social conflict with other cats. Often welfare problems arise when there is a conflict between animal needs and human desires.

The welfare spectrum and how animals cope

Recognising that animals may experience both positive and negative emotional states, good and poor health, and behavioural diversity or restriction, we can see that these elements all influence the welfare of the animals along a continuum from negative or poor welfare to positive or good welfare (Figure 2, adapted from Ohl and van der Staay, 2012).



Figure 2. The welfare spectrum - the general concept of animal welfare shown as a continuum between negative/poor welfare and positive/good welfare.

While the intent may be always to achieve high levels of good animal welfare, animals have evolved to interact with and adapt to varied environments. Thus, short periods of “negative welfare” may be inevitable and necessary as triggers for an animal to respond with the appropriate physiological and behavioural repertoire to allow adaptation to any changes (Ohl and Putman, 2014). An animal’s welfare is not generally at risk unless its ability to respond is not adequate to meet an environmental challenge (Korte et al., 2009), or unless it is housed in a situation to which it cannot adapt or cope. When an animal can cope with these changes, adaptation or habituation occurs. However, when an animal cannot cope, suffering, learned helplessness and unpleasant feelings such as frustration or anxiety may occur (see Figure 3).

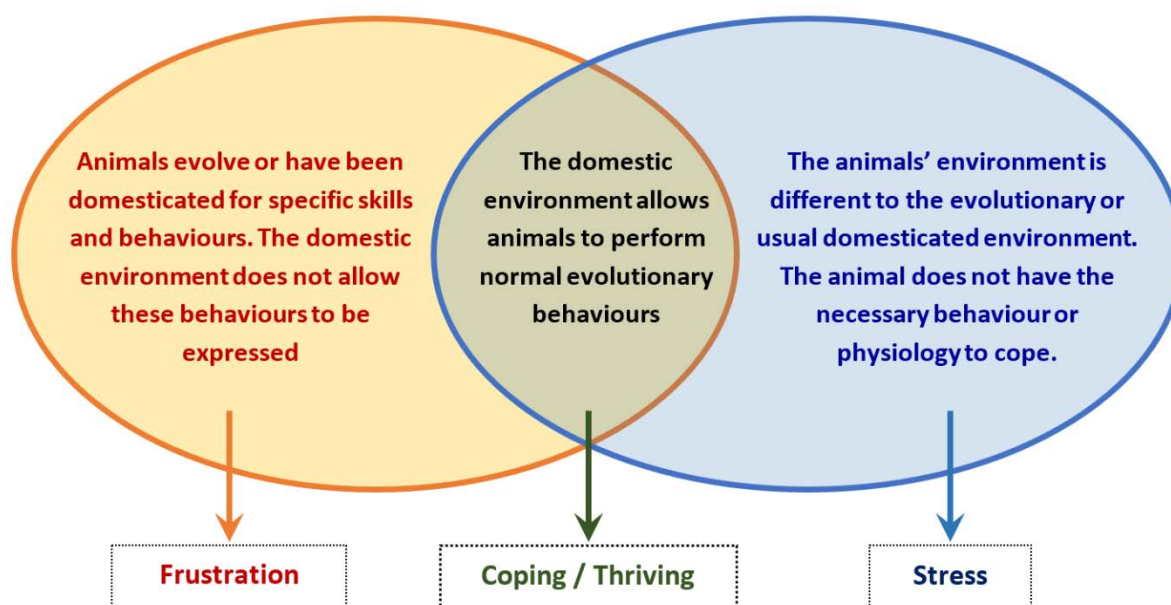


Figure 3. A schematic showing the differences in outcome for animals when they are able to perform normal evolutionary behaviours and skills or if their environment does not allow these to occur.

[Animal welfare science and animal ethics](#)

Animal welfare is about the experiences of an animal and how it is feeling and coping, including its physical and psychological state. Animal welfare science uses scientific methods to help us to determine the impact of human actions on the welfare of the animals. For example, we may analyse the behaviours displayed by an animal, and measure stress hormones in the blood to evaluate an animal's welfare state. We would then apply our ethical judgement to determine whether that animal's welfare state was acceptable or whether we had an ethical responsibility to take steps to mitigate any welfare problems (Meijboom, 2017).

Animal ethics is a philosophical study of why animals matter morally and how we should treat and care for animals i.e. what is right or wrong in our treatment of animals. Animal welfare requires both scientific assessments and discussions on animal ethics based on philosophical analysis. In Chapter 4 we discuss some of the important animal ethical theories are used to determine how an animal should be treated.

[What are our responsibilities to improve animal welfare? Applying animal welfare frameworks](#)

In 1965, growing public concern in the UK over the treatment of animals in intensive livestock farming led to the development of an independent inquiry into farm animal welfare, and the subsequent publication of the Brambell Report (Brambell, 1965). This in turn led to the establishment of the U.K. Farm Animal Welfare Council (FAWC). FAWC was an independent advisory body and developed the **Five Freedoms** as a framework to meet the welfare needs of farmed species (National Archives, 2012). In 2006, the Five Freedoms were adapted into the **Five Animal Welfare Needs**, applicable to all domestic animals.

The Five Animal Welfare Needs provide a useful framework for ensuring that human caregivers are providing for the basic welfare requirements of animals:

- The need for a suitable environment
- The need for a suitable diet
- The need to be able to exhibit normal behaviour patterns
- The need to be housed with, or apart from, other animals
- The need to be protected from pain, suffering, injury and disease.

These needs take into account the physical and psychological welfare of the animal and require that animal caregivers are familiar with the needs of the species in their care. The list of needs is not definitive; however, they provide a useful framework, and categorisation, of possible welfare concerns. For example, a housing system may provide an animal with all it needs for good physical health, such as food, water, warmth and shelter, therefore in terms of its health, the animal may be experiencing a high level of welfare. However, the same housing system may be very restrictive in terms of the ability to exhibit normal behaviour, and in that respect, the animal may be experiencing poor welfare. Possibly what is most relevant to animal welfare is how an animal actually "feels".

The welfare of companion animals in a veterinary clinic is monitored through clinical assessment and behavioural observations. To be able to maintain and improve animal welfare in companion animal veterinary clinics, we should encourage explicit and straightforward recording of animal welfare, including physical and psychological welfare. Use of the Five Animal Welfare Needs outlined above affords a practical approach of allowing for both physical and psychological well-being. In the next Chapter, further detail will be provided on how animal welfare can be measured in veterinary practice.

Animal welfare and society

When considering potential obstacles that obstruct interventions to protect animal welfare, it is timely to consider how animals, humans, society and environment closely interact. It is implausible to think about animals without considering their wider ecological context. Stanley, Richardson and Prior (2005) developed an ecological model for the development of children, and this committee has adapted this ecological model for companion animals (see Figure 4).

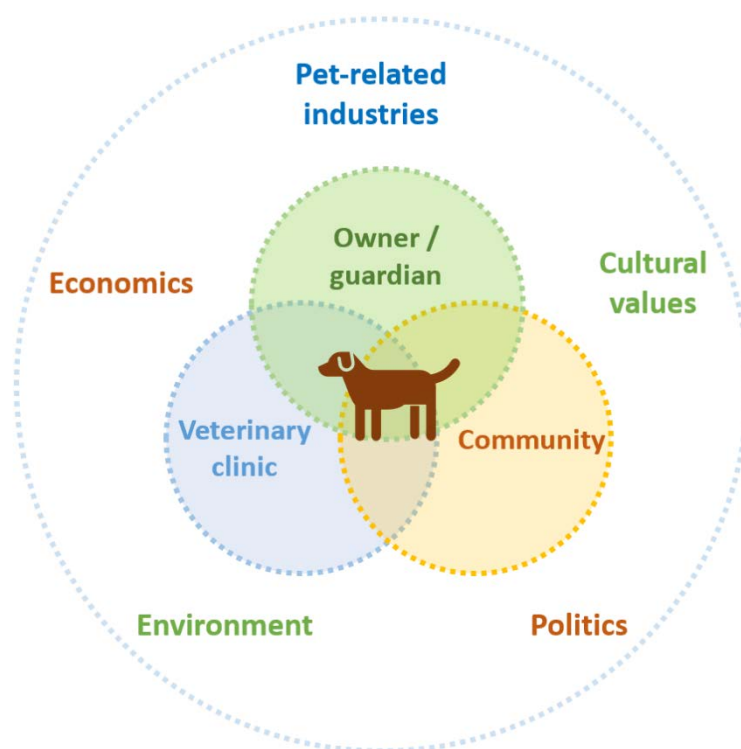


Figure 4. An ecological model of the interactions between companion animals, the veterinary clinic, the owner/guardian and the wider community. Modified, based on Stanley, Richardson and Prior (2005)

The companion animal sits in the centre of this model and is directly influenced by its owner(s), the wider community, and the veterinary care that it receives. Outside this inner circle of influence, the animal may be impacted by the environment (e.g. dog off-lead exercise areas), economics (e.g. personal financial constraints may affect the affordability of veterinary care), cultural values (e.g. in some cultures dogs are regarded as work or food animals rather than companions, while the impact of cats on local wildlife adversely affects public tolerances), and local and international politics. These

WSAVA Guidelines focus on the interactions that occur in the veterinary clinic, but this model is a reminder that we need to always keep in mind the bigger picture of how animals interact with people and the wider community and society. Furthermore, as discussed above the human-animal bond is an integral part of this entire system and should not be underestimated.

In a model society, all would continually and automatically think about our actions and decisions in terms of their importance for, and impact on, companion animals, their owners and the broader community. All veterinary guidelines and protocols would be assessed to ensure they delivered the best welfare outcome for all pets under the clinic's care. Veterinary clinics and teams would safeguard the welfare not only of their own patients and their owners, but also reach out to the wider community through advocacy and provide professional expertise in all matters relating to companion animals. This would include all aspects of animal welfare, from managing urban populations of dogs and cats, to support for unwanted pets and planning to provide physical and mental exercise for dogs (and their owners) in all environments.

Conclusion

The field of animal welfare is complex and involves the application of a range of scientific indicators to determine how an animal is coping and how it feels. Animal ethics is a philosophical approach to determining how we should treat animals by applying value-based judgements. Companion animals play important roles for people around the world, including as companions and assistance animals, and the role of the veterinarian in improving their welfare is an important one for the profession and to society as a whole.

Checklist

- ✓ Are you up to date with scientific advances in understanding and assessing animal welfare?
 - ✓ Do you have a stated policy commitment to manage and promote animal welfare in your clinic?
 - ✓ Do you have a written animal welfare charter outlining the principles of your clinic's or association's commitment to protecting animal welfare? (e.g. RSPCA, 2018; Charter for Animal Compassion, 2018)
 - ✓ Do all your staff members understand the clinic's commitment to manage and promote animal welfare?
 - ✓ Have you communicated your commitment to animal welfare to your clients, community and others?
 - ✓ Is your veterinary association's or licensing body's veterinary oath or affirmation available for all to view in the clinic? (see WSAVA Veterinary Oath, 2014)
 - ✓ Does your approach to animal welfare seek to minimise any negative welfare states?
 - ✓ Does your approach to animal welfare always strive to promote positive welfare states?
-

References

- American Animal Hospital Association (AAHA) (2012). *Sentient beings / AAHA*. [online] AAHA.org. Available at: https://www.aaha.org/professional/resources/sentient_beings.aspx [Accessed 8 Jun. 2018].
- Animal Medicines Australia (2016). *Pet Ownership in Australia 2016*. [online] [ebook] Available at: http://www.animalmedicinesaustralia.org.au/wp-content/uploads/2016/11/AMA_Pet-Ownership-in-Australia-2016-Report_sml.pdf [Accessed 8 Jun. 2018].
- AVMA (2018). *Human-Animal Bond*. [online] AVMA.org. Available at: <https://www.avma.org/kb/resources/reference/human-animal-bond/pages/human-animal-bond-avma.aspx> [Accessed 8 Jun. 2018].
- Barletta, M. and Raffe, M. (2017). Behavioral response and cost comparison of manual versus pharmacologic restraint in dogs. *Advances in Small Animal Medicine and Surgery*, 30(1), pp.2-3.
- Brambell, R. (1965). *Report of the Technical Committee to Enquire Into the Welfare of Animals Kept Under Intensive Livestock Husbandry Systems, Cmd.* (Great Britain. Parliament), H.M. Stationery Office, pp. 1–84
- Broom, D. (1986). Indicators of poor welfare. *British Veterinary Journal*, 142(6), pp.524-526.
- Charter for Animal Compassion. (2018). *Charter for Animal Compassion*. [online] Available at: <https://charterforanimalcompassion.com/> [Accessed 29 Jun. 2018].
- Dawkins, M. (1998). Evolution and animal welfare. *The Quarterly Review of Biology*, 1(73), pp.305-328.
- Dawkins, M. (2008). The Science of Animal Suffering. *Ethology*, 114(10), pp.937-945.
- European Commission (2009). *Animal welfare - Food Safety - European Commission*. [online] European Commission. Available at: https://ec.europa.eu/food/animals/welfare_en [Accessed 8 Jun. 2018].
- Fraser, D. (2008). Understanding animal welfare. *Acta Veterinaria Scandinavica*, 50(Suppl 1), p. S1.
- Hodgson, K., Barton, L., Darling, M., Antao, V., Kim, F. and Monavvari, A. (2015). Pets' Impact on Your Patients' Health: Leveraging Benefits and Mitigating Risk. *The Journal of the American Board of Family Medicine*, 28(4), pp.526-534.
- Knobel, D. (2008). *Aspects of dog ownership and canine rabies control in Africa and Asia*. PhD. The University of Edinburgh.
- Korte, S., Prins, J., Vinkers, C. and Olivier, B. (2009). On the origin of allostasis and stress-induced pathology in farm animals: Celebrating Darwin's legacy. *The Veterinary Journal*, 182(3), pp.378-383.
- Meijboom, F. (2017). More Than Just a Vet? Professional Integrity as an Answer to the Ethical Challenges Facing Veterinarians in Animal Food Production. *Food Ethics*, 1(3), pp.209-220.
- Matchock, R. (2015). Pet ownership and physical health. *Current Opinion in Psychiatry*, 28(5), pp.386-392. <https://doi.org/10.1097%2FYCO.0000000000000183>.
- McConnell, A., Brown, C., Shoda, T., Stayton, L. and Martin, C. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology*, 101(6), pp.1239-1252.
- National Archives. (2018). *Farm Animal Welfare Council - 5 Freedoms*. [online] Available at: <http://webarchive.nationalarchives.gov.uk/20121010012427/http://www.fawc.org.uk/freedoms.htm> [Accessed 16 Jun. 2018].

New Zealand Animal Welfare Act (1999). Animal Welfare Act 1999 No 142 (as at 01 March 2017), Public Act Contents – New Zealand Legislation. [online] Available at: <http://www.legislation.govt.nz/act/public/1999/0142/56.0/DLM49664.html> [Accessed 8 Jun. 2018].

NZVA (2018). *Sentience - New Zealand Veterinary Association*. [online] NZVA.org.nz. Available at: <http://www.nzva.org.nz/page/positionsentience/Sentience.htm> [Accessed 8 Jun. 2018].

Ohl, F. and van der Staay, F. (2012). Animal welfare: At the interface between science and society. *The Veterinary Journal*, 192(1), pp.13-19.

Ohl, F. and Putman, R.J. (2014). Animal welfare considerations: should context matter? *Jacobs Journal of Veterinary Science and Research*, 1(1):006.

Ownby, D. (2002). Exposure to Dogs and Cats in the First Year of Life and Risk of Allergic Sensitization at 6 to 7 Years of Age. *Journal of the American Medical Association*, 288(8), p.963.

Paul, E. and Podberscek, A. (2000). Veterinary education and students' attitudes towards animal welfare. *Veterinary Record*, 146(10), pp.269-272.

Purewal, R., Christley, R., Kordas, K., Joinson, C., Meints, K., Gee, N. and Westgarth, C. (2017). Companion Animals and Child/Adolescent Development: A Systematic Review of the Evidence. *International Journal of Environmental Research and Public Health*, 14(3), p.234.

RSPCA (2018). *RSPCA Australia animals charter - RSPCA Australia knowledgebase*. [online] RSPCA.org.au. Available at: http://kb.rspca.org.au/RSPCA-Australia-animals-charter_316.html [Accessed 8 Jun. 2018].

Shipman, P. (2010). The Animal Connection and Human Evolution. *Current Anthropology*, 51(4), pp.519-538.

Siegford, J., Cottee, S. and Widowski, T. (2010). Opportunities for Learning about Animal Welfare from Online Courses to Graduate Degrees. *Journal of Veterinary Medical Education*, 37(1), pp.49-55.

Statista. (2017). *France: households owning cats and dogs 2010-2017 | Statistic*. [online] Available at: <https://www.statista.com/statistics/517012/households-owning-cats-dogs-europe-france/> [Accessed 2 Jul. 2018].

Statista. (2017). *Number of pets owned in Brazil by type 2017 | Statistic*. [online] Statista. Available at: <https://www.statista.com/statistics/799179/brazil-number-pets-type/> [Accessed 2 Jul. 2018].

Stanley, F., Prior, M. and Richardson, S. (2007). *Children of the lucky country?* [South Melbourne]: Pan Macmillan Australia.

Webster, J. (2007). *Limping Towards Eden: Stepping Stones*. In Animal Welfare: Limping Towards Eden, J. Webster (Ed.). <https://doi.org/10.1002/9780470751107.ch11>

WSAVA (2014). *WSAVA Veterinary Oath*. [online] Available at http://www.wsava.org/WSAVA/media/PDF_old/WSAVA-Veterinary-Oath.pdf [Accessed 8 Jun. 2018].

Chapter 2: Measurement and monitoring of animal welfare

Recommendations

To confirm our commitment to the highest animal welfare standards, WSAVA calls on all veterinary associations to support and all veterinarians to promote:

1. relevant scientific training and expertise in all animal care staff.
2. education and training in the latest developments in animal health and welfare monitoring methods, and link with other professional bodies and organisations to share knowledge and best practices.
3. science-based animal welfare monitoring processes that use indices of an animal's physical/functional and behavioural states.
4. development and maintenance of a staff culture that practices regular reporting and monitoring of the behaviour and health of companion animals in their care. This includes keeping all animal records up to date.
5. whole-of-life care for pets, including specific policies for very young, ill, injured and geriatric animals.

Background

To promote the best possible animal welfare within the veterinary clinic, it is necessary to use objective methods of assessment. This chapter outlines the science-based measures of animal welfare that may be utilised, using examples from the most common companion animal species. Such measures will allow the explicit monitoring of animal welfare in the companion animal veterinary setting, ensuring rapid intervention whenever a negative welfare situation occurs, and encouraging veterinarians and veterinary establishments to promote positive welfare states.

Frameworks for the assessment of animal welfare

Before discussing specific measures that can be used to evaluate animal welfare, it is necessary to review animal welfare frameworks. These frameworks permit an over-arching view of the measurements and benchmarking indices used animal welfare assessment.

Five Animal Welfare Needs

The Five Animal Welfare Needs are the framework we recommend for use in these guidelines. This is because they are relatively simple and easy to understand and use, and unlike the Five Freedoms they are achievable and support positive welfare states.

The Five Animal Welfare Needs are:

1. ***The need for a suitable environment.*** The environment of the dog and cat whether at home or in the clinic needs to provide protection and comfort with a quiet resting place, regular toileting facilities, and provision for movement and exercise in hygienic surrounds.

2. ***The need for a suitable diet.*** The diet of dogs and cats should provide for their physiological and behavioural needs. Adequate nutrition can be measured using weight change and/or body / muscle condition scores, and appropriate food and water intake. Note that welfare may be poor at both extremes, if insufficient food is consumed leading to malnutrition and if excess food is consumed leading to obesity.
3. ***The need to be housed with, or apart, from other animals.*** Some of our companion animals have evolved the behaviours required to live in social groups, others to live semi-solitary lifestyles. Dogs may live happily with another dog, but this should be assessed on an individual basis depending on their socialisation, genetics and prior experience. Dogs that live alone will likely need more contact with humans. Likewise, cats may live with another cat, but this can also lead to disputes, fights and negative welfare, especially if the cats are not introduced together as kittens.
4. ***The need to be able to exhibit normal behaviour patterns.*** This includes the display of normal or species-typical behaviours such as toileting, hiding, and interacting with humans or other animals. If an animal is confined to a small cage or chained in a small enclosure this will represent a restriction on its ability to explore the environment and exercise.
5. ***The need to be protected from pain, suffering, injury and disease.*** Absence of injuries such as cuts or abrasions, or from infectious, parasitic or other disease. When pain is present, for example in older animals with arthritis, then adequate pain relief should be provided.

Five Domains

The Five Domains Model, developed by Professor David Mellor from Massey University, is designed to “facilitate systematic, structured, comprehensive and coherent assessment of animal welfare” (Mellor, 2017). This model has been elaborated to incorporate measures of positive welfare, as well as protection from negative welfare states. The Five Domains are displayed in Figure 5.

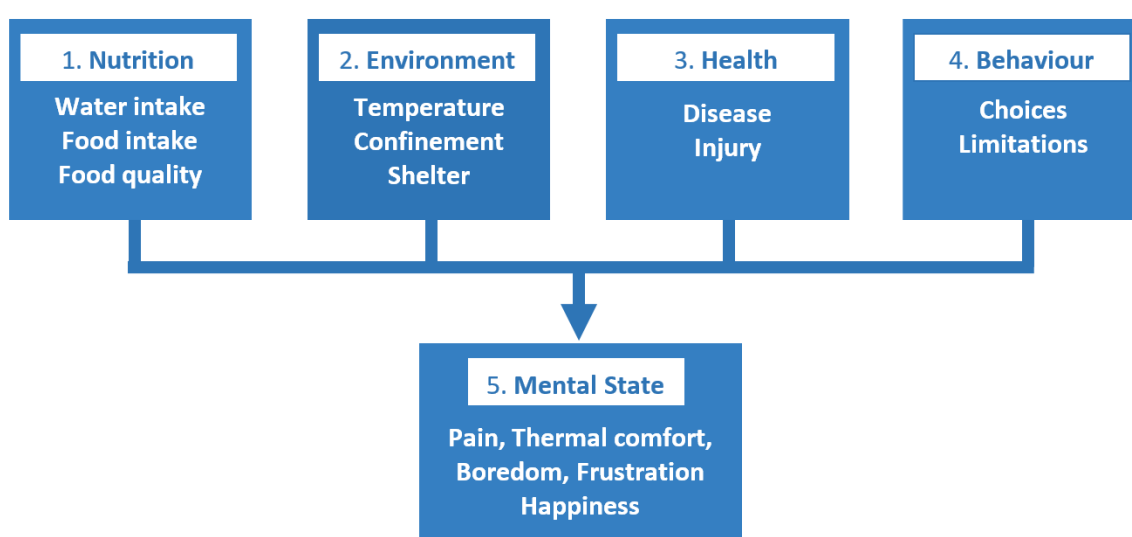


Figure 5. Five Domains Model of measuring animal welfare with examples in each Domain of the features being measured (from Mellor, 2017)

Each of the four domains in the top row – Nutrition, Environment, Health and Behaviour - will influence fifth domain, the mental state of the animal. For example, if the animal is not provided with food and water in Domain 1, then it will experience hunger and thirst in Domain 5.

Measures of Quality of Life

Quality of Life (QoL) is a similar concept to animal welfare, and QoL measurement tools may be used in managing chronic diseases. In humans, QoL is commonly assessed by self-reporting. Of course, this is not possible in animals, and since proxy measures by humans are used, instruments designed to measure QoL by pet owners or veterinarians must be adequately tested for reliability and validity. Most of the QoL measures developed for companion animals are disease-specific, and there are no well validated general methods currently available (Belshaw et al., 2015). There have however been recently developed validated, owner-generated, general assessments e.g. the Canine Symptom Assessment Scale (PennCHART, 2016) and Pet Problem Severity Scale (PPSS) (Spitznagel et al., 2018).

Assessment of animal welfare using the Five Animal Welfare Needs

While the other frameworks can be helpful in some contexts, the Five Animal Welfare Needs framework is recommended for veterinarians to use in companion animal practice because it is easily understood and applied across all types of settings around the world. The Five Animal Welfare Needs are already used to provide information to pet owners on improving the welfare of their pets, for example by the People's Dispensary for Sick Animals (PDSA) in the UK. Use of this framework has also been used in benchmarking owner knowledge and protection of animal welfare in pets in the UK (PDSA, 2018).

Input and output measures of animal welfare

In trying to assess welfare, what we are really trying to do is to determine how animals feel about what they are experiencing in relation to their housing, transport, management, handling etc. Animals experience a range of positive or negative emotional states that may affect their ability to cope with their environment. Examples of emotional states include boredom, fear, pain, frustration, distress, contentment and playfulness. Boredom can arise from barren, under-stimulating and excessively predictable environments. Frustration is very often triggered by restriction of natural behaviours. Anxiety, fear and distress can be caused by particular events or experiences in the animal's environment e.g. chronic social tensions, an excess of unpredictable situations and over-stimulation. Improvement in veterinary clinic design, appropriate nursing care and husbandry practices may all contribute to reducing these negative emotional states.

Animals respond directly to the environment around them. These responses can be measured and used as indicators of animal welfare. It can be helpful to visualise the state of an animal's welfare by using Input and Output measures (see Figure 6). Inputs include factors such as housing, environment and nutrition, and also the types of social contact with humans and/or animals, and veterinary care.

There is an absolute requirement for inputs such as good nutrition to provide the basis for good animal welfare. Output measures can be very helpful in the evaluation of whether or not adequate inputs are being provided to the animal and are often preferred as they may give a more accurate picture of the animal's welfare state. For example, if vaccination has not occurred then the animal will be susceptible to infectious diseases, which would lead to a negative effect on welfare. If a dog or cat is not provided with companionship of a human or other animal then they may show physiological and behavioural signs of distress, such as separation anxiety.

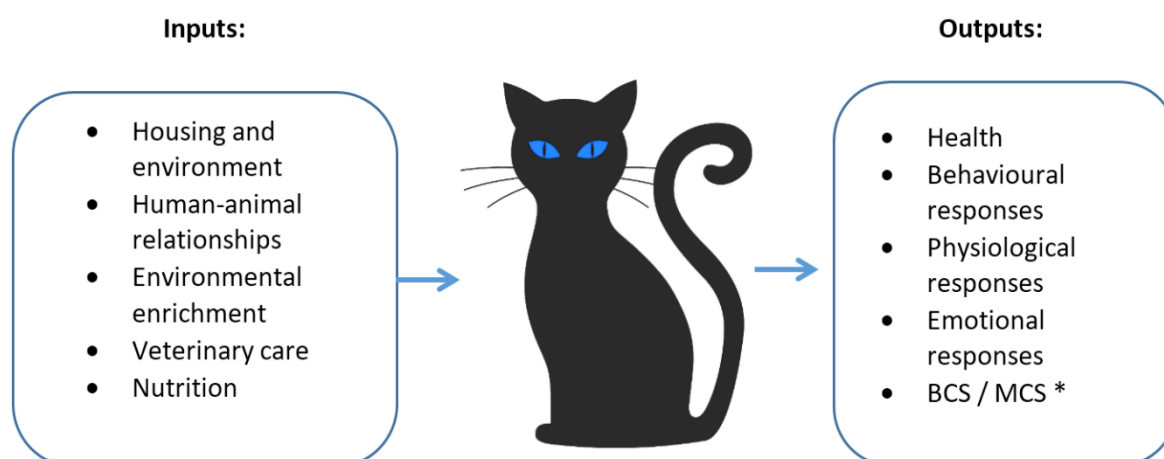


Figure 6. Animal welfare can be measured using Input-based measures and Output-based measures

* BCS = Body Condition Score; MCS = Muscle Condition Score. Charts available at WSAVA.org (WSAVA, 2018).

We can use our knowledge of animal physiology and both normal and abnormal behaviour as complementary approaches in the assessment of the welfare of an animal. We can also employ experimental techniques to determine the preferences of an animal, or how aversive it finds a procedure. These experimental techniques allow us to “ask” the animals how they feel about their environment. We can then modify the environment accordingly, to improve the welfare of the animal. Animals cope with changes through physiological and behavioural mechanisms which are co-ordinated by the brain. In the short term there are adaptive responses to metabolism, immune and cardiovascular systems and their activation may restore the necessary balance without suffering. However, if sub-optimal environmental or social conditions persist, the related stress response will be prolonged, resulting in physiological and psychological damage, with behavioural changes and negative mental states. These chronic stress responses lead to chronic-stress related pathologies.

[The impact of stress on animal welfare](#)

A stressor can be defined as anything that alters the equilibrium (or homeostasis) of the body and which requires adaptation to maintain this equilibrium. A state of stress is defined as a physiological disturbance imposed by a stressor which is associated with suffering and mental distress, or the biological response resulting when an individual perceives a threat to its homeostasis (Moberg, 2000). Stress can be a normal and adaptive response to a change in the environment. However, if the stress

is severe or prolonged, homeostatic responses may be inadequate and pathological behaviours and disease processes can result.

Negative stress can result in emotional responses in an animal. Fear and anxiety are often used interchangeably, but they are not the same. Specifically, fear is an *emotional response* resulting in a *collection of behaviours* that occur in a direct response to threat (Duncan, 1993) and/or perceived danger (Boissy, Terlouw and Le Neindre, 1998). Normal fear is adaptive and transient in nature. Anxiety is the *emotional state* resulting from an animal being exposed to situations with a real or perceived threat, such as in novel situations or where some part of the environment may predict a negative outcome, i.e. it is anticipatory (Massar et al., 2011; Tynes, 2014). Both responses can be a normal reaction to an environment depending on the context. An anxiety disorder is a medical problem and without treatment will worsen over time. With each exposure and subsequent behaviour, the neural pathways connected to the activity will strengthen, reinforcing the unwanted behaviour pattern. Extreme fear and anxiety will result in changes to both the emotional state and the physiological state of the animal.

Physiological responses to stress

Animals show both short-term and long-term physiological responses to challenging situations. The nervous system and the endocrine system are involved in communication and co-ordination both within an animal and between an animal and its environment.

Cues from the environment such as visual, olfactory and auditory cues cause messages to be sent via neurons in the form of nerve impulses. During short term responses to the environment, such as a sudden threat or emergency situation, the animal prepares for “fight or flight” by secreting adrenaline/epinephrine. Physiological signs of stress are associated with activation of the sympathetic nervous system (SNS) and hypothalamic-pituitary-adrenal (HPA) axis. When stress is perceived by the brain, the SNS triggers the release of adrenalin and noradrenalin and activation of sympathetic nerves in the body. The measurable responses include increased heart rate, respiratory rate, body temperature, sweating, trembling and release of glucose and free fatty acids in case the animal needs to fight or flee.

Stimulation of the HPA axis results in secretion of cortisol which causes changes in the body including similarities to activation of the SNS, such as increase in blood glucose levels. There are also more generalised responses to cortisol, such as changes in immune and reproductive system function. The SNS is involved in acute responses, whereas the HPA axis promotes longer term impacts, although this is also dependent on the frequency of the stressor. Sustained high levels of stress may result in adrenal exhaustion. This means that the levels of cortisol will be low, a state that is usually associated with low levels of stress in an animal. If there has been a sustained stressor and other signs indicate a poor welfare state a low cortisol level is likely to represent adrenal exhaustion.

In everyday veterinary practice, adrenalin and cortisol would not routinely be measured, but direct physiological responses are an effective method to evaluate the welfare of an animal. A decreased level of welfare as a result of negative stress results in:

- Increased heart rate
- Increased body temperature
- Increased respiratory rate
- Increased blood glucose
- Altered activity levels (increased or decreased)
- Sweating from paw pads
- Panting

Although physiological measures can be useful, there are problems associated with their use in welfare assessment. One of the problems is that obtaining the samples can be difficult and the process itself stressful for the animals. Obtaining the sample can itself influence the findings, for example, the activity of an animal may increase if it attempts to avoid handling. Changes in heart rate from increased activity cannot be distinguished from changes due to emotional responses. As well as the process of actually obtaining the measurements, the timing of the measurements is also important and can have a significant effect on the findings.

High levels of negative stress over a longer period may result in:

- Loss of body weight
- Increase in the proportion of body fat and decrease in proportion of body muscle
- Reduced immune function, with increased neutrophil to lymphocyte ratios
- Reduced reproductive function
- Cognitive impairment

Learning abilities, anticipation capacities, memory, and individual recognition, are different examples of cognitive abilities which are important to better manage welfare of animals. In the same way, changes in these abilities may occur due to sub-optimal conditions. Companion animals experience many factors that might affect their welfare; these include the social conditions, dietary factors, management and behavioural restriction. There are also welfare concerns over the way animals are trained. Many people who train animals do use appropriate reward-based methods. However, even so, a lack of understanding of learning theory may cause these techniques and methods to be used incorrectly. For example, if training signals are not clear, this can lead to confusion or frustration and the animal being unable to make the correct association between what is being asked of them and the reward. Breakdowns in training may lead to aversive and even inhumane techniques being used as frustration grows.

[Behavioural responses to stress](#)

Behaviour is often the expression of the animal's mental experiences and it can also reveal early health problems. Behavioural responses to challenging situations can also be short-term or long-term. Short-

term responses may be changes in posture or flight, whereas long-term responses may include the development of stereotypic behaviour or a reduction in normal behaviours.

The main advantage that behavioural assessment has over the physiological measures of welfare is that it is non-invasive, and assessment can be carried out without necessarily influencing the animals and their behaviour. Simple observations can determine any changes in posture, inability to carry out normal movements, avoidance of an aspect of the environment, flight, changes in the “normal” behaviour of an individual, lack of maintenance behaviours, such as grooming, and the performance of abnormal behaviour. As with physiological measures, knowledge of the natural behaviour of the animal is also required when using behaviour to assess welfare; for example, vocalisation by an individual of one species may be of more concern than vocalisation from another. Similarly, some species naturally freeze in response to a threat whereas others do not, and such a response would be of more concern in some species than others. Specific behavioural responses to negative welfare experience such as fear and stress may be shown.

Fear and stress are usually displayed as changes in body posture, activity levels and avoidance behaviours. If an animal finds a specific trigger to be a stressor then, if they are given the choice, they will tend to avoid it in the future.

While every animal will have its own individualised response to stress, there are four general patterns followed by companion animals:

1. **Flight** – a fearful dog or cat will often try to escape a situation by fleeing; this may be obvious by a sudden exit from the current environment, but also can be more subtle e.g. by moving behind the owner or under a table.
2. **Fight** – it is a common misconception that an aggressive dog or cat is not a fearful dog or cat. Aggression is just one of the ways a dog or cat can exhibit fear, and it is important for the welfare of the dog or cat to remember that if it is growling, snarling, lunging, barking, hissing, spitting etc., it is likely to be in a high state of fear or anxiety.
3. **Freeze** – Frozen dogs or cats will either stand very still or may move in what appears to be slow motion. This is not uncommonly seen in a veterinary setting where it can be mistaken for a compliant or well-behaved pet - whereas in fact it is terrified and frozen, thereby accepting of examination or manipulation.
4. **Fiddle/Fidget** - the fiddle or fidget response is a “fill in” behaviour or conflict behaviour. This is one of the most common fear or anxiety responses seen in dogs and cats and includes behaviours such as lip-licking when not hungry, yawning when not tired, scratching themselves when not itchy, visually scanning the room or shaking the coat as if wet. These behaviours are inappropriate or out of context relative to the animal’s situation. This is the companion animal equivalent of a person chewing their nails if nervous, or twirling their hair, or laughing in an inappropriate situation.

These signs are very similar, and indeed many overlap with the signs of pain. It is therefore important to recognise the difference, as not only will the management or treatment regimens instigated in

response to these behavioural signs differ, but they may also affect long-term outcomes such as anxiety and panic (Seksel, 2007).

In cats, two main styles of reacting to a stressor have been identified (Heath, 2008):

1. **Active responders:** typical behaviours in a situation of confinement include:
 - Often at front of enclosure;
 - Rear on hind legs in an attempt to climb;
 - Paws anyone passing enclosure;
 - Pacing;
 - Attention seeking vocalisation;
 - Follow owner at home;
 - Display aggressive behaviour;
 - May be destructive.
2. **Passive responders:** typical behaviours in a situation of confinement include:
 - Inhibition of maintenance behaviour, such as feeding and grooming;
 - Immobility, often attempting to hide;
 - No vocalisation, although may hiss or growl if approached;
 - Lack of interest in the environment.



Figure 7. Passive responders withdraw and avoid social interactions.



Figure 8. Active responders are often vocal and may attempt to paw at passers-by.

Active responders may benefit from providing more sources of stimulatory enrichment e.g. toys, feeding puzzles. Passive responders will benefit more from enrichments offering them a greater sense of security e.g. hiding places, shelving for climbing.

In dogs there are no similar models for how individual dogs will react, and each individual dog should be monitored carefully. For example, some dogs may respond by freezing, or shutting down, resulting

in a lack of interest in the environment, standing still, and decreased appetite. Other dogs may become aggressive or display fiddle behaviours such as shaking off as if wet, or scratching. As a baseline reference, it is important to know what the normal or typical behaviours of any individual dog are, and owners may be in the best position to inform the veterinarian when there has been a change in the dog's normal behaviour.

In order to understand animals and their emotions, it is necessary to be able to read and recognise their body language. The traffic light system is commonly used to evaluate body language and to decide whether to proceed with any examination of the dog or cat.

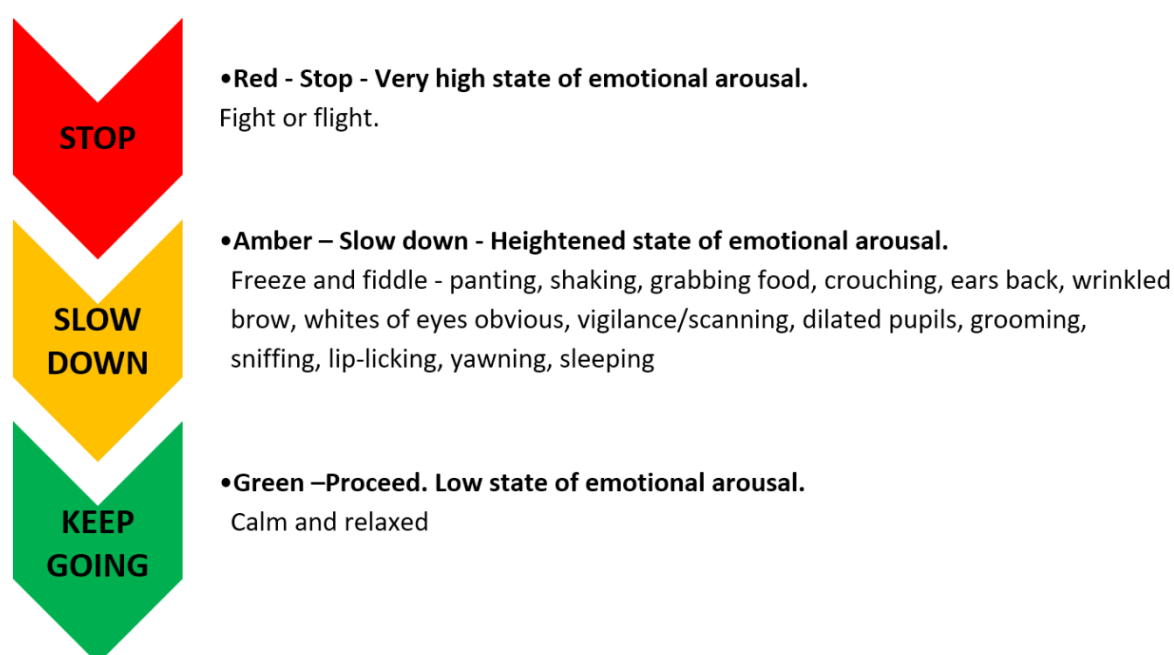


Figure 9. Traffic light system for assessing the animal's emotional state

When assessing welfare in individual animals, a combination of both physiological and behavioural measures should always be used. The American Association of Animal Hospitals (AAHA) has produced **Canine and Feline Behavior Management Guidelines** as part of a Behavior Management Toolkit, providing a useful clinical resource for veterinary practitioners (Hammerle et al., 2015).

Pain and Behaviour

The definition of pain used by the International Association for the Study of Pain (IASP) is “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage” (Merskey and Bogduk, 1994; IASP, 2018). Pain is both a psychological and physiological experience and therefore the subject is both complex and controversial.

Pain is highly aversive and something that an animal tries to avoid. It may be acute, chronic, localised, generalised, physical, emotional, adaptive, or maladaptive and may arise due to tissue damage

(nociceptive), tissue inflammation (inflammatory) or nerve damage (neuropathic). An individual may experience several types of pain concurrently.

The behavioural signs of pain may be overt or covert and vary with species, gender, age, previous experience as well as the current situation in which the animal finds itself. This adds to the difficulty in interpreting how pain affects animals. It has been estimated that from 17% to 41% of the human population in industrialised countries suffer either acute or chronic pain (Blyth et al., 2001; Tsang et al., 2008). It is not known what percentage of the domesticated animal species suffer from pain. One way that pain is commonly recognised in animals is by a change in their behaviour. In fact, a change in behaviour is often the first indication that an animal is unwell.

If using behaviour as an indicator of pain it needs to be recognised that behavioural responses are complex. A behavioural response involves not only what an animal does but also when, how, where and why it exhibits the behaviour. Behaviour should never be considered in isolation but always in the context in which it occurs. There are individual (as well as species) differences in how animals respond to pain and these are in part due to the genetic variation in such factors as number, distribution and morphology of opioid receptors (Janicki et al., 2016; Landau, 2006). In humans, research has indicated that biological sex and hormonal status may affect both pain responses and pain-relieving interventions (Paller et al., 2009; Bartley and Fillingim, 2013). Biological sex has also been shown to have an effect in non-human species and age has also been implicated (AAHA, 2018). Males and females also differ in their response to stress, which may be a cause of psychological as well as physical pain (Kudielka and Kirschbaum, 2005). There are also marked species-specific differences in behaviour and how they respond to pain and stress (Paul-Murphy et al., 2004). For example, inter-species variation such as predator versus prey species differences are markedly different but intra-species variation is also great (Paul-Murphy et al., 2004; Seksel, 2007).

An individual's previous experiences of pain or stress as well as its species therefore may temper the behavioural responses exhibited. Previous exposure to noxious or stressful stimuli and the outcome of that experience will affect the behaviour exhibited (Seksal, 2007).

Thirdly, the animal's immediate and current environment or situation will also affect how a behaviour may be expressed. For example, the presence or absence of others (conspecifics as well as members of other species), familiar or unfamiliar surroundings, the weather, novel stimuli, all play a part in determining not only which behaviours are exhibited but also the duration and frequency of the behaviour.

[Recognition of animal pain](#)

How people recognise the actuality and degree of pain perception in animals will be (to some degree) affected by the society in which they live, the culture in which they were raised and the attitudes of their community. Additionally, in each of these areas the individual's knowledge of pain and their expectations will also affect this perception.

Can we assess the level of pain by observing behaviour?

Any change in an animal's behaviour may be the first indication that an animal is experiencing pain. To what degree this is reflected as the true level of pain remains to be seen, however, it is the best indication we have for routine use in the clinical setting. There are both validated and non-validated measures that can be used for pain assessment in cats and dogs; for example, the Glasgow composite short form pain scale (Reid et al., 2007), Helsinki Chronic Pain Index (HCPI) (Hjelm-Björkman, Rita and Tulamo, 2009), the UNESP-Botucatu multidimensional composite pain scale (MCPS) (Brondani et al., 2013), Canine Brief Pain Inventory (Canine BPI) (PennCHART, 2013) and the Colorado State Pain Scale (Mich et al., 2010).

Conclusion

The Five Animal Welfare Needs is a simple but comprehensive framework that can be used when evaluating the overall level of welfare of an animal. The pet owner is a useful source of information regarding any change in behaviour, which may be the first sign of a health problem negatively affecting welfare. When assessing each individual animal, a combination of physiological and behavioural measures of animal welfare are recommended.

Checklist

- ✓ Are you up to date with scientific advances in measuring and monitoring animal welfare?
- ✓ Are your staff members trained to monitor and manage the welfare of animals in their care?
- ✓ Are records kept to monitor and manage animal welfare in animals in the veterinary clinic?
- ✓ Are there activities that you could introduce to improve your capacity to measure and monitor animal welfare?
- ✓ Do you seek advice, formally or informally, from other external organisations regarding the latest developments in animal welfare monitoring and management?

References

AAHA (2007). *AAHA/AAFP Pain Management Guidelines for Dogs and Cats* / AAHA. [online] Available at: https://www.aaha.org/professional/resources/pain_management_2007.aspx [Accessed 26 Jun. 2018].

Animal Welfare Act 2006. [online] Available at: <https://www.legislation.gov.uk/ukpga/2006/45/contents> [Accessed 8 Jun. 2018].

Animal Health and Welfare (Scotland) Act 2006. [online] Available at: <http://www.legislation.gov.uk/asp/2006/11/contents> [Accessed 8 Jun. 2018].

Bartley, E. and Fillingim, R. (2013). Sex differences in pain: a brief review of clinical and experimental findings. Colvin L, Rowbotham DJ, eds. *BJA: British Journal of Anaesthesia*. 111(1):52-58. <https://doi.org/10.1093/bja/aet127>

Belshaw, Z., Asher, L., Harvey, N. and Dean, R. (2015). Quality of life assessment in domestic dogs: An evidence-based rapid review. *The Veterinary Journal*, 206(2), pp.203-212.

Boissy, A., Terlouw, C. and Le Neindre, P. (1998). Presence of Cues from Stressed Conspecifics Increases Reactivity to Aversive Events in Cattle: Evidence for the Existence of Alarm Substances in Urine. *Physiology & Behavior*, 63(4), pp.489-495.

Blyth, F., March, L., Brnabic, A., Jorm, L., Williamson, M. and Cousins, M. (2001). Chronic pain in Australia: a prevalence study. *Pain*, 89(2), pp.127-134. Heath, S. (2008). Common Feline Behavioural Problems. *Feline Medicine and Therapeutics*, pp.51-69.

Hammerle, M., Horst, C., Levine, E., Overall, K., Radosta, L., Rafter-Ritchie, M. and Yin, S. (2015). 2015 AAHA Canine and Feline Behavior Management Guidelines. *Journal of the American Animal Hospital Association*, 51(4), pp.205-221.

International Association for the Study of Pain (2018). *IASP Terminology - IASP*. [online] IASP-pain.org. Available at: <https://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1698> [Accessed 8 Jun. 2018].

Janicki, P., Schuler, G., Francis, D., Bohr, A., Gordin, V., Jarzembowski, T., Ruiz-Velasco, V. and Mets, B. (2006). A genetic association study of the functional A118G polymorphism of the human μ -opioid receptor gene in patients with acute and chronic pain. *Anesthesia & Analgesia*, 103(4), pp.1011-1017.

Kudielkaa, B. and Kirschbaum, C. (2005)., Sex differences in HPA axis responses to stress: a review *Biological Psychology* 69:113–132

Landau R., (2006) One size does not fit all: genetic variability of mu-opioid receptor and postoperative morphine consumption. *Anesthesiology* 105(2):235–237.

Kim, H., Mittal, D. P., Iadarola, M. J., & Dionne, R. A. (2006). Genetic predictors for acute experimental cold and heat pain sensitivity in humans. *Journal of medical genetics*, 43(8), e40-e40

Mellor, D. (2017). Operational Details of the Five Domains Model and Its Key Applications to the Assessment and Management of Animal Welfare. *Animals*, 7(12), p.60.

Merskey, H., and Bogduk, N. (1994) *Classification of chronic pain: Descriptions of Chronic Pain Syndromes and Definitions of Pain Terms*. Seattle: International Association for the Study of Pain Press, 1994: 210.

Mich, P., Hellyer, P., Kogan, L. and Schoenfeld-Tacher, R. (2010). Effects of a Pilot Training Program on Veterinary Students' Pain Knowledge, Attitude, and Assessment Skills. *Journal of Veterinary Medical Education*, 37(4), pp.358-368.

Moberg, G. (2000). Biological response to stress: implications for animal welfare. *The biology of animal stress: basic principles and implications for animal welfare*. CABl, pp.1-21

Paller, C., Campbell, C., Edwards, R. and Dobs, A. (2009). Sex-Based Differences in Pain Perception and Treatment. *Pain Medicine*, 10(2), pp.289-299.

Paul-Murphy, J., Ludders, J., Robertson, S., Gaynor, J., Hellyer, P. and Wong, P. (2004). The need for a cross-species approach to the study of pain in animals. *Journal of the American Veterinary Medical Association*, 224(5), pp.692-697.

PDSA (2018). *Your pet's 5 Welfare Needs*. [online] PDSA.org.uk. Available at: <https://www.pdsa.org.uk/taking-care-of-your-pet/looking-after-your-pet/all-pets/5-welfare-needs> [Accessed 8 Jun. 2018].

PennCHART (2013). *Canine Brief Pain Inventory (Canine BPI)*. [ebook] Philadelphia: University of Pennsylvania. Available at: <http://www.vet.upenn.edu/research/clinical-trials/vcic/pennchart/cbpi-tool> [Accessed 11 Jun. 2018].

PennCHART (2016). *The Canine Symptom Assessment Scale*. [ebook] Philadelphia: University of Pennsylvania. Available at: <http://www.vet.upenn.edu/research/clinical-trials/vcic/pennchart> [Accessed 10 Jul. 2018].

Reid J., Nolan A., Hughes J., Lascelles D., Pawson P. and Scott E. (2007). Development of the short-form Glasgow Composite Measure Pain Scale (CMPS-SF) and derivation of an analgesic intervention score. *Animal Welfare* 2007, 16(S): 97-104

Seksel, K. (2007). How pain affects animals. Proceedings of the Australian Animal Welfare Strategy Science Summit on Pain and Pain Management. Melbourne, Australia.

Spitznagel, M., Jacobson, D., Cox, M. and Carlson, M. (2018). Predicting caregiver burden in general veterinary clients: Contribution of companion animal clinical signs and problem behaviors. *The Veterinary Journal*, 236, pp.23-30.

Tsang, A., Von Korff, M., Lee, S., Alonso, J., Karam, E., Angermeyer, M., Borges, G., Bromet, E., de Girolamo, G., de Graaf, R., Gureje, O., Lepine, J., Haro, J., Levinson, D., Oakley Browne, M., Posada-

Tynes, V. (2014). *The physiologic effects of fear*. [online] dvm360.com. Available at: <http://veterinarymedicine.dvm360.com/physiologic-effects-fear> [Accessed 11 Jul. 2018].

Villa, J., Seedat, S. and Watanabe, M. (2008). Common chronic pain conditions in developed and developing countries: gender and age differences and comorbidity with depression-anxiety disorders. *The Journal of Pain*, 9(10): 883-891.

WSAVA (2018). *Global Nutrition Guidelines: Resources and Statements*. [online] Available at: <http://www.wsava.org/Guidelines/Global-Nutrition-Guidelines> [Accessed 8 Jun. 2018].

Chapter 3: Welfare needs surrounding the veterinary visit

General

Veterinary methods, capabilities and infrastructure vary significantly throughout the world. Variances and differences may occur due to availability of resources, educational backgrounds, culture, socio-economic realities, community demands and/or societal expectations. However, despite varying veterinary circumstances and varying veterinary practices, the welfare needs of animals remain constant.

Veterinarians have an ethical responsibility to use their training and abilities to benefit their animal patients, other animals and society, and to continually improve and build on their existing skills and competencies. These obligations and responsibilities are often enshrined in various veterinary declarations, such as the WSAVA global oath (WSAVA, 2014).

One of the principle precepts of medical and veterinary ethics is “do no harm”. This principle must be considered before initiating any veterinary intervention such as surgery, physical or pharmaceutical treatment, or other procedure is undertaken. In some instances, doing nothing may be beneficial and in the best interest of the animal; in other circumstances, the lack of intervention itself may be harmful.

Veterinarians and the veterinary healthcare team need to attain and maintain a high level of competency to be able to recognise, prevent, diagnose, and appropriately treat and address conditions that may adversely affect their animal patients’ health and welfare needs, and thus the animals’ well-being.

Why is animal welfare important during the veterinary visit?

Maximising animal welfare for our veterinary patients allows for improved clinical and surgical outcomes, and improved veterinarian-patient-owner relationships. Conversely, stress, fear, anxiety and/or pain in our animal patients can have profound clinical effects physically and psychologically.

For example:

- Fear, pain and discomfort can lead to aggressive behaviours being exhibited by dogs and cats, making them difficult to handle, more likely to be difficult to treat in the clinic or to be abandoned by their owner.
- Fear, pain or discomfort causes an increase in circulating levels of the stress hormone, cortisol. Cortisol stresses the immune system and inhibits recovery from illness or surgery.
- Animals that are stressed with increased levels of circulating cortisol and noradrenaline may have misleading blood work and increased risk of being misdiagnosed with diseases such as diabetes.

- Higher doses of anaesthesia and analgesia are often required in stressed versus unstressed animals, and this can increase the risk of adverse outcomes.
- Pain or discomfort can sensitise the central nervous system and lead to more severe pain responses from the animal during clinical procedures (“wind-up”).[†]
- Wind-up is a common cause of elevated or protracted post-operative pain but can be avoided by pre-emptive analgesia and appropriate post-operative pain management.

Assessing animal welfare using the Five Animal Welfare Needs

1. The need to be protected from pain, suffering, injury and disease

Cats and dogs are sentient beings who have “the ability to feel, perceive or experience subjectively” and are not only capable of feeling pain and distress, but are also able to experience positive emotional states such as pleasure or comfort, and conversely negative emotions such as anxiety and fear (NZVA, 2018).

It is the responsibility of the veterinarian to not only to treat injury, disease and physical pain, but also to relieve pain and suffering caused by any negative emotional states. Possible causes of negative emotional states in the clinic should be avoided or minimised.

WSAVA Recommendations:

- With any veterinary intervention, consider the potential for creating - and accordingly the pre-emptive steps to mitigate - unpleasant experiences. Animals need to be routinely monitored for physical or behavioural signs of stress, frustration, fear, pain or ill-health. Preventative action needs to be taken to avoid triggers generating signs of negative emotional and physical states.
- Veterinary procedures should not be performed within visual or auditory range of other animals as it may lead to unnecessary stress. Similarly, olfactory stressors should be avoided (Lloyd, 2017).
- Medical and surgical interventions and husbandry practices must be assessed for the potential of causing injury or harm. Pre-emptive steps must be taken to mitigate the risk of injury where possible e.g. during handling, transport. Hospitalisation facilities must be designed to minimise the risk of injury both through interaction with, and exposure to, enclosure materials.
- A program of curative and preventive veterinary medicine must be provided by appropriately qualified and experienced veterinary staff at suitable times and intervals. Facilities to handle, restrain, examine, treat and isolate animals should be provided. All facilities should be easy to clean and disinfect. Behavioural and psychological health must be considered alongside physical health to ensure provision for all aspects of good animal welfare. Comprehensive veterinary records must be kept, which are to contain complete and up-to-date records on all aspects of each individual animal’s (and if appropriate, group of animals’) health and welfare.

[†] Wind-up = repeated or high-intensity stimulation of C-fibre nociceptors leading to central sensitisation of spinal neurons with a resultant increase in perceived pain intensity.

- The condition, health and behaviour of all veterinary patients (inpatient and outpatient) should be checked at suitable time intervals by the person(s) in direct charge of their care, consistent with avoiding unnecessary stress or disturbance. Objective measures must be used when assessing pain and welfare for each animal seen by the clinic.
- All staff should be trained in safe and humane handling and restraint of cats and dogs. Gentle and careful handling will avoid unnecessary discomfort, injury or stress. Use of punishment must be avoided. If the animal is highly stressed during handling, if the procedure is not critical then it should be left alone to recover and try again. If the procedure needs to be performed, then suitable sedation and/or anaesthesia should be supplied.
- A euthanasia policy in each clinic is useful for decision making (e.g. Oregon State University Euthanasia Protocol, 2011; DVM360, 2007). Only humane methods must be used should euthanasia be necessary. Methods will depend on availability of restraint and drugs in each country; refer to Humane Euthanasia Overview in the **WSAVA Pain Guidelines** for recommendations (WSAVA, 2014).
- Good hygiene and biosecurity must be implemented to prevent the spread of contagious diseases.
- As much as possible, painful interventions should be avoided, or if necessary, must be performed with appropriate analgesic protocols (recognition of signs of pain or pain assessment, prevention and relief of pain). Refer to **WSAVA Pain Guidelines** (WSAVA, 2014).
- Do not leave the animal unattended in any situation or period of time that may cause it distress or potential injury.

How to implement in your clinic: (what to do and what not to do)

- Veterinary staff to review definitions of pain and suffering (see [glossary](#)), and diagnostic and prevention strategies.
- Develop (preferably written) protocols on how to minimise pain and suffering in patients. See the **WSAVA Pain Guidelines** (WSAVA, 2014) and **WSAVA pain management protocols** (WSAVA, 2018).
- Introduce routine use of Pain Scales
 - Examples of validated pain scales:
 - ➔ **Dogs** - short-form Glasgow Composite Measure Pain Scale (CMPS-SF) (Reid et al., 2007), Helsinki Chronic Pain Index (HCPI) (Hielm-Björkman, Rita and Tulamo, 2009) and Canine Brief Pain Inventory (Canine BPI) (PennCHART, 2013).
 - ➔ **Cats** - Glasgow Composite Measure Pain Scale–feline (CMPS-Feline) (Calvo et al., 2014 and WSAVA, 2015) and the UNESP-Botucatu multidimensional composite pain scale (MCPS) (Brondani et al., 2013).
 - Examples of non-validated pain scales:
 - ➔ **Dogs** - Colorado State University Canine Acute Pain Scale (Mich et al., 2010)
 - ➔ **Cats** - Colorado State University Feline Acute Pain Scale (VASG, 2006).
- Safe handling techniques, training and written protocols should be developed. Training options include low-stress handling techniques and on-line programs e.g. Low Stress Handling® (Lowstresshandling.com, 2018), Fear Free Pets (2018)

- Develop (written) disease prevention protocols: personal hygiene, facility and fomite sanitation, isolation procedures for appropriate diseases.
- Training on general dog and cat behaviour and recognising body language. See Mobile application software *Dog Bite Prevention Strategy* (Rivard, 2014).

2. *The need for a suitable environment*

Patients should be provided with an environment that meets their species-specific physical and behavioural needs. This should include appropriate space for the individual animal and adequate resources to prevent stress. Environments must provide protection from unsuitable environmental challenges e.g. inclement weather, humidity, noise, heat and cold as appropriate. All patients should be provided with appropriate access to food, water, bedding and toileting facilities.

WSAVA Recommendations:

- The temperature, ventilation, lighting (both levels and spectral distribution), humidity, and noise levels of enclosures must be suitable for the comfort and welfare of the particular species of animal at all times. All housing must protect against extremes of sunlight, heat, draughts and cold, and provide appropriate humidity.
- Kennels, cages and hospitalisation facilities need to be in an appropriate size for each animal. Animals should be able to stand up and turn around naturally, able to stretch themselves. Suitable dogs should be taken out on a leash if they are kept in kennels or cages for extended periods of time to allow toileting (and avoid elimination in the confinement area), to exercise or if they are exhibiting signs of stress or distress.
- The veterinary facility, rooms, kennels, cages, wards and hospitals must not present a hazard to animal patients (or humans) and need to be well-maintained. Animal holding areas need to be secure, escape proof, in good condition and clean.
- The condition of every animal under veterinary care is assessed at least twice daily.
- Cleanliness of the veterinary environment is paramount. However, routine cleaning and maintenance procedures, should not be intrusive, not cause undue stress and allow undisturbed rest.
- Consideration must be given to the special needs of pregnant and newly-born animals, and other conditions such as mobility issues, contagious diseases and mental health issues such as separation anxiety.
- Cats and dogs specific needs – examples: species (and individuals) need to be separated (unless with a familiar and requested companion), visual barriers, separate sleeping, eating and toilet areas with appropriate litter box and litter material for cats. Cats benefit from perching and hiding places (see Figure 10).
- Suitable carriers and mode of transport for dogs and cats – in terms of safety, comfort, least stressed.
- Consider type of flooring, wall paint colour, smell and noise throughout clinic areas. Flooring must be non-slip yet easily disinfected.



Figure 10. Cats benefit from perching and hiding places.

How to implement in your clinic: (what to do and what not to do)

- Cats should be kept separated from dogs and other animals as much as possible from the beginning to the end of veterinary visit – ideally cats should have separate waiting and consultation rooms, wards and hospital areas from dogs and other animals. Separation components should consider visual, auditory, olfactory and tactile factors. Elevating cat carriers on raised shelves or chairs in the waiting area can be helpful. See **AAFP and ISFM Environmental Needs Guidelines** (Ellis et al., 2013)
- Eating and drinking areas should be in a separate location from their sleeping and toilet areas for all hospitalised animals. Animals that have mobility problems may have their food and water bowls near their resting areas
- Encourage habituation to carriers and leashes. Owners should be advised how to habituate their dog or cat to a carrier or the car using positive reinforcement training, to ensure the pet does not have negative associations with lead up to, and actual transport.
- Use of appropriate anxiolytic medication when necessary. Evaluate if transportation is necessary (or bring the veterinarian to the animal).
- Minimise noise, odours, colours that induce stress. Consider the use of synthetic pheromone analogues and other calming aids such as music, natural remedies (e.g. lavender) which also may help calm staff/humans. Avoid using aversive agents or substances.
- Use of subdued lighting (dimmer switches) in all areas of the hospital to minimize “bright light” related stress (Pasternak and Merigan, 1980).
- Consider ramps instead of stairs to improve access for both patients and clients.
- Minimise time animals are in a stressful area. Move animals into a less stressed environment as soon as possible (e.g. quiet room for cats). Assess whether presence of owners is raising or lowering the levels of stress for individual animals.

3. *The need for a suitable diet*

A suitable diet comprises not just nutrition adequate to support an animal's physical health, but also consideration of food delivery appropriate to meet species-specific behavioural needs and psychological health. Also, the act of feeding is rarely just for sustenance, as the act of feeding brings the human and patient in closer proximity and increases the feelings of nurturing and the bonding effect for both (Shearer et al., 2010). The route of nutritional support (enteral vs parenteral), the method of food presentation, the frequency and timing of food, and the patient's species-specific nutritional requirements and behaviour must be considered. For example, feline patients are hyper-carnivorous and obligate carnivores. Specific attention should be paid to neonatal, young, juvenile and geriatric patients. Drinking water must be clean, fresh and permanently available to all patients within the veterinary clinic. Specific food and/or water restriction may be required in some cases e.g. pre-surgery or in specific medical conditions.

WSAVA Recommendations:

- Food provided must be presented in an appropriate manner and frequency considering the behaviour and ecology of the species. It is important to ask diet-related questions of the owner: pets may be habituated to a special formulation (dry vs. canned vs. semi-moist).
- Food provided must be of the nutritive value, quantity, quality and variety appropriate for the species, and for the condition, age and physiological, reproductive and health status of the individual animal.
- Sufficient fresh, clean drinking water must be available always for all animals requiring it.
- Food restrictions may be required, for example prior to surgery or other procedures. However, a return to oral feeding should be encouraged as soon as possible after any fasting, veterinary procedures, or recovery from illness. Food should not be restricted for more than 3 hours in juvenile patients.
- Specialist diets may be required for some diseases, for example, gastro-intestinal disease, pancreatitis, renal disease, amongst others. Also, specialised or individualised diets for life-stages (e.g. post-weaning, adult, geriatric), reproductive status (pregnancy, lactation), lifestyle (sedentary, working etc) need to be made available.
- Supplies of food and water/liquids must be kept and prepared under hygienic conditions, in particular:
 - food and water/liquids must be protected against dampness, deterioration, mould or from contamination by insects, birds, vermin or other pests;
 - supplies of perishable food and water/liquids, other than those brought into the premises fresh daily, should be kept, where appropriate, under refrigeration;
 - preparation of food should be undertaken in a separate area;
 - staff should be trained in and instructed to follow strict hygiene practices in the preparation of food, having due regard to the risk of cross contamination between equipment, utensils and surfaces;
 - receptacles for animal food and water/liquids must not be used for any other purpose; food, water and other drinking receptacles, where used, must be regularly cleaned.

- The natural behaviour, particularly social aspects, physiologies and ecologies of the animals should be considered when offering food and water/liquids. For example – dogs should be fed separately to avoid fights, food and liquid containers designed to allow safe, unimpeded access for various phenotypes (e.g. brachycephalic dogs and cats). Fearful pets, especially but not exclusively cats, may not eat if not able to hide or feel hidden whilst eating.
- Food and water/liquids areas should be separate from sleeping and toileting areas.
- Non-nutritional feeding – use of treats e.g. during examination: consider client's and animal's needs, circumstance of feeding. Factor in caloric intake when considering advising on dietary requirements/calorific intake when giving treats in clinic. Food, water and other drinking receptacles, where used, must be regularly cleaned.
- Nutrition for the hospitalised patient needs to be customised to allow for species, breed, disease status, and the ability to eat.

How to implement in your clinic: (what to do and what not to do)

- Have clean drinking water accessible in all areas including the waiting room. Use of a dispenser or separate bottles for water/liquids and individual drinking bowls are useful to stop disease transmission.
- Treats are commonly used in consultation rooms and other suitable areas to promote positive experiences for animals and reduce stress. The use of treats should be done with permission from owners (e.g. to gain information on dietary issues or allergies, cultural requirements) and be appropriate for species/individual. Consider the caloric intake if animal is on a diet. Pet owners can provide information regarding preferred treats and should be encouraged to bring their own treats to the veterinary clinic.
- Be prepared to discuss nutrition if an animal is presented in an inappropriate body/muscle condition (over/underweight), even if the owner has not raised the issue. Obesity is not only a health and welfare concern, but a potential ethical problem and will be discussed further in [Chapter 4](#).
- Eating and drinking areas, if possible, should be in a separate location from the sleeping and toileting areas for all hospitalised animals. Animals that have mobility problems may have their food and water/liquids bowls nearby their resting areas (see Figure 11).
- Hospitalised animals should be fed diets that meet their nutritional requirements. If medically appropriate and the diet suitable, the owners can supply the pet's usual diet to avoid abrupt diet change.
- A period of pre-anaesthesia fasting is indicated for animals before to their procedure. While food maybe withheld for up to 12 hours, allowing half a normal meal up to 3 hours prior to anaesthesia significantly decreases the incidence of gastro-oesophageal reflux intraoperatively (Savvas, Raptopoulos and Rallis, 2016). Any fasting protocol may be modified at the veterinarian's discretion e.g. if medications or insulin are required.

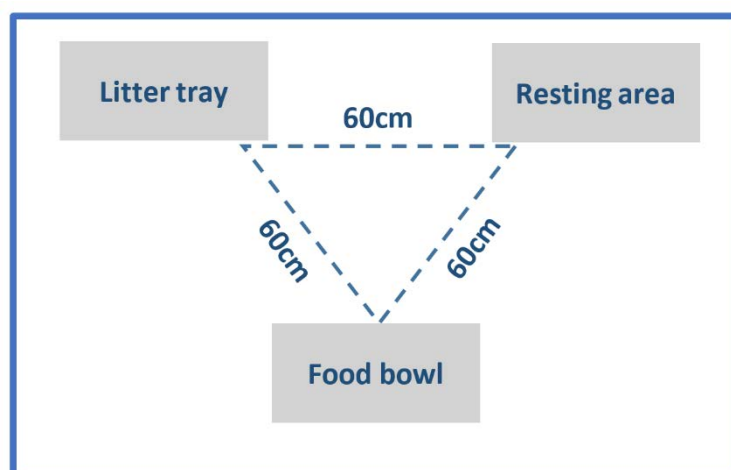


Figure 11. For cats in wards/hospital cages, minimum recommended distances between litter tray, resting place, and food container. Adapted from *Guidelines for Standards of Care in Animal Shelters*. (Attard et al., 2013).

- Do not use expired, spoilt or contaminated food/water. Dispose of expired, spoilt and contaminated food immediately to prevent accidental usage. Food should not be left in bowls and must be changed regularly/appropriately to prevent spoilage.
- Be aware of cultural sensitivities. Certain foods and/or food preparation techniques may not be acceptable to owners for feeding to their pets for cultural, religious or personal reasons.
- The WSAVA Global Nutrition Committee has clinic-focused toolkits and a variety of resources that provide step-by-step information for common nutritional needs of dogs and cats for practitioners (WSAVA, 2011).

4. The need to be housed with or apart from other animals

From the veterinary clinic perspective, issues to consider are species-specific ecology, separation of predator and prey species for both inpatients and outpatients, and longer-term in-patients. In-patients are often confined for extended periods and environmental provisions need to be made ensure their welfare. Human-animal interactions should also be monitored to minimise any negative interactions and promote positive relationships between staff and patients.

WSAVA Recommendations:

- Cats should be kept separated from dogs and other animals as far as possible from the beginning to the end of the veterinary visit. Ideally cats should have waiting and consultation rooms, wards and hospital areas that are separate from dogs and other animals. Separation components should consider visual, auditory, olfactory and tactile factors.
- Consider the use of synthetic pheromone analogues and other calming aids.
- Assess the degree of veterinary contact with animals beyond the minimum required for treatments/cleaning/feeding etc.; evaluate if the individual animal enjoys contact with (unfamiliar) humans.

- Avoid inter- and intra-species aggression. Educate on how to avoid dog bites and cat bites/scratches with staff, clients, children etc. Staff must be trained to understand the warning behaviours to avoid escalation of aggression. Use client education/warning posters. Avoid potential conflict (e.g. waiting room areas) by separating animals that are stressed and fearful.
- Have an awareness that animals associate aversive/rewarding events with specific humans. Promote positive and avoid negative perceptions of the presence of staff members that deal directly with the hospitalised pet.
- Pet owner presence during procedures (including euthanasia) – assess if it is suitable for the animal and the owner.
 - It is understood that some pets are calmer when restrained or in the presence of their owners, thus if the risks are accepted on all sides, this may be the least stressful way to proceed with some procedures such as drawing blood and physical exams
 - Contrary to the above, other pets are more fractious or protective with owners or owners are not able to adequately restrain them safely, in which case it is safer and more humane for the patient to be worked on without the owner present. This often tends to be a negotiation and educational moment.
 - Euthanasia procedures to involve the owner and rest of family require a discussion beforehand on what to expect and what is in the best interest of the patient, owner, family and staff.
 - More involved medical, surgical and dental procedures usually involve anaesthesia, and usually there are no welfare reasons for the owner to be present. Additionally, an owner's presence may affect staff and doctor efficiency and focus, important to the successful outcome (and ultimately the welfare) of pet.

How to implement in your clinic: (what to do and what not to do)

- Some animal house-mates may offer each other social/emotional support during hospitalisation/boarding if housed together.
- Some patients may be accustomed to significant human handling/holding and may benefit from more extensive staff interactions.
- Hospitalised pets benefit from regular owner/guardian visits. Familiar human contact may decrease feelings of isolation, encourage engagement with the surroundings and improve general demeanour. Animals may be more amenable to handling and inappetent pets may be encouraged to take food. The benefits of the visit should be assessed and re-assessed on an individual basis. While the presence of owners can provide positive welfare changes, in some animals this may also increase distress and anxiety related to post-visit separation.
- Conversely, some individual patients may benefit from a more isolated environment and minimisation of visual and auditory cues.
- **All animals benefit from good nursing care**; however excessive or unnecessary contact with shy, very fearful animals or those unaccustomed to human contact may prove stressful and should, as far as possible, be avoided.
- Consider the animals' perspective in all areas of the veterinary clinic (JMICAWE, 2015).

5. *The need to be able to exhibit normal behaviour patterns*

Animals must be allowed the opportunity to express normal or species-typical behaviours that are not incompatible with the veterinary visit. Husbandry routines and environmental provisions should be planned to allow for the natural and behavioural needs of the animals, and enrichment and husbandry practices followed to promote species-specific behaviours to prevent behavioural frustration.

It may be unavoidable that the animal patient entering, being examined or treated at a veterinary clinic display various degrees of non-standard behaviours. The veterinary visit is often stressful, and the facility is usually far removed from the animal's home environment. To help lessen the stress of the visit and potential negative behaviours, measures need be considered to minimise that might be affected by odours, sounds/noise, light, facility layout/crowding, and treatment protocols, including restraint and surgical procedures

WSAVA Recommendations:

- Cats feel more secure in an elevated area and appreciate ability to hide (see Figure 10). Cats also need to scratch. Cages should be able to provide for these normal and species-typical behaviours.
- Enrichment for dogs and cats should be considered if they are likely to stay in the clinic for any extended period.
- Exercise is important for all animals, if their medical condition allows it. Provide them with exercise when suitable in a safe and secure location.
- Animals communicate through scent and may leave markings/scents such as stress pheromones that can cause stress to other animals. Areas should be cleaned quickly and thoroughly and consider use of synthetic pheromone analogues.
- Try to provide an environment where the animal can rest undisturbed when it wants to. Very young, older as well as unwell animals may need more rest.

How to implement in your clinic: (what to do and what not to do)

- Providing a simple box for cats can give them the ability to perch (elevated areas) and hide if they choose to. Cardboard scratching posts can be home-made, so inexpensive, and easily provided in cat cages.
- Dogs can be provided with rugs and toys.
- Cleaning and feeding should be performed in a routine predictable for the animal. If possible, the same staff should interact with and feed the pet every day, to encourage the association of rewarding events with specific individuals. Following this, staff members needing to provide veterinary care or treatments that may be unpleasant/aversive from the animal's perspective should not be the primary provider of comfort / food etc.
- Consider providing enrichment and encourage play behaviours. Animals can be provided with rugs and toys, given supervised play time and use of food puzzles (Lloyd, 2017).

- Cheap food enrichment toys for cats and small dogs can be made using cardboard toilet-paper rolls with dry food placed inside and the ends pushed in. In dogs, use feeding enrichments (e.g. KONG™ stuffed with food, snuffle mat) to allow natural behaviours.
- Allow animals their own time to adapt and explore.

Welfare needs during stages of the veterinary visit

- Pre-arrival:
 - Standard veterinary clinic protocol of recommendations for best preparation of pets based on level of individual stress:
 - Restraint training and habituation to cages, crates and modes of transport.
 - Transport and transport kennels – use of appropriate cages or crates, avoid transport stress/distress (temperature extremes, noise etc). Use familiar toys and treats to reduce stress and anxiety.
 - Pre-arranged use of anxiolytics or herbal calming agents for anxious or fractious animals.
 - Pre-visit sedation is **not** advised.
 - Triage pet behaviour issues by front desk staff at time of phone or digital appointment (and again on arrival).
 - Pre-visit and pre-examination information and suggestions for owners available online or as hardcopy handouts.
- Receiving area / Waiting room:
 - Ideally, separation of dogs from cats and other species.
 - Ensure a calming environment: seating, calming music, sound-dampening of sounds from other parts of hospital, odour control & hygiene, home-like setting, dimmable lighting, good ventilation, cleanable but textured flooring.
 - Trained staff to triage levels of stress / distress upon arrival. Early recognition of stress/distress can allow for early intervention.
 - Communicable disease pets separated or kept away from other animals until appropriate room available.
- Consultation or examination Room:
 - Ideally dedicated dog and cat rooms.
 - Environment: dimmable lights, calming music, colour palate for relaxation, clean odours, clean floors, sound dampening, adequate ventilation.
- Diagnostic procedures:
 - First, do only necessary procedures.
 - Appropriate restraint techniques, chemical restraint if needed for patient and staff safety.
 - Continuous staff training on above.
- Surgical and non-surgical procedures:
 - As in above, only necessary treatments or surgeries for health and safety of the patient.

- Use of appropriate anaesthesia and analgesia as available (refer to **WSAVA Pain Guidelines**).
- Pre- and post-operative / procedural monitoring for pain, comfort, hygiene.
- Hospitalisation, kennelling and housing:
 - Cleanable, secure, and safe housing.
 - Routine examination of the animal area and cleaning of bedding and patient.
 - Allow patients to stand and turn around if possible and appropriate.
 - Patients should be walked routinely (dogs).
 - All patients need clean bedding that is changed as often as required.
 - If appropriate for the species, clean litter with minimum once daily changes.

Handling and restraint

Many options for training and sources of information are available including:

- Low-stress handling techniques and on-line programs e.g. Low Stress Handling®, Fear Free Pets (2018).
- **AAFP and ISFM Feline-Friendly Handling Guidelines** (Rodan et al., 2011)
- **AAFP and ISFM Feline-Friendly Nursing Care Guidelines** (Carney et al., 2012)

Record keeping

Accurate documentation of all animal patients is imperative in the veterinary clinical setting. The pet's clinical and other examinations/investigations, treatments and responses, both positive and negative, should be accurately recorded in a timely manner. Also details of the pet's responses to handling, medications and housing are necessary to provide sufficient detail to ensure accurate follow-up as well as allow another clinician to assume the management of the case if required.

Additionally, all discussion of treatment options and informed consents need to be fully documented. This is not only to comply with professional (and often legal) obligations, but to demonstrate that the health and welfare needs of all veterinary patients are being considered at all times.

Workplace Safety and Health

Veterinarians and the veterinary team are exposed to many potential risks to health and safety in the clinic setting. Physical (e.g. radiation exposure, slips, trips and falls); biological (e.g. zoonotic and infectious disease); chemical and waste (e.g. cytotoxic and pharmaceutical waste, sharps) hazards are found in the veterinary and many other healthcare professions (AVMA, 2018; WSHC, 2015). Psychological health and safety must also be considered.

Companion animal practitioners and their veterinary staff have additional unique challenges in occupational health and safety. From an animal welfare aspect, occupational health and safety in the veterinary clinic particularly relates to the handling and restraint of animals to minimise injury and stress to the handler(s) as well as the animal. The most common injuries to veterinary staff in the United States were animal bites and scratches (Gibbins and MacMahon, 2015; AVMA PLIT, 2017),

while in Singapore injuries caused directly by the veterinary patient and indirectly due to handling e.g. lifting and carrying, are most commonly reported (WSHC, 2011).

Animals in stress or pain can pose a risk to themselves and the surrounding people, veterinary staff, owners and bystanders. It is important to manage risks and create a safe work environment. If examining an animal at floor level, for example a larger dog, ensure that you have the dexterity and space to move out of harm's way should the need arise. Employ gentle handling techniques coupled with pharmaceutical intervention (anxiolytics, sedatives, analgesics) as soon as it is needed.

Checklist

- ✓ Are you and your veterinary staff aware of the health benefits to your patients by utilising protocols that reduce pain and suffering, fear and anxiety?
- ✓ Does your clinic refer to the Global Pain Guidelines produced by the WSAVA Global Pain Council?
- ✓ Does your clinic routinely use pain assessment scales or charts?
- ✓ Do you routinely use the nutritional assessment tools recommended by the WSAVA Global Nutrition Committee?
- ✓ Has your clinical team recognised the need to improve the facility to reduce inter-pet confrontation and stress and made any necessary adjustments?
- ✓ Do you routinely review appropriate and safe patient handling techniques?

References

Animal Welfare Act 2006. [online] Available at:

<https://www.legislation.gov.uk/ukpga/2006/45/contents> [Accessed 8 Jun. 2018].

Attard E, Duncan K, Firmage T, Flemming S, Mullaly K, Pryor P, Smrdelj M, Cartwright B, Rastogi T. (2013). *Canadian standards of care in animal shelters: supporting ASV guidelines*. Canada: Canadian Advisory Council on National Shelter Standards. 2013.

AVMA (2018). [online] Available at: <https://www.avma.org/KB/Resources/Reference/Pages/Workplace-Hazard-Communications.aspx> Accessed 26 Jun. 2018].

AVMA PLIT (2017). *Professional Liability Claims | AVMA PLIT*. [online] Available at: <http://www.avmaplit.com/plclaims/> [Accessed 26 Jun. 2018].

Brondani, J., Mama, K., Luna, S., Wright, B., Niyom, S., Ambrosio, J., Vogel, P. and Padovani, C. (2013). Validation of the English version of the UNESP-Botucatu multidimensional composite pain scale for assessing postoperative pain in cats. *BMC Veterinary Research*, 9(1), p.143; <https://doi.org/10.1186/1746-6148-9-143>

Calvo, G., Holden, E., Reid, J., Scott, E., Firth, A., Bell, A., Robertson, S. and Nolan, A. (2014). Development of a behaviour-based measurement tool with defined intervention level for assessing acute pain in cats. *Journal of Small Animal Practice*, 55(12), pp.622-629.

Carney, H., Little, S., Brownlee-Tomasso, D., Harvey, A., Mattox, E., Robertson, S., Rucinsky, R. and Manley, D. (2012). AAFP and ISFM Feline-Friendly Nursing Care Guidelines. *Journal of Feline Medicine and Surgery*, 14(5), pp.337-349.

DVM360 (2007). *Sample Euthanasia Protocol*. [online] DVM360. Available at: <http://veterinaryteam.dvm360.com/euthanasia-protocol> [Accessed 9 Jun. 2018].

Ellis, S., Rodan, I., Carney, H., Heath, S., Rochlitz, I., Shearburn, L., Sundahl, E. and Westropp, J. (2013). AAFP and ISFM Feline Environmental Needs Guidelines. *Journal of Feline Medicine and Surgery*, 15(3), pp.219-230.

Fear Free Pets (2018). *Veterinary Professionals | Fear Free Pets*. [online] Available at: <https://fearfreepets.com/veterinary-professionals/> [Accessed 11 Jul. 2018].

Gibbins, J. and MacMahon, K. (2015). Workplace Safety and Health for the Veterinary Health Care Team. *Veterinary Clinics of North America: Small Animal Practice*, 45(2), pp.409-426.

Hjelm-Björkman, A., Rita, H. and Tulamo, R. (2009). Psychometric testing of the Helsinki chronic pain index by completion of a questionnaire in Finnish by owners of dogs with chronic signs of pain caused by osteoarthritis. *American Journal of Veterinary Research*, 70(6), pp.727-734.

International Association for the Study of Pain (2018). *IASP Terminology - IASP*. [online] IASP-pain.org. Available at: <https://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1698> [Accessed 8 Jun. 2018].

JMICAW (Jeanne Marchig International Centre for Animal Welfare Education) (2015). *A Dog's Perspective*. [video] Available at: <https://www.youtube.com/watch?v=epjk32NcrIM> [Accessed 19 Jun. 2018].

Lloyd, J. (2017). Minimising Stress for Patients in the Veterinary Hospital: Why It Is Important and What Can Be Done about It. *Veterinary Sciences*, 4(4), p.22.

Lowstresshandling.com. (2018). *Low Stress Handling® University – The Legacy of Dr Sophia Yin*. [online] Available at: <https://lowstresshandling.com/> [Accessed 28 Jun. 2018].

Mich, P., Hellyer, P., Kogan, L. and Schoenfeld-Tacher, R. (2010). Effects of a Pilot Training Program on Veterinary Students' Pain Knowledge, Attitude, and Assessment Skills. *Journal of Veterinary Medical Education*, 37(4), pp.358-368.

NZVA (2018). *Sentience - New Zealand Veterinary Association*. [online] Nzva.org.nz. Available at: <http://www.nzva.org.nz/page/positionsentience/Sentience.htm> [Accessed 8 Jun. 2018].

Oregon State University (2011). *Euthanasia protocol*. [online] OSU. Available at: <http://128.193.215.68:12469/vth-policies/VTH/SA/AAHA%20Standards/PC59-Euthanasia-protocol.pdf> [Accessed 9 Jun. 2018].

Pasternak, T. and Merigan, W. (1980). Movement detection by cats: Invariance with direction and target configuration. *Journal of Comparative and Physiological Psychology*, 94(5), pp.943-952.

PennCHART (2013). *Canine Brief Pain Inventory (Canine BPI)*. [ebook] Philadelphia: University of Pennsylvania. Available at: <http://www.vet.upenn.edu/research/clinical-trials/vcic/pennchart/cbpi-tool> [Accessed 11 Jun. 2018].

Reid J., Nolan A., Hughes J., Lascelles D., Pawson P. and Scott E. (2007). Development of the short-form Glasgow Composite Measure Pain Scale (CMPS-SF) and derivation of an analgesic intervention score. *Animal Welfare* 2007, 16(S): 97-104

Rivard, G. (2014). *Dog Bite Prevention Strategy*. [Mobile application software] Quebec: Animal Connected Inc. Available at: <https://dog-bite-prevention-strategy-ios.soft112.com/modal-download.html> and <https://play.google.com/store/apps/details?id=com.animalconnected.dogbite>

Rodan, I., Sundahl, E., Carney, H., Gagnon, A., Heath, S., Landsberg, G., Seksel, K. and Yin, S. (2011). AAFP and ISFM Feline-Friendly Handling Guidelines. *Journal of Feline Medicine and Surgery*, 13(5), pp.364-375.

Savvas, I., Raptopoulos, D. and Rallis, T. (2016). A “Light Meal” Three Hours Preoperatively Decreases the Incidence of Gastro-Esophageal Reflux in Dogs. *Journal of the American Animal Hospital Association*, 52(6), pp.357-363.

Shearer P, Mus C, Mgt G. (2010) *Literature review: canine, feline and human overweight and obesity*. Banfield Applied Research and Knowledge Team.

VASG.org. (2006). [online] Available at: http://www.vasg.org/pdfs/CSU_Acute_Pain_Scale_Kitten.pdf [Accessed 25 Jun. 2018].

WSAVA (2011). *Global Nutrition Guidelines | WSAVA Global Veterinary Community*. [online] WSAVA.org. Available at: <http://www.wsava.org/Guidelines/Global-Nutrition-Guidelines> [Accessed 8 Jun. 2018].

WSAVA (2014). *Guidelines for Recognition, Assessment and Treatment of Pain*. [ebook] available at: http://www.wsava.org/WSAVA/media/PDF_old/jsap_0.pdf

WSAVA (2014). *Global Pain Council Guidelines | WSAVA Global Veterinary Community*. [online] Wsava.org. Available at: <http://www.wsava.org/Guidelines/Global-Pain-Council-Guidelines> [Accessed 30 Jun. 2018].

WSAVA (2014). *WSAVA Veterinary Oath*. [online] Available at http://www.wsava.org/WSAVA/media/PDF_old/WSAVA-Veterinary-Oath.pdf [Accessed 8 Jun. 2018].

WSAVA (2015). *Glasgow Feline Composite Measure Pain Scale: CMPS - Feline* [ebook] http://www.wsava.org/WSAVA/media/PDF_old/Feline-CMPS-SF_0.pdf

WSAVA (2018). *WSAVA Global Nutrition Committee FAQs and Nutrition Myths*. [ebook] available at: http://www.wsava.org/WSAVA/media/Documents/Committee%20Resources/Global%20Nutrition%20Committee/GNC-FAQs-and-Myths_1.pdf

WSCH Singapore (2011). *Workplace Safety and Health Checklist for Veterinary Clinics*. Workplace Safety and Health Council Singapore.

WSHC Singapore (2015). *Workplace Safety and Health Guidelines Healthcare* [online] Available at: https://www.wshc.sg/files/wshc/upload/infostop/attachments/2014/IS2014011300771/WSH_Healthcare_Guidelines.pdf Workplace Safety and Health Council Singapore. [Accessed 8 Jun. 2018].

Chapter 4: Ethical questions and moral issues

Recommendations

To confirm our commitment to the highest animal welfare standards, WSAVA calls on all veterinary associations to support and all veterinarians to promote:

1. the development of national or regional declarations emphasising a commitment to animal welfare and the requirement of professional ethical conduct as part of veterinary licensing.
2. Incorporation of training into veterinary ethical decision-making as part of veterinary education and professional development.
3. the regulation of unethical veterinary procedures which pose an unnecessary risk to animal welfare.

Ethics

Ethics concern the actions of humans and the values that guide those actions. There are different types of ethics that may impact a veterinarian's daily life. Professional ethics guide how veterinarians should act and behave to uphold the reputation of the entire profession. Societal ethics are a set of usually unwritten rules that guide the behaviour of people to enable them to live together as a community. Animal ethics reflects on human-animal relationships, how people view the use of animals, and thus influences human action and their behaviour towards animals.

Personal ethics may vary between individuals and will be influenced by many factors. Ethics may vary depending on the perceived category or use of the animal in terms of its role as a pest or vermin animal, a pet, or a livestock or production animal (Taylor and Signal, 2009). Human attitudes to animals are also influenced by phylogenetic distance, aesthetics and vulnerability (Serpell, 2004).

Differences in how people view the moral value of animals will lead to different perceptions of how humans should treat animals. These differences sometimes result in conflicting judgements of how people should treat animals, the actual needs of the animals, and the interests of the people involved can lead to ethical dilemmas.*

Animal welfare science and Animal Ethics

Animal welfare is concerned with the experiences of any animal, including its physical and psychological state. Animal welfare as a science uses various quantitative methodologies to help to determine the impact of human actions on the welfare of the animals under our care. For example, we may analyse the behaviours displayed by an animal or measure levels of serum stress hormones. However, animal welfare science only provides information on the physiological and behavioural

* Formally, an ethical dilemma as a concept is restricted to an unresolvable problem. In common usage however, the term is also frequently used when referring to ethical questions and moral problems.

responses of any particular animal under individual unique circumstances. It does not provide guidance on why we should treat any animal in a particular way. To ask questions on “why” we use animal ethics, which is a philosophical study on how we should treat and care for animals - personally, professionally and societally.

Animal ethical theories

There are four main groups of ethical theories relating to companion animals (Sandøe, 2016):

a. Contractarian

The basic concept behind contractarian view is that individuals enter a moral community through mutual agreements or contracts with each other. As animals cannot understand nor reason, they cannot enter into contractual agreements. Therefore, humans have no moral obligations towards animals and can treat animals as it best benefits humans.

However, animals can matter indirectly to the extent that humans care about them (Sandøe et al., 2016). For example, animals are treated well enough to maintain the animal's condition so to provide beneficial use for or fulfil contractual obligations to other people.

b. Utilitarian

A utilitarian view is signified by the consequences of actions. A utilitarian acknowledges that animals deserve moral consideration and seeks to maximise the overall utility, or the welfare, of all sentient beings involved (Sandøe et al., 2016). Sentient beings can include both humans and animals.

Therefore, when justifying the use or treatment of animals for human benefit, the consequences on the animals' welfare must be considered.

c. Animal Rights

A person with an animal rights' view believes that animals have an inherent worth and as a consequence have rights that need to be protected (Palmer and Sandøe, 2011). The decisions regarding human actions are based on the direct obligation towards the animals rather than because of the consequences of these actions.

The most basic of these rights is to have their inherent worth respected. This often is made operational in terms of a rights to life and liberty. From the animal rights' view, the rights of individual animals are the main focus rather than populations of animals as a whole.

d. Relational

The relational view considers the human relationship to animals as the central point for ethical judgements. The stronger the human-animal bond, the more animals depend on human care, or the closer the relationship between human and animal, the more people are obliged to care for the animals (Animal Ethics Dilemma, 2018). This duty towards the animals can include individual animals or a group of animals.

What is a moral problem?

An **ethical dilemma** occurs when two or more ethical principles are in conflict (Allen, 2012). The veterinarian is unsure of the correct path of action to follow with no obvious way to prioritise one action over another (Ellen 2012; Morgan and McDonald 2007; Mullan and Fawcett 2017). This differs from a **moral problem** or **moral conflict**, where the veterinarian's own moral code of conduct conflicts with professional or societal ethical expectations. The veterinarian "knows" the correct path to follow but is unable to act upon it due to internal or external constraints (Hamric et al., 2006; Jameton 1984; Wilkinson 1987-1988). Moral conflicts and ethical dilemmas can cause "moral distress," and lead to psychological and emotional anguish if they remain unresolved.

Why does it matter?

Veterinary practice involves a high level of personal and professional responsibility, as well as exposure to client demands and expectations, animal distress and death, and to client grief. These demands and responsibilities can frequently involve the potential for emotional and moral stress. A 2012 UK survey revealed that UK veterinarians regularly face stressful ethical dilemmas (Batchelor and McKeegan, 2011), with a majority of respondents (57%) reporting that they face 1-2 ethical dilemmas per week and another 34 per cent reporting that they face 3-5 dilemmas per week. These difficult situations included convenience euthanasia (euthanasia of a physically and psychologically healthy animal); client financial limitations restricting treatment; or pet owners wishing to continue treatment despite compromised animal welfare.

Approaches to moral problems

1. Exploration: Identify the issues involved

A moral problem may involve more than one issue. It is necessary to identify the various issues so that solutions or approaches become clearer.

a. Distinguish between animal welfare and other ethical issues:

Ethics and animal welfare are closely related but are not interchangeable concepts and it is important to distinguish between welfare and other ethical issues. Animal welfare issues start in the recognition of animals as morally important but refer to the state of the animal and its experience, and these can be assessed with scientific methods. Animal welfare issues should be assessed from both an immediate point of view, as well as consideration of future impact caused by any decision for action or inaction. Furthermore, acting with high moral standards is no guarantee for high levels of animal welfare; good intentions may still result in poor welfare outcomes. For example, any surgery is likely to prove painful, and thus the benefits to the animal and likely outcome and success of the surgery must be considered. Any treatment or procedure that involves behavioural restrictions, or potentially pain and/or anxiety will also adversely affect the animal's welfare.

Similarly, there is more to ethics than animal welfare. The ethical issues also involve the actions and responsibilities of the people involved. What any person may consider the right thing to do will be shaped by their moral convictions, and cultural, religious and societal influences (Serpell, 2004). Ethical issues that may need to be considered include the veterinarian's responsibility not to place owners under undue financial stress and to offer them a range of financial treatment options. Owner compliance influences animal welfare and so the veterinarian should not recommend complex treatments to a client who has previously demonstrated poor compliance. Also, the veterinarian needs to consider the owner's preferred treatment approaches and whether quality of life (QoL) or duration of life is more important to the owner.

b. Identify legal issues:

It is essential to identify potential legal issues that may arise in any veterinary clinical scenario. The veterinary team should be knowledgeable about the relevant local legislation, which can include animal protection or prevention of cruelty laws, animal welfare laws, public health, licencing of animals, and professional regulations. Additionally, it has been recognised by many veterinary organisations such as the FVE, AVMA and the OIE that veterinarians have professional ethical responsibilities to safeguard the welfare of animals (AVMA, 2014).

2. Analysis: Establish the interest of the affected parties

a. Identify the parties involved and their responsibilities:

Each ethical or moral problem in the veterinary clinic involves considering the interests of more than one party in deciding on the next course of action for the animal. The direct parties involved can include the animal itself (your patient), the veterinarian (yourself), the owner or guardian of the animal (your client), and the clinic or business (your employers). It is vital to identify the different responsibilities of these parties; who makes the final decision and who is responsible for taking action. Some decisions can also have a wider effect on the veterinary profession, the public or animal populations.

b. For each party, identify their standpoint and interests

Once the parties are identified, it is necessary to understand the needs and wants of each, their motivation and factors that may influence their decision, including their financial circumstances, their capabilities to care, or their desire to save lives. Understanding their ethical or moral standpoint will help to reach an acceptable decision for all involved. The four ethical theories, as described above, can be guidance to understanding how individuals or a society view the use of animals.

3. Action: Choose a course of action

a. List the possible actions

It is important to first identify all possible choices that may lead to resolution of the moral problem. There may be many possible options. For example, in managing a sick or injured pet the decision may be for immediate action such as performing surgery, or to manage medically instead; refer to another veterinarian, or to provide palliative care and pain relief. Electing to do nothing is also a course of action to be considered for moral problems.

b. Decide on the “best-fit” option

Once the issues involved are identified, and the interests of the various parties have been taken into account, the available options can be refined and narrowed. The aim is to find a suitable course of action that is acceptable to all direct parties involved. The choice should be consistent with the policies of the veterinary clinic. The decision must also consider the competencies and resources that are available to the veterinarian and the clinic.

c. Manage disagreements

Sometimes parties disagree. It is necessary to appreciate that pet owners have the right to their own views and opinions and these need to be respected, even if they are contrary to the veterinarian’s personal position. However, the veterinarian or clinic also have the right to politely decline to provide the requested veterinary services. In some cases, if an adverse welfare outcome for the animal is likely, then local laws to prevent cruelty to animals may also be relevant. It does need to be considered that refusing service or doing nothing is also considered a choice in itself and can have consequences that would affect the welfare of the animal. If this action results in a negative welfare issue for the animal, the veterinarian may need to ensure that additional appropriate actions are undertaken to prevent this.

4. Refinement: Minimise the negative impact of the decision

a. Consider impact on welfare and reduce negative welfare

Once a course of action has been chosen, consider how the decision will impact on the current and future welfare of the animal. Consider taking reasonable steps that would reduce the suffering and increase positive experiences for the animal. For example, by ensuring adequate analgesia for all animals undergoing surgery to prevent and manage pain.

Common moral problems in veterinary practice

Selective breeding of companion animals

Selective breeding of dogs and cats can contribute to significant welfare problems including selecting for extreme traits that can lead to health problems in certain breeds. Ethical dilemmas and moral problems can arise when the clinic is approached to assist the treatment and breeding of these animals.

From a utilitarian point of view, the breeding of some animals may not be acceptable because of the risks to the individual animal’s welfare. However, as humans enjoy keeping these pets, selective breeding can be justified through moderation of extreme pedigree standards and prioritising selection for good health and suitability as companion animals.

From an animal rights’ perspective, the argument may be made that the animals have the right to breed naturally, free from human interference. Therefore, interference of this right through selective breeding may not be acceptable.

Euthanasia

Euthanasia of animals often presents ethical and moral issues for veterinarians. The ethical issues surrounding euthanasia usually involve three areas. First, is euthanasia acceptable? Second, if acceptable, when is the right time to perform euthanasia? And third, and what method of euthanasia is most appropriate?

Euthanasia of an animal may be done to provide relief of current suffering, or to prevent future suffering. Both physical and psychological disorders can cause suffering and provide grounds for euthanasia. Additionally, a lack of appropriate resources leading to an inability to provide the Five Animal Welfare Needs can also lead to suffering and warrant euthanasia. Euthanasia of animals may also be requested for the convenience of the human caregivers.

In addition to societal ethics, a person's moral position will determine their acceptance or otherwise of euthanasia. This applies to both the pet owner and the veterinarian. There are those who believe that it is morally wrong to take away the life of any animal for any reason (an animal rights' perspective). This belief is oft-times linked to cultural or religious norms that value life.

For those who accept euthanasia, there are various levels of acceptance. It may be easier to accept or justify the euthanasia of an animal that is currently and obviously physically suffering. However, it may be less acceptable to persons to euthanise an animal that may potentially suffer in the future, that is suffering due to mental health reasons, for reasons of population control or for the convenience of the owner. Although an animal may not be suffering at the present moment, its future welfare may be compromised. For example, the progression of certain diseases or health conditions, unowned animals who live in sub-optimal conditions, animals in a shelter, or animals at risk of relinquishment by their current owners. Useful guidance exists to aid with euthanasia decision-making from International Fund for Animal Welfare (IFAW, 2011) and the British Veterinary Association (BVA, 2016).

Once the need for euthanasia is established, the next decision is when to euthanise. This decision can be guided by assessing of the welfare state and quality of life of the animal. Delaying euthanasia can prolong animal suffering, meaning a poor animal welfare outlook.

It is also essential that appropriate methods of euthanasia are used, particularly in areas where the necessary access to pharmaceutical euthanasia may be limited. Some commonly used chemicals, for example magnesium sulphate (MgSO₄), potassium chloride (KCl) actually result in a painful death and are not considered humane (ICAM Coalition, 2011; AVMA, 2013). For euthanasia guidelines please refer to **AVMA Guidelines for the Euthanasia of Animals** (Leary et al., 2013).

Cosmetic and convenience surgeries

Cosmetic or convenience surgeries, such as ear cropping, tail docking, declawing or debarking surgeries, are usually performed for aesthetic reasons, to follow certain breed standards, or for the

convenience of the owner. Occasionally certain surgeries, such as tail docking, are necessary procedures to treat medical conditions.

Aside from medically necessary procedures, these surgeries may benefit the pet owner in terms of the convenience of keeping these animals and may reduce the risk of relinquishment. However, the risk to the animals will include acute and chronic pain, infection and discomfort from the surgical procedure, as well as limiting their ability to perform natural behaviours which may result in problems such as behavioural frustration or aggression. For example, the tail is a key body part in dogs for communicating with other dogs, and its removal may increase miscommunication (Mellor, 2018). Furthermore, many of the unwanted behaviours that drive these surgeries, such as excessive barking, actually indicate that a welfare problem exists and stopping an animal from communicating its distress may worsen the welfare situation. For natural behaviours such as cats scratching, declawing to protect furniture etc. can result in chronic pain and behavioural frustration which will negatively impact on welfare. Many problematic behaviours may be resolved with training or using other humane aids, and education of owners to ensure that they have reasonable expectations of their pet's behaviour. Behavioural problems also benefit from the judicious use of medication as well as behaviour modification and environmental management.

From a utilitarian standpoint, it is frequently argued that there is little benefit in such procedures for the animal compared to the risk, behavioural frustration and pain that the animal will consequentially endure. This argument is also widely used as a justification to ban the practice of such surgeries, and even in countries where such surgeries are not illegal, many veterinarians will not perform them on ethical and welfare grounds arguing these procedures cause more harm than benefit to the animal.

From an animal rights' perspective, these convenience surgeries invade the animals' bodily integrity so are not ethically acceptable. On the other hand, from a relational viewpoint, these surgeries may be acceptable if the pet owner is willing to take the risks of the procedure so that in the long run it strengthens the relationship with their pet and the pet owner is willing to care for the animal. A contractarian view will also accept these surgeries as the procedures do not infringe on their moral duties to other people. These surgeries are possibly performed because veterinarians take a contractarian ethical standpoint, valuing the relationship with the client and the client's wishes over the animal welfare impacts.

Advanced veterinary treatment

Veterinary medicine has progressed considerably in recent years, and the technology and expertise exist to save and extend the lives of pets more than ever before. The ethical dilemma revolves around the decision to treat an animal to extend their quantity of life and how it impacts on the quality of their remaining life.

Another issue in advanced veterinary treatment is the use of animals for blood transfusions or donor organs. Donor animals cannot give consent, so the cost to them should be weighed against the

benefits to the recipient animals. Other considerations regarding donor animals are the source of these animals and their outcome after donation procedure.

One of the most controversial ethical and moral issues regarding donors is the use of unowned animals as sources for donor organs. If the unowned animal was destined to be euthanised then there will be no change to its status whether it be a donor or not (assuming its welfare is cared for throughout any donation or non-donation timeline). If the animal was to be adopted as a consequence of the donor program, then its life may be preserved. However, these animals cannot consent to being donors, and considerable harm is potentially done through the procedure, whilst the lives of the recipient animals may be extended only for a brief period without any certainty of an improved QoL.

The utilitarian perspective looks at the costs and benefits to both the recipient and donor animal, and at what point do the benefits to one or both animals outweigh the risks of the procedures undertaken. If the organ recipient's life is not expected to be extended for any appreciable length of time, and the QoL not significantly bettered, then this will outweigh the costs in terms of surgery, recovery and the potential loss of the life of the donor.

The extension of the recipient animal's life is in line with an animal rights' view. However, this view conflicts with using a donor animal as it harms its bodily integrity or may even result in loss of life.

From a relational point of view, an owner of a recipient animal would be obligated to provide treatment for their pet that would optimise their quality and quantity of life. However, their obligation towards the donor animal will depend on their relationship to that animal.

Client confidentiality

Client confidentiality is an area that crosses ethical, moral and legal grounds. In most situations, veterinarians have an ethical responsibility to keep accurate & contemporaneous medical records on their patients. Client information relating to guardianship of the animal concerned also needs to be recorded, but this information must be held in strict confidence, only to be disclosed to others with the client's full consent.

However, on occasion, the veterinary clinic and practitioner may be asked or required to breach this confidentiality in the interests of animal welfare, human welfare, or public safety. For example, in cases of suspected animal mistreatment or neglect, suspected domestic or child abuse, or zoonotic diseases posing risks to the public.

Animal cruelty, mistreatment and neglect

Unfortunately, veterinarians and the veterinary teams are on occasion presented with cases where the abuse, mistreatment or neglect of an animal is suspected.

It is important for the veterinary clinic to be prepared to tackle animal welfare issues that need to be further investigated. It is recommended that every clinic have a standard operating procedure (SOP) to handle and report suspected animal cruelty cases and to accurately document veterinary findings.

All veterinary staff should be trained on the SOP including being conversant with animal cruelty and protection laws, and the veterinary clinic rules and regulations regarding the reporting cases of suspected abuse. Where to report cases should be identified. Depending on the jurisdiction, there may be one or more responsible agencies investigating cruelty cases, possibly depending on the circumstances (e.g. potential criminality) or the species involved. Those responsible can include animal services, animal related government departments and law enforcement agencies. The legal office and officials responsible for prosecuting animal cruelty cases should also be identified. This may vary depending on the type of law that may have been violated and where an alleged offence occurred.

These cases should **always** be reported to the appropriate authorities. However, reporting such cases could be regarded as a breach of client confidentiality. Client confidentiality and reporting mechanisms may not be supported by legislation in certain countries. For example, countries without any animal protection laws may not have any authorities in charge of investigating animal cruelty. In these areas, the veterinary team may request the client to surrender the ownership of the animal. In some situations, the animal welfare concern may be addressed through education and further monitoring.

All staff should follow clinic protocol regarding confidentiality of client and pet. This is especially important in legal cases and should include a policy prohibiting the sharing of information and digital images related to any case on social media, electronically or elsewhere. These policies should be part of the staff training and included in the SOP.

Please see [Appendix 1](#) for the suggested contents of the SOP for suspected abuse cases.

*Sterilisation (Desexing, Spay, Neuter, Castration) **

The sterilisation of dogs and cats is a routine undertaking in most veterinary clinics worldwide. It is commonly considered by societies, veterinarians and pet owners as part of the standard approach to controlling pet reproduction, with the benefits outweighing the costs and risks of the procedure itself.

However, there is increasing scientific evidence suggesting that despite the societal and owner benefits, sterilisation of pets carries risk to the animal – not only in the immediate term associated with the sterilisation procedure itself, but also in the longer term, depending on biological sex, age at time of neutering, breed, and species of the animal (Hart et al., 2014; Goh, 2016). As sterilisation may have both positive and negative impacts on an animal's behaviour and/or health, the ramifications of the decision to sterilise must be thus considered for each individual animal (APBC, 2015).

From an animal rights' point of view, neutering restricts the rights of the animals to reproduce, and as the animal itself cannot consent to the procedure, it cannot be condoned. However, the utilitarian views neutering as part of a possible solution to the greater problem of pet over-population though it

* Throughout this document, the terms neutering and desexing are used interchangeably to mean any irreversible, usually but not exclusively surgical, procedure intended to prevent animal reproduction. Also synonymous is the term Animal Birth Control (ABC).

may result in individual pain and risks. If there are no other reasonable alternatives, preventing the births of unwanted animals could better ensure the welfare of both animal and human populations. The use of neutering in population control should be backed by evidence that it works in that area that it is advocated, and performed with adequate veterinary standards, pain management and nursing care.

Nutritional-related welfare issues

Pets that are fed improper diets - relating to the suitability, quality and quantity of food - may develop health and welfare problems. Overfeeding can result in overweight or obesity, underfeeding may not allow adequate nutrition for growth and maintenance, while inappropriate diets can result in nutritional imbalances or malnutrition.

The reasons behind inappropriate or inadequate feeding may be multiple and may be related to the owner's lifestyle and own diet, anthropomorphisation of animals, and personal or religious beliefs. Additionally, societal norms and socio-economics may play a role, while inaccurate and/or non-scientific information from a variety of sources can mislead or misinform well-meaning pet owners who may be unaware of the welfare issues they are causing.

A significant healthcare and welfare issue in companion animals (and often their human carers) in many countries is that of obesity. Overweight & obese pets are compromised in both life-expectancy & health-related quality of life (Sandøe et al., 2014). A restrictive diet may be used to both prevent and treat obesity and can increase lifespan and delay onset of species-specific degenerative diseases, especially osteoarthritis in dogs (Lawler et al., 2008).

Though negative welfare states such as increased hunger, stress elevation, behavioural changes may occur with food restriction, there is a longer term positive welfare impact with maintenance of a healthy weight and body condition. The utilitarian may justify the temporary hunger in view of longer term health benefits. From the contractarian and relational views, maintaining a healthy pet is important in their roles as companions that live longer with a higher quality of life.

A pro-active approach should be taken by the veterinary team to prevent or, if already present, treat nutritional welfare problems. Assessment should be made of the pet's body condition (Body Condition and Muscle Condition Scores), the nutritional requirements compared to current provisions, and then discussion with the pet owner about the actions to take to maintain or achieve a healthy body weight. Refer to the **WSAVA Nutrition Guidelines** for more detailed information (WSAVA, 2011). In addition, the WSAVA One Health Committee has an editorial and three open-access manuscripts on the health and welfare implications of obesity available for download from the Journal for Comparative Pathology (WSAVA, 2017).

Conclusion

Knowledge and competence in veterinary ethics is an essential part of veterinary clinical practice. The veterinary practitioner needs to juggle a plurality of moral views and changing public expectations on the status of animals in society. To deal with this, professional integrity is key (Meijboom, 2017). While veterinary ethics is now often included in veterinary school curricula, for many practitioners additional training is essential to develop their ethical decision-making skills (Animal Ethics Dilemma, 2018).

Checklist

- ✓ Have you reflected on the evidence for your own attitudes towards the animals that you care for?
- ✓ Have you reflected on how your personal viewpoints may influence how you practice as a veterinarian, and how this may impact upon animal welfare?
- ✓ Could you inadvertently be causing harm even when you intend to do well?
- ✓ Have you explored training options in dealing with stressful ethical dilemmas?
- ✓ Do you have a practice policy to support you in making difficult ethical decisions?

References

- Allen, K. (2012). *What Is an Ethical Dilemma?* [online] SocialWorker.com. Available at: http://www.socialworker.com/feature-articles/ethics-articles/What_Is_an_Ethical_Dilemma?/ [Accessed 8 Jun. 2018].
- Animal Ethics Dilemma (2018). *Animal Ethics Dilemma*. [online] Aedilemma.net. Available at: <http://www.aedilemma.net> [Accessed 8 Jun. 2018].
- Association of Pet Behaviour Counsellors (APBC) (2015). *Castration Risks and Benefits: Dogs*. [ebook] https://www.apbc.org.uk/system/files/private/apbc_summary_sheet_of_castration_risks_and_benefits.pdf. [Accessed 8 Jun. 2018].
- AVMA (2013). *AVMA Guidelines for the Euthanasia of Animals*. [online] AVMA.org. Available at: <https://www.avma.org/KB/Policies/Documents/euthanasia.pdf> [Accessed 12 Jun. 2018].
- AVMA (2014). [online] Available at: <https://www.avma.org/KB/Policies/Pages/Joint-Statement-Animal-Welfare.aspx> [Accessed 8 Jun. 2018].
- Batchelor, C. and McKeegan, D. (2011). Survey of the frequency and perceived stressfulness of ethical dilemmas encountered in UK veterinary practice. *Veterinary Record*, 170(1), pp.19-19.
- BVA (2016). *BVA - Euthanasia of animals*. [online] BVA.co.uk. Available at: <https://www.bva.co.uk/Workplace-guidance/Ethical-guidance/BVA-Euthanasia-Guide/> [Accessed 29 Jun. 2018].
- Goh, C., (2016). Age of neutering in large-& giant-breed dogs. *Clinician's Brief*, 14(8), 18-23.
- Hart, B., Hart, L., Thigpen, A. and Willits, N. (2014) Long-Term Health Effects of Neutering Dogs: Comparison of Labrador Retrievers with Golden Retrievers. *PLoS ONE* 9(7): e102241. <https://doi.org/10.1371/journal.pone.0102241>

ICAM Coalition (2011). *The welfare basis for euthanasia of dogs and cats and policy development*. [ebook] <http://www.icam-coalition.org/downloads/ICAM-Euthanasia%20Guide-ebook.pdf>

ICAM Coalition (2011). *Humane cat population management guidance*. [ebook] <http://www.icam-coalition.org/downloads/ICAM-Humane%20cat%20population.pdf>

IFAW (2011). *The welfare basis for euthanasia of dogs and cats and policy development*. [online] IFAW - International Fund for Animal Welfare. Available at: <https://www.ifaw.org/united-states/resource-centre/welfare-basis-euthanasia-dogs-and-cats-and-policy-development> [Accessed 29 Jun. 2018].

Lawler D, Larson B, Ballam J, Smith G, Biery D, Evans R, Greely E, Segre M, Stowe H and, Kealy R. (2008) Diet restriction and aging in the dog: major observation over two decades. *British Journal of Nutrition* 99, 793-805

Leary S, Underwood W, Anthony R, Cartner S, Corey D, Grandin T, Greenacre C, Gwaltney-Brant S, McCrackin M, Meyer R, Miller D. (2013) *AVMA Guidelines for the Euthanasia of Animals: 2013 edition*. [online] Available at: <https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>

Meijboom, F. (2017). More Than Just a Vet? Professional Integrity as an Answer to the Ethical Challenges Facing Veterinarians in Animal Food Production. *Food Ethics*, 1(3), pp.209-220.

Palmer, C. and Sandøe, P. (2011). Chapter 1: Animal ethics in Appleby, M. C., Mench, J. A., Olsson, I. A. S. and Hughes, B. O. *Animal Welfare*. 2nd edition. CABI

Mellor, D. (2018). Tail Docking of Canine Puppies: Reassessment of the Tail's Role in Communication, the Acute Pain Caused by Docking and Interpretation of Behavioural Responses. *Animals*, 8(6), p.82. <https://doi.org/10.3390/ani8060082>

Sandøe, P., Corr, S. and Palmer, C. (2016). *Companion animal ethics*. John Wiley & Sons.

Sandøe, P., Palmer, C., Corr, S., Astrup, A., and Bjørnvad, C. (2014) Canine and feline obesity: a One Health perspective. *Veterinary Record* 175(24):610-6

Serpell, J. (2004). Factors Influencing Human Attitudes to Animals and Their Welfare. *Animal Welfare* 13: S145-151

Taylor, N., and Signal, T. (2009). Pet, pest, profit: Isolating differences in attitudes towards the treatment of animals. *Anthrozoös*, 22(2), 129-135.

World Animal Protection (2012). *Concepts in Animal Welfare: 12. The Application of Animal Welfare Ethics*. [online] Available at: <https://www.globalanimalnetwork.org/concepts-animal-welfare-1-introduction-animal-welfare> [Accessed 21 Mar. 2018].

WSAVA (2011). *Global Nutrition Guidelines | WSAVA Global Veterinary Community*. [online] WSAVA.org. Available at: <http://www.wsava.org/Guidelines/Global-Nutrition-Guidelines> [Accessed 8 Jun. 2018].

WSAVA (2017). *Journal of Comparative Pathology*. [online] Journals.elsevier.com. Available at: <https://www.journals.elsevier.com/journal-of-comparative-pathology/open-access-articles> [Accessed 30 Jun. 2018].

Chapter 5: Communication with owners regarding animal welfare

Recommendations

To confirm our commitment to the highest animal welfare standards, WSAVA calls on all veterinarians and veterinary associations to:

1. maintain and update their knowledge on effective communication with clients and pet owners including animal breeders through relevant training and resources.
2. maintain and update their knowledge on effective communication methods with veterinary colleagues and veterinary staff.
3. appreciate that sensitive subject matter such as euthanasia and financial issues require special communication approaches.
4. learn to manage clients in challenging circumstances e.g. hoarders, “rescuers”, very emotional clients.
5. understand that being a good communicator helps to safeguard personal mental health and prevent compassion fatigue.
6. confidently recognise and identify incidences of animal mistreatment and know how best to communicate in these matters with clients and regulatory bodies.

Introduction

The relationship-centred veterinary care model is recognised as an important framework for an ideal health-care system because it identifies the nature of relationships as a fundamental component of the successful delivery of high-quality care (Kanji et al., 2012). This communication model emphasises the collaboration between the veterinarian and the client, in which there is mutual understanding and recognition of the client’s perspectives and expertise in the pet’s care through shared negotiations and balance of power (Shaw, 2006). Advantages of implementing this model in veterinary practice are improved compliance, increased veterinarian and client satisfaction, fewer malpractice claims and improved patient health (Kanji et al., 2012).

Communicating with owners is vital to a successful veterinary practice (Cornell et al., 2007), and to improve animal welfare. There is an increasing recognition of the importance of relationships people have with their companion animals, and many owners see their pet as a member of their family (Endenburg and van Lith, 2011). Because of this caregiver relationship, pet owners call on the veterinary services to optimise the health and welfare of their animal. Apart from scientific, technical and clinical skills, it is important that veterinarians have excellent communication skills to thrive in private practice, success being measured in terms of the health and welfare of the companion animal, the pet owner and the staff of the veterinary clinic.

Communication is inevitable, unavoidable, and one of the most common skills employed in daily veterinary life. Veterinarians may believe that possessing and applying their expertise and medical knowledge to diagnose and treat animals is the only requirement for success. However, studies have

confirmed effective communication correlates with increased veterinary clinic success as well as improved career, personal and client satisfaction (Cornell and Kopcha, 2007). Research has shown however, that communication skills are not always part of veterinary education (Shaw, 2006), and often insufficient attention is given to developing these in a crowded veterinary curricula (Cornell and Kopcha, 2007). More, many veterinarians feel they are not well prepared to communicate in an effective manner.

Veterinarian-client interactions and the choice of communication style should be tailored to the individual client and patient (Shaw, 2006). A “joint venture” between the veterinarian and client will help provide optimal care for the animal. During the process of gathering information and client education, communication should elicit information on not only the animal, but also any lifestyle or social issues that may influence a pet’s health and welfare.

The veterinarian relies on observation skills, the owner-pet interactions, as well as the skill of the physical examination to reach an accurate diagnosis. The veterinarian also depends on the information from the owner to provide additional information to reach this diagnosis. “Building a relationship is vital to the success of every appointment” (Silverman et al., 2005). Although acknowledged as important to the care process, many veterinarians do not invest in building a partnership with the owner. Not building a relationship can lead to increased non-adherence and medication errors (Wayner and Heinke, 2006). In this chapter aspects of successful communication with owners to optimise animal welfare are discussed.

Compliance

One of the factors in the optimisation of animal welfare is compliance. Compliance in veterinary medicine is “the consistency and accuracy with which a patient follows a prescribed regimen” (Verker et al., 2008). A study conducted by the American Animal Hospital Association (AAHA) found that client compliance was considerably lower than was predicted and expected by veterinarians in several key areas (AAHA, 2003).

Veterinary professionals could have a substantial impact on improving adherence by prioritising and documenting the value of recommendations made, and by appropriately addressing clients’ concerns and questions about these recommendations (Abood, 2007). The client’s ability to recall important information regarding the treatment or the management of the pet, and therefore adhere to recommendations, can be improved with written instructions that make concise and are legible (Abood, 2007). Prioritising recommendations can be valuable by making clear what clients should focus on in the short term or until the next visit. Most clients remember only between 25% and 50% of what the veterinarian says during the consultation. In human medicine, it was found that patients who were able to fully explain their illnesses to their physician recalled more information and were more committed to treatment (Tuckett et al., 1985).

Behavioural scientists have found that confidence or self-esteem is one of the most important determinants of successful behaviour change. Individuals have experiences that affect their level of

confidence in their own ability to carry out a recommendation (Abood, 2007). This is also important for owners who must change their management strategies regarding their pets. Obesity in pets for instance compromises animal welfare. Owners need be convinced that a weight loss program will only succeed if they understand and agree that their pet must lose weight; then they need have the confidence that they can succeed in following through the program.

Empathy

Expressing empathy is central to building a relationship (Silverman et al., 2005). In human medicine, clinical empathy is defined as “having the capacity to understand the patient’s situation, perspective, and feelings, to communicate that understanding and check its accuracy, and to act on that understanding with the patient in a helpful way” (Neumann et al., 2009). Empathy is the expression of active concern for and curiosity about the emotions, values, and experiences of another. Empathy suggests an appreciation for what an experience may be like for the client through seeing, hearing, and accepting the client’s perspective and concern (Cornell and Kopcha, 2007). Owners care about their pet - they want the veterinarian to do the same. This can be done by showing concern, rather than professional detachment. Empathic concern in the study of Shaw et al. (2012), was consistently associated with the quality of the veterinarian-client-patient relationship.

Examples

- *I see that you really love Fluffy and you really want to do everything to keep her healthy.*
- *It must be difficult for you not to give Spot a treat when he is looking at you that way!*

Verbal and non-verbal communication

Although estimates vary, it is recognised that approximately 80% of communication is non-verbal, whereas 20% is based on verbal content (Shaw, 2006). Conscious verbal communication reflects what a person is thinking and effectively communicates. Subconscious non-verbal communication tends to reflect what a person is feeling and communicates attitudes, emotions, and affect. Veterinary medical terminology that veterinarians are trained to use with professional colleagues to prevent misunderstandings, is most times not very helpful when speaking with owners. Most owners have little or no medical training and are not familiar with the medical terminology. However very often they are reluctant to admit that they don’t understand what the veterinarian is telling them, so not to appear ignorant. Misunderstandings can thus easily happen. Veterinarians often assume that owners are going to speak-up if they do not understand or disagree with a decision. Owners want and need to be asked their opinion (Shaw et al., 2004).

In non-verbal communication there are four subdivisions: the body language like body position and facial expression; spatial relationships like the distance between the veterinarian and owner; para-language such as tone of voice and volume; and autonomic responses such as flushing and sweating (Shaw, 2006).

Open-ended questions

Open-ended questions allow clients to tell their story in their own words without leading or prompting by the veterinarian. Questions that incorporate “when”, “what”, or “where” maybe helpful for clients to tell their story (Shaw, 2006). It gives them the feeling they are taking seriously. Closed questions can only be answered by “Yes” or “No”. It is most times a good strategy to start with open-ended questions and narrow it down to closed questions.

Examples

- *What are your thoughts about Fluffy’s weight?*
- *What do you think about Spot’s exercise levels?*

Reflective listening

Reflective listening is a skill that uses summarising, paraphrasing, or hypothesising to review the information the client has shared, allowing the client to hear his own story as understood by the veterinarian (Cornell and Kopcha, 2007). It demonstrates interest in the owner and to understand what the owner is trying to say. It goes together with open-ended questions (Shaw, 2006). It also allows the client to add further information, clarify points where the story may be unclear, and correct misconceptions. And it gives the client the idea that his opinion is heard, recognised and valued.

Example

- *It seems that you don’t like talking about Fluffy’s health issues.*
- *You are concerned about Spot’s weight and would like to do something about reducing it but are not sure of the best approach.*

Client confidentiality

It is very important the veterinary team have the confidence to communicate their concerns - as long as there is a sympathetic and open-minded person to share the knowledge. Being apprehensive about acting or voicing concerns is understandable, but not professionally acceptable - as advocates for animal welfare, veterinary professionals must have as their priority protecting animals from further harm (Animal Welfare Foundation, 2016).

It is also important that the client has sufficient trust in the veterinarian and veterinary staff to feel the freedom to not only communicate information about the animal’s physical condition(s) but also, if necessary, raise any personal issues that may influence the animal’s welfare. The client needs to be certain that the veterinarian will treat this information with care.

Animal mistreatment, cruelty and abuse

Animal mistreatment, cruelty and/or abuse are global issues and cause an incalculable degree of animal suffering (McMillan et al., 2015). There is active animal abuse, regarded as “socially

unacceptable behaviour” that intentionally causes unnecessary pain, suffering, distress and/or the death of an animal (Ascione, 1993). Animals may be presented with non-accidental injuries (NAI). Neglect, or passive mistreatment/cruelty, involves not providing essentials such as an adequate diet, appropriate shelter or the necessary health and veterinary care. This may be due to ignorance or apathy.

It can be difficult to recognise NAIs in animals – the animal’s coat may conceal overt signs of injury, and behaviours may not always be good indicators of mistreatment. Recognising animal abuse requires training and a skilled observer - the following are provided as references for further review and research – Almeida, Torres and Wuenschmann (2018); Monsalve, Ferreira and Garcia (2017); Arkow (2015); Merck (2013); Munro and Munro (2008).

The same is true about communication with an owner who presents an apparently mistreated animal to the veterinary clinic. Not infrequently the person who brings the animal to seek veterinary help is not the same one who has abused the animal. There is an overlap between animal abuse and domestic violence, and it is essential to be aware that there may be two victims in the consultation room - the animal and the owner (Ascione et al., 2007).

Checklist

- ✓ Have you explored training options to improve your communication skills with owners and other veterinary professionals?
- ✓ Do you have regular meetings with the veterinary team to discuss handling difficult client situations (specific or general)?
- ✓ Are you aware of your own communication style and how to improve effective communication?
- ✓ Have you reflected on how to deal with animal abuse situations?
- ✓ Do you have safeguards in place to ensure client confidentiality?

References

Abood, S. (2007). Increasing Adherence in Practice: Making Your Clients Partners in Care. *Veterinary Clinics of North America: Small Animal Practice*, 37(1), pp.151-164.

Almeida, D., Torres, S. and Wuenschmann, A. (2018). Retrospective analysis of necropsy reports suggestive of abuse in dogs and cats. *Journal of the American Veterinary Medical Association*, 252(4), pp.433-439.

American Animal Hospital Association (2003). *The path to high-quality care. Practice tips for improving compliance*. Denver (CO): American Animal Hospital Association.

Animal Welfare Foundation and The Links Group (2016). *Recognising abuse in animals and humans*. 2nd ed. London. [online] Available at: <https://www.animalwelfarefoundation.org.uk/wp-content/uploads/2017/12/20160415-AWF-Recognising-abuse-in-animals-and-humans-v10-web.pdf>

Arkow, P. (2015). Recognizing and responding to cases of suspected animal cruelty, abuse, and neglect: what the veterinarian needs to know. *Veterinary Medicine: Research and Reports*, p.349.

- Ascione, F. (1993). Children who are cruel to animals: A review of research and implications for developmental psychopathology. *Anthrozoös*, 6(4), 226-247.
- Ascione, F., Weber, C., Thompson, T., Heath, J., Maruyama, M. and Hayashi, K. (2007). Battered Pets and Domestic Violence. *Violence Against Women*, 13(4), pp.354-373.
- Cornell, K. and Kopcha, M. (2007). Client-Veterinarian Communication: Skills for Client Centered Dialogue and Shared Decision Making. *Veterinary Clinics of North America: Small Animal Practice*, 37(1), pp.37-47.
- Endenburg, N. and van Lith, H. (2011). The influence of animals on the development of children. *The Veterinary Journal*, 190(2), pp.208-214.
- Kanji, N., Coe, J., Adams, C. and Shaw, J. (2012). Effect of veterinarian-client-patient interactions on client adherence to dentistry and surgery recommendations in companion-animal practice. *Journal of the American Veterinary Medical Association*, 240(4), pp.427-436.
- McMillan, F., Duffy, D., Zawistowski, S. and Serpell, J. (2015). Behavioral and psychological characteristics of canine victims of abuse. *Journal of applied animal welfare science*, 18(1), 92-111.
- Merck, M. (2013). *Veterinary forensics*. Ames, Iowa: John Wiley & Sons, Inc.
- Monsalve, S., Ferreira, F. and Garcia, R. (2017). The connection between animal abuse and interpersonal violence: A review from the veterinary perspective. *Research in Veterinary Science*, 114, pp.18-26.
- Morrissey, J. and Voiland, B. (2007). Difficult Interactions with Veterinary Clients: Working in the Challenge Zone. *Veterinary Clinics of North America: Small Animal Practice*, 37(1), pp.65-77.
- Munro, R. and Munro, H. (2008). *Animal abuse and unlawful killing*. Edinburgh: Elsevier Saunders.
- Neumann, M., Bensing, J., Mercer, S., Ernstmann, N., Ommen, O., Pfaff, H. (2009). Analyzing the “nature” and “specific effectiveness” of clinical empathy: a theoretical overview and contribution towards a theory-based research agenda. *Patient Education and Counseling*, 74, pp.339-346.
- Shaw, J., Adams, C., Bonnett, B., Larson, S. and Roter, D. (2004). Use of the Roter interaction analysis system to analyze veterinarian-client-patient communication in companion animal practice. *Journal of the American Veterinary Medical Association*, 225(2), pp.222-229.
- Shaw, J. (2006). Four Core Communication Skills of Highly Effective Practitioners. *Veterinary Clinics of North America: Small Animal Practice*, 36(2), pp.385-396.
- Shaw, J., Adams, C., Bonnett, B., Larson, S. and Roter, D. (2012). Veterinarian satisfaction with companion animal visits. *Journal of the American Veterinary Medical Association*, 240(7), pp.832-841.
- Silverman, J., Kurtz, S., Draper, J. (2005). *Skills for communicating with patients*. Arbingdon (UK): Radcliffe Medical Press.
- Verker, M., van Stokrom, M. and Endenburg, N. (2008). How can veterinarians optimize owner compliance with medication regimes? *European Journal of Companion Animal Practice*, 18(1), pp73-77).
- Wayner, C. and Heinke, M. (2006). Compliance: Crafting Quality Care. *Veterinary Clinics of North America: Small Animal Practice*, 36(2), pp.419-436.

Chapter 6: Outreach - welfare beyond your clinic

Recommendations

To confirm our commitment to the highest animal welfare standards, WSAVA calls on all veterinary associations to support and all veterinarians to promote:

1. activities which improve the welfare of animals not just within the veterinary clinic, but in the broader community.
2. collaboration with other institutions and organisations to promote the understanding of animal welfare across communities.
3. the development of policy and legislation which protects and promotes good animal welfare and responsible pet ownership.

Why should you engage in community outreach?

Concern for the welfare of animals is considered to be integral to veterinary practice and maintaining high standards of animal welfare is essential within the veterinary clinical setting. However, to effectively promote the value of animals in society, veterinarians must extend their animal welfare activities outside their veterinary clinic. Veterinarians may engage in improving animal welfare beyond their walls through community, organisational, national or international outreach.

A 2017 WSAVA global survey of the veterinary profession identified key welfare issues of concern to veterinarians around the world (WSAVA, 2017). Many of these issues, such as a lack of prophylactic medicine, inappropriate feeding and animal behaviour problems, could be addressed by improving the engagement and education of clients by veterinary professionals. Engaging in the promotion of good animal welfare “beyond your walls” has multiple benefits for the veterinary clinic, including enhancing animal health and welfare, improving veterinary-client relationships and promoting the importance of the veterinary clinic as a centre of expertise.

Most animal owners try to care for their animals to the best of their ability and endeavour to keep their pets healthy and “happy”. Although pet owners may think they are providing their pets with the best quality of life possible, this is not always the case. Most owners would not consider that they restrict their animals’ lives in any way, even though most pets lead completely unnatural lives, particularly in terms of their social conditions. It should perhaps not be surprising that owners tend to anthropomorphise and thus misunderstand the needs of their pets. Much of modern society has been exposed, through books and electronic media, to images, cartoons and stories where animals show many human characteristics, living human-like existences and showing human emotions. Veterinary engagement within the community can be effective in promoting better societal understanding of the needs of pet animals, promoting positive welfare and reducing the risk of welfare problems occurring.

Veterinarians can also engage with organisations such as charities, non-governmental organisations (NGOs) or other value-driven organisations, local veterinary associations, research organisations and

academic institutions. By doing so, veterinarians may influence and impact the development of education materials, community education, and initiatives to enhance animal welfare. As the promotion of good animal welfare often relies on changing current management or husbandry systems for animals, veterinarians may work with stakeholders across all sectors to promote positive action and improve animal welfare.

Animal welfare has been described as a complex, multi-faceted public policy issue that includes important scientific, ethical, economic and political dimensions. As it is gaining in importance internationally, there is increasing recognition of the need for animal welfare issues to be addressed objectively in a scientifically credible manner. Veterinarians may contribute to the development of professional guidance, public policy and even legislation by providing robust and scientific information on which to base such developments. Additionally, veterinarians have a role in safeguarding human welfare by recognising animal abuse and neglect, and its link with human abuse.

[Where to start?](#)

The following points should be considered when making the decision to start an outreach program:

- understand what you can afford to give in terms of resources – you need to decide your own constraints of time and finances and what you are able to contribute in a sustainable way.
- prioritise issues that are important or relevant to your clinic and staff – since time and finances will always be limiting, deciding on the issues that are most important to you and your local area will optimise these resources.
- discover who, and then contact the main stakeholders in your area. There may already be people out there in the area you plan to work in. Working with others may allow far greater impact than working alone.
- know what you are legally allowed to do – the regulations on areas such as control of zoonotic diseases and stray animals will vary from region to region and it is important to know the regulations for your own area and any area/s you plan to work in.
- start small, think big, be generous – remember that even the smallest endeavour can have a big impact.

[Levels of outreach](#)

The different levels at which outreach can occur are shown in Figure 12:

Level 1: Community engagement

Veterinary practitioners are incredibly busy: running their own businesses, managing employees, delivering clinical services and striving for excellence in patient care within their clinic. Whilst local community engagement may seem like extra work, in the long-term, veterinarians may reap rewards in terms of positive community engagement, improved client bonding and enhanced reputation. Many veterinary clinics find community-based activities a positive and enjoyable way of raising the profile of their business in the community and promoting the principles of responsible pet ownership.

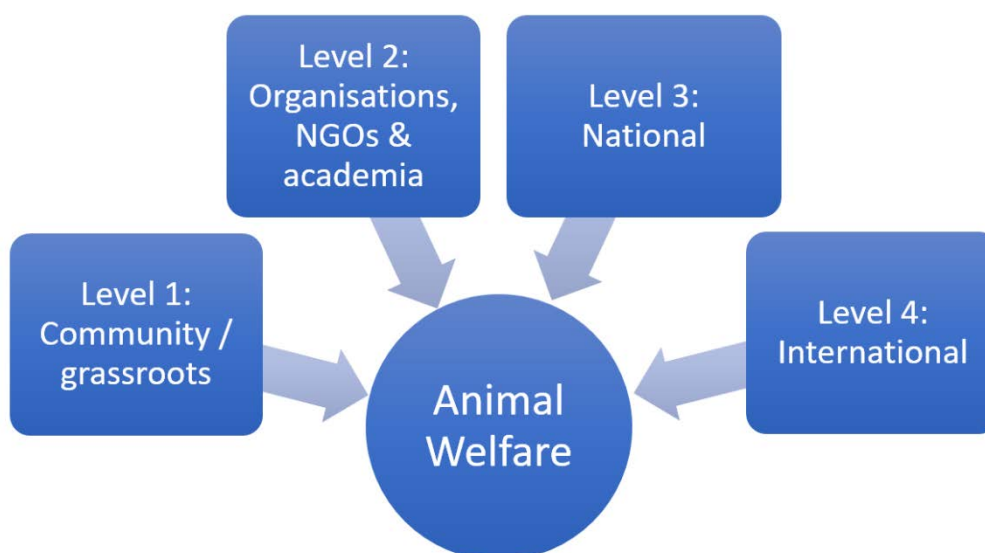


Figure 12. Levels of outreach opportunities range from local to international

Community engagement may be achieved by:

- **Veterinary clinic open days** - Veterinary clinics are familiar environments to veterinary professionals but our clients often have no idea what happens to their pet outside the consulting room or outpatient treatment area. Open days allow veterinarians to guide their clients around the clinic, explain technical equipment and procedures and demonstrate the facilities and care their pets will experience.
- **Dog shows** – Dog owners love their pets and community dog shows can be a great way to encourage owners to show off their much-loved dogs, learn about positive-welfare training methods and better understand what their dogs need. Veterinarians should pay attention to dog welfare throughout – so that dogs are comfortable and healthy, and not stressed by any new experiences. Show-type activities are generally enjoyed much more by dogs who are a social species; cats and other animals will often find these activities more stressful.
- **Donation of time** – Veterinarians may promote responsible pet ownership and encourage clients to take better care of their pets by engaging in local charitable initiatives. Examples might be donation of veterinary time and services such as vaccination, neutering or microchipping services for pet owners on low incomes or in difficult circumstances.
- **Information events** – Many pet owners are interested in learning more about their pets but may find accessing reliable information difficult. Veterinary-led information events such as evening lectures, newsletters or veterinary clinic display boards, can help clients to better understand their pets and to see the enormous wealth of information veterinarians can provide to promote the health and welfare of their pet.
- **School engagement** – Promoting positive attitudes to animals is especially important in school children. Children under the age of 12 years are most at risk of dog bites (Fein et al., 2018), and so learning about animal needs and behaviour is very important so that good animal welfare and human safety are achieved. Pet ownership can instil in children important qualities such as empathy and responsibility, but it is very important that they understand

what their pet needs and how to provide it. Engaging with local schools is a great way to positively influence the relationships between children and their pets.

- **Media (Radio/Newspapers/Television/Internet)** – All of the activities above provide veterinarians with ways of engaging with their communities, promoting their clinical activities and educating people on what they can do to achieve good animal welfare and promote responsible pet ownership. These activities also provide a great opportunity for veterinary clinics to promote their activities through social and traditional media. Events and activities provide a platform to promote the veterinary clinic across the community by creating a “story” that can engage the local community.

Level 2: Organisations, NGOs, Academia

Veterinarians and veterinary clinics can collaborate with local charities, non-governmental organisations, associations, academic or research institutions, and other civil societies to improve animal welfare. By doing so, the impact and reach will go beyond the immediate community and could affect a more sustainable change in society.

Ways to work with these organisations can include the following:

- **Donations** – Many local charities rely on donations to carry out their work and giving a direct donation can assist these organisations to achieve their goals. Donations can be given in different forms including financial, staff time or donations in-kind such as equipment or medicines. A box of de-worming medicine can go a long way for a shelter.
- **Fundraising** - The veterinary clinic or veterinarian can help an NGO to actively raise funds by participating in a fundraising event or even hosting one themselves. Other ways of helping to raise funds can include placing a donation box within the clinics and highlighting the particular NGO in the clinic notice boards, newsletters or through social media.
- **Local veterinary associations and allied groups** – many regional or national veterinary associations offer the opportunity to participate via local chapters or branches and allow a route to influence national associations and professional policies on matters involving animal welfare.
- **Research collaborations** - Academic and research institutions can use data gathered through the veterinary clinic to advance scientific knowledge for the improvement of both veterinary science and animal welfare. Information that can be gathered via the veterinary clinic include data on disease incidences, treatments, information from pet owners, animal behaviour, and many other aspects of animal welfare. Veterinarians can also work with researchers to gather samples or information where veterinary skills are needed such as blood collection or conducting post mortem examinations. In some veterinary schools and colleges, veterinary students participate in research projects before graduation and providing access to data is a great way to help to educate the next veterinary generation.
- **Providing advice and training** - Veterinarians can work with NGOs or animal shelters to provide veterinary advice and staff training on managing the animal population, both within and outside the shelter. Principles of shelter medicine such as biosecurity, sanitation,

preventative healthcare, basic animal assessment and recognition of illnesses are very important to maintain good health and welfare of animals in a shelter.

- **Veterinary services and neutering** - NGOs that work with animals will always need veterinary services including routine procedures such as vaccination and neutering (spay and castration), to diagnosis and treatment of illnesses. Some of these animals will belong to the NGOs, such as animals in the shelter or under foster care, but some NGOs may have programs that work with animals in the communities. Veterinarians and clinics can help these NGOs by providing veterinary services for these animals at low cost or *pro bono*.
- **Neutering voucher scheme** - Veterinary clinics can engage with a local NGO in a voucher scheme to provide neutering to newly rehomed animals or animals in the community that needs assistance. A voucher will usually be issued by the local NGO to animals under the scheme, and these vouchers can be used at participating veterinary clinics to neuter their pets. Through this scheme, neutering is more convenient for the owner and at the same time new pet owners can get acquainted with the clinic.
- **Reporting animal cruelty and domestic abuse** – Clinical veterinarians may see cases that involve potential animal cruelty or domestic abuse. These suspected cases can be reported to the government bodies or NGOs that have been given legal authority to investigate and act against those that go against the animal welfare act, social protection or other similar legislation.

Level 3: National Level

Veterinarians have unique expertise in animal health and welfare and this expertise is valuable in formulating policy, guidance and legislation, at the organisational or national level. Engaging with veterinary associations, providing expertise in response to emergent situations, or developing policy, guidance, or codes of practice can all have a significant impact on the promoting the value of the veterinarian in safeguarding animal health and welfare.

- **Veterinary Associations** – Participating in national veterinary associations through their conferences, committees or specialist divisions supports the development of animal welfare guidelines and policy. Veterinary associations are able to influence the knowledge and practices of the veterinary community as a whole, and may participate in high level consultations, providing expertise to government or policy-development. Veterinarians may choose to participate in committees or join as officers at local and/or national levels.
- **Manpower** – Veterinarians may play a key role in safeguarding animal and human health and welfare during states of emergency by working with decision-makers on contingency planning to minimise the impact of potential disasters or disease outbreaks; providing rural and urban veterinary services to under-served communities with limited resources; and by responding as part of disaster response teams during emergency situations such as fire, flood, earthquake or other emergency situations e.g. vaccination response in disease outbreaks.
- **Data collection and analysis** – Prioritising animal health and welfare problems can be challenging. Veterinarians can contribute to effective policy development and prioritisation by collecting information through public health and disease surveillance activities, reporting

societal concerns and analysing potential risks. For example, veterinarians are in a unique position to identify risks such as domestic violence to vulnerable people by reporting similar violence which is often seen in vulnerable pets.

- **National projects** – Veterinarians provide a community of coordinated professionals that can help to support positive changes for animal welfare by sending consistent messages to the public and governments around animal welfare issues. e.g. raising awareness of breed-specific health problems, making recommendations for early neutering in cats and dogs etc.

Level 4: International

Veterinary education and training, and the roles of veterinarians in communities vary significantly around the world. So too does the value societies place on animals and the provision of veterinary services for these animals. International outreach and engagement with global veterinary associations, NGOs and others can support the development of community and veterinary education as well improvements in animal health and welfare. As a member of a global community, veterinarians are better able to promote and advocate for animal welfare to an international audience.

- **WSAVA and other veterinary associations** – There are a number of international associations in the global veterinary community. These, like WSAVA, play an important role in providing guidance and education for veterinarians, veterinary para-professionals and the public on matters of animal health and welfare. Various membership options are available, dependent on the organisation, and individual veterinarians usually join through their local or national association. Individuals can utilise the guidelines or standards set by these international organisations or can share their knowledge and skills as a contributing member.
- **International NGOs and INGOs** – International NGOs and inter-governmental agencies, such as the OIE, provide direction for global animal welfare movements. They may carry out international projects, develop strategies for veterinary capacities, set standards, facilitate multi-sectoral collaborations, and shape international policy on animal welfare issues. Veterinarians may become involved by working directly with the NGOs or INGOs, or indirectly through the influence of their national veterinary associations, local NGOs, or the government.
- **Cross-border volunteering** – There are many volunteer opportunities for the veterinary professional outside one's home country. These volunteer positions or projects are most often organised by an NGO, veterinary association or government, and can provide a unique experience while contributing to health and welfare of animals and to the communities they live in. Veterinarians who volunteer should cautiously select projects that are socially responsible, adhere to local legislation, are respectful of local cultures, and are able to provide sustainable benefits to the community and its beneficiaries.

Challenges in outreach

While there are many advantages to doing outreach work, there can also be some potential risks that need to be considered. It is very important to do some background research before getting involved

any group or organisation to ensure the aims and values of that group align with your own beliefs. If they do not then disagreements are likely to result, with neither party happy with the result. When working in other areas, particularly in developing countries, it is important not to undermine the local veterinarians but to work together with them as much as possible.

When joining an existing overseas program, it is also important to make sure that the work will have real benefits to those it is aiming to help and is not just “voluntourism” without social responsibility (Snyder, Dharamsi and Crooks, 2011). Additionally, it is important that animals receiving veterinary support via charities or volunteer work are given the same minimum standards of veterinary care as privately-owned animals, e.g. pain relief should always be provided for surgery or other painful procedures, good aseptic standards should be maintained. Finally, it is always important to work within the limits of your own knowledge. Animals in volunteer projects should not be used for you to practice on, or merely to develop your own skills, the activity must benefit them. Areas such as shelter medicine or providing emergency relief to flood or fire victims are specialist fields, and you may not have the skills and knowledge necessary to make a positive impact. Being aware of these potential pitfalls and adequate preparation will help to prevent them from occurring.

Conclusion

The multitude of shapes and sizes of outreach programs ensure that there is likely one that suits every veterinarian. Not every veterinarian will want to speak on radio or television, but outreach programs even from within their own veterinary clinic can still be highly effective. By starting small and with generosity, and doing your homework to avoid potential traps, all veterinarians can positively influence animal welfare.

Checklist

- ✓ Have you thought about outreach programs you or your veterinary clinic could develop?
- ✓ Do you know which NGOs or other organisations have active programs in your area?
- ✓ Are you a member of your regional Association? Could you work together to make positive changes to animal welfare policy?
- ✓ Consider how you might collaborate with other veterinarians or veterinary organisations to improve animal welfare in your region
- ✓ Do you apply the same minimum standards of veterinary practice to charity projects as to private practice? e.g. effective pain relief, alleviation of suffering, appropriate facilities for hospitalisation etc.

References

Fein, J., Bogumil, D., Upperman, J. and Burke, R. (2018). Pediatric dog bites: a population-based profile. *Injury Prevention* Published Online First: 08 February 2018. <https://doi.org/10.1136/injuryprev-2017-042621>

Snyder, J., Dharamsi, S. and Crooks, V. (2011). Fly-By medical care: Conceptualizing the global and local social responsibilities of medical tourists and physician voluntourists. *Globalization and Health*, 7(1), p.6.

WSAVA, 2017. Unpublished data.

Toolkit

Topic	Resource
Animal Welfare Charter	Charter for Compassion: http://www.charterforanimalcompassion.com/ RSPCA Australia: http://kb.rspca.org.au/RSPCA-Australia-animals-charter_316.html
Animal Welfare learning	WSAVA Animal Welfare Modules: http://www.wsava.org/Committees/animal-wellness-and-welfare-committee World Animal Protection - Concepts in Animal Welfare: http://www.globalanimalnetwork.org/search/training
Behaviour Guidelines & Protocols	2015 AAHA Canine and Feline Behavior Management Guidelines: https://www.aaha.org/professional/resources/behavior_management_guidelines.aspx AAHA's Model Behavior Management Protocol: https://www.aaha.org/professional/resources/behavior_management_model_protocol.aspx
Condition Score Charts (cats)	Body Condition Score: http://www.wsava.org/WSAVA/media/Arpita-and-Emma-editorial/chart_cat_horiz-June-2017.pdf Muscle Condition Score: http://www.wsava.org/sites/default/files/Muscle condition score chart-cats.pdf
Condition Score Charts (dogs)	Body Condition Score: http://www.wsava.org/WSAVA/media/PDF_old/Body-condition-score-chart-dogs.pdf Muscle Condition Score: http://www.wsava.org/WSAVA/media/Documents/Committee Resources/Global Nutrition Committee/Muscle-condition-score-chart-2013-1.pdf
Environment (clinic & home)	AAFP and ISFM Feline Environmental Needs Guidelines: http://journals.sagepub.com/doi/pdf/10.1177/1098612X13477537
Ethics	Animal Ethics Dilemma: http://www.aedilemma.net/
Euthanasia Guidelines	AVMA Guidelines for the Euthanasia of Animals: https://www.avma.org/KB/Policies/Documents/euthanasia.pdf BVA (British Veterinary Association) Euthanasia of animals: http://www.bva.co.uk/Workplace-guidance/Ethical-guidance/BVA-Euthanasia-Guide/ IFAW (International Fund for Animal Welfare): http://www.ifaw.org/united-states/resource-centre/welfare-basis-euthanasia-dogs-and-cats-and-policy-development
Euthanasia Policy	DVM360 Sample Euthanasia Protocol: http://veterinaryteam.dvm360.com/euthanasia-protocol Oregon State University Veterinary Teaching Hospital: http://128.193.215.68:12469/vth-policies/VTH/SA/AAHA Standards/PC59-Euthanasia-protocol.pdf

Forensic Forms	Veterinary Forensics http://www.veterinaryforensics.com/forms/
Handling & Restraint	AAFP and ISFM Feline-Friendly Handling Guidelines: http://journals.sagepub.com/doi/pdf/10.1016/j.jfms.2011.03.012 Dove & Lewis: https://www.atdove.org/ Fear Free Pets: https://fearfreepets.com/veterinary-professionals/ Low Stress Handling – Dr. Sophia Yin: https://www.lowstresshandling.com/
Mobile apps	Dog Bite Prevention Strategy: Apple: https://dog-bite-prevention-strategy-ios.soft112.com/modal-download.html Android: https://dog-bite-prevention-strategy-ios.soft112.com/modal-download.html
Nursing care	AAFP and ISFM Feline-Friendly Nursing Care Guidelines: http://www.catvets.com/public/PDFs/PracticeGuidelines/NursingCareGLS.pdf
Nutrition Guidelines	WSAVA Global Nutrition Guidelines: http://www.wsava.org/Guidelines/Global-Nutrition-Guidelines
Pain Guidelines	WSAVA Global Pain Council Guidelines: http://www.wsava.org/Guidelines/Global-Pain-Council-Guidelines
Pain Scales for cats	Colorado State University Feline Acute Pain Scale: http://www.vasg.org/pdfs/CSU_Acute_Pain_Scale_Kitten.pdf UNESP-Botucatu multidimensional composite pain scale (MCPS): http://www.animalpain.com.br/assets/upload/escala-en-us.pdf
Pain Scales for dogs	Colorado State University Canine Acute Pain Scale: http://www.vasg.org/pdfs/CSU_Acute_Pain_Scale_Canine.pdf Glasgow Composite Measure Pain Scale (CMPS-SF): http://www.wsava.org/WSAVA/media/PDF_old/Canine-CMPS-SF_0.pdf Helsinki Chronic Pain Index (HCPI): https://www.fourleg.com/media/Helsinki_Chronic_Pain_Index.pdf Canine Brief Pain Inventory (Canine BPI): http://www.vet.upenn.edu/research/clinical-trials/vcic/pennchart/cbpi-tool
Veterinary Oath	WSAVA Veterinary Oath: http://www.wsava.org/Guidelines/WSAVA-Global-Oath

Glossary

Pain:

- **Definition:** pain is a complex multi-dimensional experience involving sensory and affective (emotional) components. Pain is defined by the IASP as “an unpleasant sensory and emotional experience, associated with actual or potential tissue damage, or described in terms of such damage” (International Association for the Study of Pain, 2018). In cats and dogs, behavioural signs and knowledge of likely causes of pain are used to guide its management. Furthermore, it is a subjective emotional experience which can be modified by behavioural experiences including fear, memory and stress.
- **Diagnosis/Recognition:** because pain can be subtle in its presentation or varied depending on individual patient demeanour, a thorough review of **WSAVA Pain Guidelines** is suggested (WSAVA, 2014).
- **Treatment Options:** due to the variability of medication availability and causes of pain, options should include understanding of animal behaviour, patient handling techniques, pharmaceutical therapies available, and at the extreme, potentially euthanasia methods to relieve intractable pain in e.g. terminal disease.
- **Prevention:** pain is best prevented if an assessment is made in advance of a procedure that may cause pain or after diagnosis/recognition of a painful event. Ideally, pain is addressed pre-emptively where possible.

Suffering:

- **Definition:** the subjective experience of unpleasant emotions such as fear, pain and frustration.
- **Diagnosis/Recognition:** disease and pain have/will induce suffering, but other causes must be considered, such as environmental, behavioural, nutritional and social needs that may be unmet.
- **Treatment and Prevention Options:** are many, and some may be addressed by recognition of the fact in a particular patient presentation. Other factors again may influence, including pharmaceutical availability.

Injury:

- **Definition:** physical, psychological or emotional damage.
- **Diagnosis/Recognition:** physical injury may or may not be difficult to localise. Severe injuries are usually manifest with often obvious physical signs, while subtle injuries require experienced medical assessment for diagnosis. Emotional and psychological injury may be manifest as overt aberrant behavioural signs or more subtle changes in demeanour or personality. Expert veterinary review and opinion are needed.
- **Treatment and Prevention:** treatment is dependent on biological system involved, while prevention can cover many areas, but especially relates to providing a safe, secure and psychologically sound environment.

Disease:

- **Definition:** a disorder of structure or function especially one that produces specific clinical signs or that affects a specific location and is not simply a direct result of physical injury. (Oxford English Dictionary, 2018)
- **Diagnosis/Recognition:** to properly recognise and therefore provide treatment options, the veterinary clinician ideally has a protocol or steps to diagnose/recognise disease states in his patients. Examples are the 5 Vital assessments to be made on a patient, where appropriate: Temperature, Pulse, Respiration, Pain, Nutrition (Freeman et al., 2011). Further diagnostics can be decided on after this initial process
- **Treatment Options:** treatment of a condition should be based on what is the best available option for patient outcome, comfort and welfare. It is understood that factors such as culture, financial, prognosis, and emotional attachment are likely to affect this.
- **Prevention:** examples can be as simple as recommending vaccinations and providing client and staff education of local diseases and illness. The veterinarian needs to continually update her/his knowledge on best preventative knowledge and be aware of the potential diseases in the surrounding community. With the increasing travel habits or the global community, some knowledge of diverse disease is desirable, thus continuing education is of utmost importance.

References

Freeman, L., Becvarova, I., Cave, N., MacKay, C., Nguyen, P., Rama, B., Takashima, G., Tiffin, R., Tsjimoto, H. and van Beukelen, P. (2011). WSAVA Nutritional Assessment Guidelines. *Journal of Small Animal Practice*, 52(7), pp.385-396.

International Association for the Study of Pain (2018). IASP Terminology - IASP. [online] IASP-pain.org. Available at: <https://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1698> [Accessed 8 Jun. 2018].

Oxford Dictionaries | English. (2018). *disease* | *Definition of disease in English by Oxford Dictionaries*. [online] Available at: <https://en.oxforddictionaries.com/definition/disease> [Accessed 23 Jun. 2018].

WSAVA (2014). *Global Pain Council Guidelines*. [online] <http://www.wsava.org/Guidelines/Global-Pain-Council-Guidelines>. [Accessed 8 June 2018].

Acknowledgements

These guidelines were produced by the Animal Welfare Guidelines Group (AWGG), a sub-committee of WSAVA's Animal Welfare and Wellness Committee (AWWC) and were made possible with the generous support of the committee's sponsor, Waltham®.



These guidelines would not have been possible without the strong support and input from the following members of the AWWC throughout the development process:

- Melinda Merck DVM (USA)
- Theresa (Tess) Kommedal DVM, ABVP (Norway)
- Karyl Hurley DVM, DACVIM, DECVIM-CA (USA)
- John Rawlings BSc, MSc, PhD (UK)
- Sira Abdul Rahman BVSc, MVSc, PhD (India)
- Sheilah Robertson BVMS, PhD, DACVAA, DECVA, DCAW, DECAWBM, CVA, MRCVS (USA)

The AWGG would also like to thank Franck Meijboom MA, PhD (University of Utrecht) for his ethical insights; Melinda Merck DVM for her input on animal abuse and forensics; Anne Jackson MA, VetMB, PhD Editor-in-Chief, Australian Veterinary Journal and the Australian Veterinary Association for their invaluable editorial advice and assistance.

Appendix 1: Developing a Standard Operating Procedure for handling suspected animal mistreatment or abuse

Every veterinary clinic should have policies, procedures and plans for handling cases of suspected animal mistreatment or abuse. The clinic should develop a standard operating procedure (SOP) for these suspected cases and all veterinary staff should be aware of and trained in the provisions of the SOP.

It is recommended that the SOP should include an always accessible reference repository (e.g. a physical or virtual folder) of all relevant information and protocols.

This repository should contain several key components:

- A copy of the applicable animal protection/cruelty laws;
- A copy of the applicable veterinary regulations including mandatory reporting requirements, immunity provisions for the veterinarians and/or staff, any further liability protection;
- Contact information for the agencies, departments and/or officials responsible for cruelty, /mistreatment/abuse investigations, including after-hours and emergency contact details;
- Clear lines of authority within the veterinary clinic for the authorisation/approval of the reporting of suspected abuse;
- A protocol for handling of live and deceased animals:
 - documentation, chain of custody, photographs, records;
 - various documentation forms are available online (Merck, 2018).
- A protocol for the handling of an animal after reporting a suspected case:
 - the investigating agency and/or prosecuting office should provide input on the legal protocol for retention and protection of the animal, whether living or deceased;
 - any deceased animal should be held post-examination until released is authorised by the investigating agent or prosecuting office.

References

Merck, M. (2018). *Veterinary Forensics Forms*. [online] [veterinaryforensics.com](http://www.veterinaryforensics.com). Available at: <http://www.veterinaryforensics.com/forms/> [Accessed 12 Jun. 2018].