Abstract

Veterinary assistance is an essential component of the process of wildlife rehabilitation. Unfortunately, many veterinary practitioners have little interest in, or experience with wildlife, and some refuse to assist with wildlife cases at all. Thankfully, a proportion of private practitioners regularly assist carers with wildlife but with a variable degree of competence. It is therefore important that wildlife rehabilitators and carers become as knowledgeable as possible about the species with which they are dealing, as well as becoming proficient in performing a thorough examination. These skills can greatly assist a veterinarian in the diagnostic work-up and management of a case and help to build a lasting and useful relationship between veterinarian and rehabilitator. This paper outlines some of the ways that a carer or rehabilitator can make a visit to the veterinarian as smooth and productive as possible.

It discusses building the carer-veterinarian relationship, preparation for the visit to the vet, expectations and attitudes, costs of veterinary care, decisions to euthanase, and responsibilities of both carer and veterinarian.

BUILDING A RELATIONSHIP WITH A VETERINARIAN

Professional veterinary assistance is an important, even essential, component of wildlife rehabilitation. Many of the animals presented for care by rehabilitators will be suffering from varying degrees of injury or illness. Some, such as orphaned joeys, may be healthy and uninjured at the time of presentation, but may develop illness such as diarrhoea, during the rehabilitation or handrearing process. In many cases, veterinary assistance will be required to accurately diagnose, treat or manage these cases. In addition, registered veterinarians are the only people legally permitted to prescribe restricted and controlled drugs for the treatment of animals.

It is therefore important that all wildlife rehabilitators develop a healthy working relationship with a registered veterinarian. If possible, that veterinarian should have some interest in, or passion for wildlife. Understandably, in rural and/or remote areas this may be difficult; nevertheless, most practicing veterinarians are prepared to give some assistance to wildlife rehabilitators. It is a fact of life that the level of support and competence will vary enormously from veterinarian to veterinarian, as will the fees charged for services and drugs for wildlife. Sometimes, keen veterinarians are unable to provide thorough veterinary assistance for wildlife cases because the practice owner will not let them.

Patience and understanding are important virtues to possess when building a relationship with a veterinarian. Most practices are very busy, so being demanding of time or impatient is the fastest way to destroy a relationship. In addition, giving assistance to the veterinarian in terms of being well educated, having performed an examination already, having recommended drugs and dose rates at your fingertips, all make his or her job easier and less time consuming.
Preparation for the veterinary visit:

If possible, give some thought to making preparations prior to the visit to the veterinarian.

1. Always ring first to make an appointment - turning up unannounced can be annoying to a veterinarian, particularly on a very busy day.

2. Take the animal in an appropriate container or box, so that it is secure, warm and not visible to, or able to see dogs etc. Sometimes it may be necessary to leave the animal at the surgery - if it is not already securely contained it may be put into a cage in the kennel room beside a noisy dog, which is obviously less than ideal.

3. Prepare a clear, concise and succinct history and description of the problem. The veterinarian will not want to listen to a long-winded and irrelevant account of the life of the animal.

4. If possible, conduct and record the details of your own examination to reduce the chance of lesions or injuries being overlooked. This occurs commonly, particularly in busy practices or if the veterinarian is not particularly interested in wildlife.

5. Make sure that you have a current and accurate weight of the animal, so that accurate drug doses can be calculated. Take with you a list of commonly used drugs (particularly anaesthetics, analgesics (pain relief) and antibiotics) for that species.

6. Take along any samples that may be required such as a recent urine and faecal sample. These should be in clean specimen containers that are appropriately labelled with the animal's ID, time of collection and type of sample. Samples should be refrigerated (not frozen) unless they are to be examined immediately.

7. Take along any daily records and containers of drugs previously prescribed for the animal.

8. DO NOT give food or oral fluids to animals that may need an anaesthetic - it dramatically increases the risk of regurgitation and aspiration (inhalation). If possible starve adult animals for at least 12 hours prior to anaesthesia.

Expectations and Attitudes:

On arrival at the veterinary clinic check in with the receptionist and advise how urgent your case is. If the surgery looks busy, it may be worthwhile asking the receptionist what the waiting time is likely to be, and be prepared for a long wait.

The attitudes of veterinarians towards wildlife and wildlife carers varies enormously, as does their experience and competence. It is therefore essential that a carer learn as much as possible about the species they are dealing with, including common injuries and illnesses, recommended anaesthetics, sedatives, antibiotics and pain relief, and dose rates. This will greatly assist a veterinarian who is keen, but does not have specific knowledge of the species.

Veterinarians will also vary greatly in their use of diagnostic aids in working up a wildlife case. Some are only prepared to do a cursory examination with no other work-up, whereas others will be prepared to perform blood work, faecal examination and radiography. Most wildlife cases will need at least some use of diagnostic aids in addition to a full clinical examination. Veterinarians vary in their use of sedation and anaesthesia for wildlife. In my experience, sedation and anaesthesia are essential for performing a thorough examination on most wildlife cases. You can encourage reluctant veterinarians to use anaesthesia by giving them papers detailing recommended anaesthetics and sedatives for various species of wildlife.

Failure to use or be proficient at diagnostic aids, such as faecal examination, is one of the most common reasons for treatment failure.
For example:

One of the most common causes of diarrhoea in young handreared joeys is candidiasis, an overgrowth of a yeast called Candida. This is a fungal infection, which will not respond to antibiotics, in fact it will often get worse with antibiotic treatment. It is easily and quickly diagnosed by examination of a faecal wet preparation under the microscope.

Two things are required for a veterinarian to diagnose candidiasis:

1. Examine a faecal specimen microscopically, and
2. Familiarity with the appearance of yeasts microscopically. Failure of one or both of these requirements often leads to the prescription of antibiotics to treat the diarrhoea, and ultimately treatment failure.

To counteract the potential for such a failure, an experienced carer would:

1. Know that candidiasis is the most common cause of diarrhoea in joeys.
2. Have a suspicion of candidiasis, based on the history and type, smell and consistency of the diarrhoea.
3. Ask the veterinarian to examine a wet prep of a fresh faecal sample (collected prior to the veterinary visit) to look for yeasts.
4. Have a photograph or diagram of yeasts as they appear under a microscope (in case the veterinarian is unfamiliar with them).
5. Have a differential diagnosis for the diarrhoea (a list of other causes: bacterial, protozoal, dietary, flora imbalance, overfeeding etc)
6. Have a document outlining the preferred treatment regime for candidiasis in joeys.

Preparing and sharing this information with your veterinarian (in a diplomatic way) can help to enhance the relationship, stimulate interest in wildlife medicine, and reduce the reluctance of a veterinarian to deal with unfamiliar species and conditions. Veterinarians have generally received no specific training on wildlife and will appreciate information that helps them to competently deal with your cases.

Conversely, having a “know-all” attitude, being disrespectful, being critical of lack of knowledge and failing to use diplomacy and tact, will all lead to a breakdown of the carer-veterinarian relationship, and ultimately limit the standard of care provided. Try to nurture and encourage a veterinarian that shows interest by providing knowledge, scientific papers and articles, being patient and understanding, and providing a list of telephone numbers or email addresses of experienced wildlife veterinarians who can provide professional advice to the veterinarian.

Finally, try not to stretch the friendship. Recognise that wildlife work is generally not a lucrative line of business for practicing veterinarians, and their priorities are generally to full fee paying clients. Needless to say, if you are paying full fees, then you deserve an excellent standard of care and competence. Overusing a veterinarian who is providing wildlife services for free will end up leading to resentment and possibly breakdown in the relationship.
Costs of veterinary care, diagnostic aids and medication

Costs of veterinary services for wildlife are generally borne partly by the veterinary practitioner and partly by the wildlife carer. Some veterinary practices charge full fees for wildlife work, possibly to discourage use or overuse of their services by wildlife rehabilitators. Whatever the reason, if you are paying full fees for veterinary services you should expect a high standard of care and competence from the veterinarian. I suspect that this is often not the case though.

Most veterinarians will give some level of discount for services and/or drugs for wildlife work:

The following example gives standard veterinary fees for examination and treatment of a 1.5 kg eastern grey kangaroo with a simple midshaft fracture of the metatarsal bone, compared to charges by one veterinary surgery that provides services to wildlife carers:

<table>
<thead>
<tr>
<th>Service</th>
<th>Standard Charge</th>
<th>Discounted Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation</td>
<td>$38</td>
<td>$0</td>
</tr>
<tr>
<td>General anaesthetic</td>
<td>$75</td>
<td>$0</td>
</tr>
<tr>
<td>X-rays</td>
<td>$75</td>
<td>$10</td>
</tr>
<tr>
<td>Fluid therapy (subcut.)</td>
<td>$25</td>
<td>$0</td>
</tr>
<tr>
<td>Bandage and splint</td>
<td>$45</td>
<td>$10</td>
</tr>
<tr>
<td>Pain relief</td>
<td>$15</td>
<td>$5</td>
</tr>
<tr>
<td>Total</td>
<td>$273.00</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Drug prescriptions and costs:

Generally, to a full fee-paying client, restricted or S4 drugs are marked up by 100% and then a dispensing fee is added.

For example: a bottle of Clavulox Oral drops might cost:

$$10.50 \text{ (cost to vet)} + 10.50 \text{ (100% mark-up)} + 8.00 \text{ dispensing fee} = 29.00$$

A fair discount given to wildlife carers is cost price of the drug plus 10% plus GST without a dispensing fee.

$$10.50 \text{ (cost to vet)} + 1.05 \text{ (10% markup)} + 1.16 \text{ (GST)} = 12.71$$

Diagnostic aids:

Faecal examination will generally be charged (full fee) at around $25 depending on the clinic. The costs to the veterinarian are for slides, coverslips, faecal floatation solution, stains, faecal floatation containers and time (nurses for set-up and veterinarian for examination and interpretation). Many veterinarians assisting with wildlife may not charge for a faecal examination or charge only a minimal fee.

Blood tests, cultures, histology and other lab services that are performed at external laboratories are expensive and these expenses cannot be expected to be borne by the veterinarian.

Examples of standard fees for some other services are:

- Sedation (eg diazepam): $15-25
- Anaesthesia (mask isoflurane): $45-85
- Intravenous fluids: $50-115
- Full blood tests: $90-115
- Faecal culture: $65-80
- Surgery: $250-800 per hour
- Injections: $12-18
- Stained smear examination: $25-30
- Urinalysis: $15-25
Clearly, veterinary services are not cheap, so be thankful if your veterinarian gives significant discounts for wildlife work. Gifts of alcohol, chocolate, morning tea etc will help to cement a developing relationship, and I certainly encourage that in the carers that I deal with.

**Responsibilities of the veterinarian**

Veterinarians have certain inherent obligations to act in a professional, compassionate and ethical way towards animals. In effect, it is unethical of a veterinarian to refuse to treat or euthanize a seriously injured or sick animal if it is presented to a veterinary clinical or surgery. However, under current legislation (at least in Queensland) that obligation is not enforceable from a statutory point of view, unless there has been clear and gross misconduct by the veterinarian.

For example: if you have just rescued a kangaroo suffering from motor vehicle trauma and take it to the nearest veterinarian for euthanasia, then that veterinarian has an ethical obligation to provide assistance. However, if he or she refuses to see the animal, then there is little recourse for the rescuer other than to try another veterinarian.

The Animal Care and Protection Act (Queensland) applies the general principle of “duty of care” to all persons “in charge of” animals. This includes veterinarians and wildlife carers. The act states that a person in charge of an animal must take all reasonable steps to ensure that its welfare is looked after, including the provision of veterinary care if required.

**Responsibilities of the carer**

Similarly, wildlife carers and rehabilitators have certain inherent responsibilities from an ethical standpoint. Animals that have serious injuries or illness must be given the benefit of veterinary attention if it is reasonably available. It is so important to develop a working relationship with a veterinarian based on trust, mutual respect and shared learning, so that urgent and critical cases can be assured of a high standard of care. Animals in care should not be forced to suffer without veterinary care because of a breakdown in the relationship between a carer and veterinarian. Particularly if that breakdown has occurred because a carer has been overly demanding, disrespectful or a know-all.

It is also very important to carefully and diligently follow the prescription instructions for drugs used to treat wildlife. It is very poor form to obtain services and drugs from one veterinarian, then seek different opinions from either other veterinarians or carers. This almost inevitably leads to multiple different opinions, and is a good way to damage the relationship with the veterinarian. In contrast, it is good form to give feedback to the treating veterinarian on how the treatment is progressing, whether it is going well or poorly. It is gratifying to be advised when a treatment is working well, and very important to know when a treatment is not working, so that it can be reviewed.

**Decisions to perform euthanasia**

One of the most important veterinary procedures performed to relieve suffering in sick and injured wildlife is euthanasia. Euthanasia is not an admission of failure. It is a compassionate outcome in cases which have little chance of recovery, or high likelihood of suffering. Euthanasia of wildlife is dealt with in greater detail in another paper in these proceedings.

Euthanasia should be a decision based upon a full clinical examination, diagnosis and prognosis (likelihood of recovery). Often this requires veterinary input, although in some cases the requirement for euthanasia will be obvious. Far too many animals are kept by wildlife rehabilitators when they should be euthanized on humane grounds. This is one area that needs improvement in the wildlife rehabilitation business, which can be achieved with appropriate courses and training on the principles and practice of euthanasia.
A note on dropping off samples and necropsies:

Sometimes it is necessary to just drop off a sample (such as faeces or urine) for a follow-up test, or to check for Candida, worms or other parasites. In these cases it is recommended that you

1. Call the veterinarian to check whether they will need to see the animal as well - let the veterinarian make that decision based on his or her clinical judgment.
2. Supply the freshest sample possible. Store refrigerated and transport to the veterinary surgery in an esky with a cold block.
3. Supply samples in clean jars or containers with tight-fitting lids.
4. Mark the containers with ID, date collected and nature of the sample.
5. Provide a brief history with the sample. Clearly state the nature of the problem, duration of clinical signs and previous treatment. Make suggestions about what the problem might be eg: “Please check for Candida.”
6. Ask the receptionist when you should ring for results.
7. Be patient if results are not ready on time - performing faecal examinations are rarely a priority on a busy day.
8. If culture of faeces or urine is required, then method of collection, sample jar required and the reason for the test should be discussed with the veterinarian prior to sample collection. The sample should then be clearly labelled “For culture and sensitivity”. Otherwise the wrong tests may be conducted.

On occasion it is useful to have a necropsy (post mortem) examination conducted on an animal that has died or been euthanased, particularly if it has died unexpectedly, or if there has been a series of similar deaths. The usefulness of necropsy examination deteriorates as the carcase does - rapidly at warm temperatures or if bacterial infections have caused death.

If a necropsy examination is required, remember these points:

1. Store the carcase in the bottom of the refrigerator immediately. It may be securely wrapped in plastic bags, but avoid the temptation to wrap it up in a blanket, towel or pouch - that will retain the heat and promote autolysis (cell deterioration) and putrefaction (bacterial action). DO NOT FREEZE. The ability of the veterinarian to interpret pathologic changes in a carcase is severely impaired by freezing and thawing.
2. The gastrointestinal tract deteriorates rapidly after death, so if GI disease is suspected, try to get a necropsy examination performed immediately.
3. Microscopic examination and sometimes culture of tissues is generally required for a meaningful interpretation of the necropsy examination. These are expensive: $100 + for histopathology and $60 + for each culture, and will need to be specifically requested during a discussion with the veterinarian.
4. A definitive diagnosis will usually only be determined in approximately 50% of cases - many necropsies will not result in satisfactory answers.
5. Sometimes animals will die from diseases (infections) that are zoonotic, that is: they can cause human disease. Always handle carcases and body fluids in a hygienic way, and disinfect contaminated objects and surfaces immediately.
6. Understand that necropsy examinations are not a priority on a busy day. Discuss the case with the veterinarian prior to presenting the carcase and provide a written history with the carcase. Clearly state whether you are prepared to pay for further testing of tissues if that is deemed useful by the veterinarian after conducting the gross necropsy examination.
In summary: the Golden Rules of working well with the veterinarian.

1. Be patient, understanding and respectful, especially on busy days.
2. Be informed and educated and share that education with the veterinarian.
3. Be prepared: accurate history, fresh samples, recommended drugs and doses.
4. Give feedback on how treatment is going and final outcomes for every case that the vet has been involved in.
5. Use of restricted (S4) or controlled (S8) drugs for treatment of animals must be in accordance with the prescription of a registered veterinarian.
6. Shower the veterinarian with gifts if you are getting good discounts.