

NEWSLETTER JANUARY

In this newsletter:

- **Happy 2025!**
- Good news!
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Dear clients,

A new year, a new look! What do you think? We will greatly appreciate your feedback; whether it is positive or not! We start the newsletter with some good news, and we hope you will join the New Year's Resolutions we made. The last topic is how about how we manage to medicate our wild patients. We hope you enjoy the newsletter! Kind regards, the Wildlife Vets Namibia team

HAPPY 2025!

We have entered 2025 and before we start off with our newsletter, we want to thank all everybody for your support and dedication to wildlife ranching and conservation! 2024 was not an easy year for many due to the persistent drought in Namibia. Despite these challenges, the resilience of Namibian farmers is amazing, and we remain hopeful for a good and prolonged rainy season.

Of course, we hope to be of your assistance again this year, and we are looking forward to be in the field as much as possible! We wish you a wonderful 2025, in good health and lots of happiness!

Kind regards, the Wildlife Vets Namibia team



GOOD NEWS!

Let's start the newsletter with some great news... Drumrolls...

You will recall the big elephant translocation from Mount Etjo in Namibia to the Cuatir Nature Reserve in Angola. Six of the translocated elephant cows have already calved! An excellent sign indicating that the elephants are completely at home and doing well! The Cuatir Nature Reserve has already received good rains and the grass is standing high. The elephants are now mostly on the grass plains enjoying the lush grass. If you want to receive updates on how the elephants are doing are doing, please follow the social media channels of Cuatir.



How to move 26 elephants? Check it out via this YouTube video!





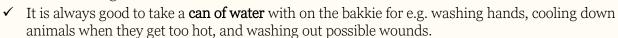
NEW YEAR'S RESOLUTIONS

Have you made any New Year's resolutions? Ours is to be of even better assistance to you! To keep things running as smoothly as possible in 2025, here are a few key points we'd like to highlight:

✓ If you have any **big jobs** planned for 2025, please inform us well in advance about when, and what needs to be done. Then we can ensure that we book enough time for you, and bring the right drugs, equipment etc. Speak to your **neighbours and surrounding farms** if they need wildlife work done, this way we can share the kilometre fees, making it cheaper for everyone.

of special requests:

- Pet vaccinations
- o Any kind of surgery (e.g., dog/cat castration)
- o Pregnancy diagnosis (we do not standard carry the ultrasound machine along, since this is a high value and sensitive machine)
- o Microscopic examination (as with the ultrasound machine, the microscope is sensitive equipment that we do not carry around all the time)
- o Horn capping equipment. To protect horns against wearing off, we can put caps and/or sleeves over the horns.
- Hoof grinder. If you have an animal with long hooves, let us know in advance so we can bring our hoof grinder with.
- ✓ If antelope work needs to be done, please have **plastic pipes** ready that we can put over the horns. This is to protect all those standing on the back of the bakkie.



✓ When you apply for your game capture permits, make sure you apply for <u>all species</u>, and <u>include your management plan</u>. This makes it easier for game dealers to buy your animals for the export market.

We are looking forward to this new year, and we hope you too!



Especially in smaller camps with sandy soils, hooves

can become too long, and can grow in a wrong way.

Long hooves are prone to break, which will cause severe

pain for the animal. This will negatively impact on

foraging- and mating behaviour and normal

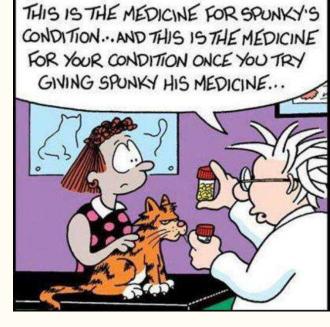
locomotion. © M. Bijsterbosch



HOW TO MEDICATE WILDLIFE

Let's say your dog is sick. You take it to the vet, and the vet gives you tablets that you must give to good-old Fluffy. Fortunately, Fluffy loves food, so you put the tablet in some meat, and she gobbles it away. Everybody happy! If only it was that easy in wildlife...!

It can be quite challenging to give medication to wildlife. With captive animals we can try the 'tablet-in-food approach', but for most of our patients we cannot get close enough.



Medicines that sometimes need to be given to wildlife are diverse, these could be antibiotics, vaccines, anaesthetic, tranquilizer, anti-parasitic drugs etc. Many of our patients do not come when you call them, in fact, if we get to close we might get eaten or stabbed! This means in many cases we either have to immobilize an animal to administer medication, or we administer the medication itself via a dart.

In this short article we dive into the ways how we can administer medication to animals, and in particular wildlife. We call this 'drug administration'. This means giving a drug via a certain route, to enter the body so it can work (i.e. achieve a therapeutic effect).



A photo from way back! Giving a supplement to a habituated leopard.

Oral route

The oral route means that a substance (liquid, tablet, capsule etc.) is taken in the mouth, swallowed and processed in the body via the digestive tract. We don't often use this route when we need to give medication to wildlife – it is just not very easy to persuade a wild animal to eat a tablet twice a day!

The nice thing about the oral route is that it is painless, and it can be quite easy to give in for example habituated animals. The downside is that it takes quite a bit of time to start working. When the drugs get administered orally, the drugs travel via the gastrointestinal tract to the liver, and then gets distributed to the target tissues. By this time, part of the drugs might already be metabolised by the body. Therefore, for oral drugs one often needs a higher dose than when the drugs would be given via an injection.

In ruminants, oral medication is often ineffective because the absorption rate is slow due to their large intestinal tract (with some exceptions) and because the rumen microorganisms may destroy the drugs. The flip side of this coin in ruminants is that

especially antibiotics administered orally may harm the rumen flora which can lead to very serious complications. For wildlife, the oral route can be used with habituated or captive animals, which are usually predators (e.g. hiding a tablet in meat like with Fluffy). With wild predators, tranquilizer tablets can also be added to a bait to make them a bit drowsy, making it easier for us to dart the animal.

@ Orally = 'per os', which is Latin for 'through the mouth'.



Injections

This is the most common way in which we administer medication to wildlife, also known as the *'parenteral route*.' The medication does not go through the gastrointestinal system, eliminating the so-called 'first-pass metabolism'. Wild animals are usually 'injected' via a dart with immobilizing drugs, and once asleep, we can inject other medication. There are several ways to inject an animal, but we'll focus on the most common ones.

Subcutaneous injection

A subcutaneous (SC), or sub-cut injection, involves injecting a drug into the layer of fatty tissue just beneath the skin. 'Sub' means under, and 'cutaneous' comes from the word 'cutis', which means skin. Subcutaneous tissue does not have a rich blood supply, this means that the medication is not quickly absorbed.

This injection is typically given in an area with loose skin, such as the neck. A 'skin tent' is created by pinching and pulling the skin, and the needle is inserted into the base of the 'tent'. We usually give SC injections to animals when they are immobilized. Examples of SC injections we often give are vaccines and deworming.

A sable receives a deworming, the injection is subcutaneous, and you can see the 'tent' in where we inject. © U. Tubbesing





This lioness gets a multivitamin injection in the shoulder muscle. As a rule, we like to give immobilized animals at least a shot of vitamins to give the body a boost. © E. Tubbesing

Intramuscular injection

An intramuscular (IM) injection means injecting a drug into the muscle. Muscles have larger and more numerous blood vessels than subcutaneous tissue, leading to faster absorption.

When we dart an animal, we basically give an IM injection. Whether it is via a dart or injection with a syringe and needle, when we give an IM injection we aim for a big muscle - for example the shoulder, bum or neck (depending on the species). Examples of injections that we give are the immobilizing drugs, vitamins and certain antibiotics.

When we give medication IM, we must be always be careful that we do not inject it accidently into the blood stream. Before we inject, we always pull back the plunger of the syringe to ensure no blood appears (this is called aspiration), and only then do we proceed with the injection.

 $\@$ If the dart doesn't hit at a 90 o angle, the drugs go under the skin instead of into the muscle, causing a longer induction time – this is essentially a SC injection.





In elephants, we like to give intravenous injections in the ears. They are big and easily accessible. © Elephants without Borders

Intravenous injection

An intravenous (IV) injection means injecting a drug directly into a vein. The medication thus enters the blood stream immediately and gets distributed to the target organs very quickly. IV injections offer immediate effects and precise dosing, making them ideal for emergency situations and surgical procedures.

Common sites for IV injections in wild animals include the jugular vein (neck), cephalic vein (front leg), and saphenous vein (hind leg). The choice of vein depends on the species, size of the animal, and accessibility.

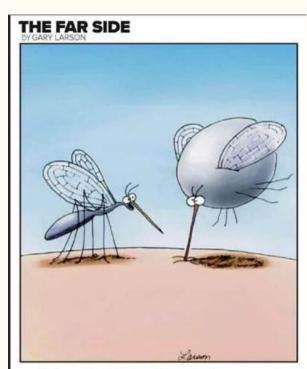
Examples of an IV injection we often use is the reversal. When we are done with the animal, the reversal drugs (to wake the animal up), are often injected directly into the vein. This means the animal wakes up pretty quickly. If an animal is not fully asleep and the situation is safe, we can also administer an additional dose of the immobilizing drugs IV. If an animal is sick/weak, we like to put up a drip, this also goes IV.

Along the elephant's ears run veins and arteries. We inject elephants in the ear vein. How to check whether we have a vein or artery...? Arteries carry blood from the heart to the body, and have a high blood pressure (we can feel a pulse). Veins carry blood back to the heart, and have a lower blood pressure (they are more 'floppy').

Dosages matter!

It is important that, when an animal is darted with medication, the dosage is correct. For example, some farmers will dart their sables with an Ivermectin dewormer. where an adult sable can easily weigh 250 kg. The recommended dosage is 1 ml per 50 kg. Thus, to be effective, an adult sable should get at least 4-5ml... That will be 3 x 2ml darts, which is obviously not practical!

By giving an adult sable only 2 ml, not enough medication is given to effectively eliminate the worms. This means that some worms will die, and others will survive. These surviving worms (or bacteria) usually already have a higher resistance against the deworming or antibiotic drugs used; they reproduce, and pass their 'resistant genes' to the next generation of worms. Over time, this leads to an increase of resistant worms inside the sable, making it more and more difficult to kill these worms with ordinary dewormers. We would have to immobilize the sable, and give a proper dose of a dewormer with a completely different active ingredient, that the worms don't know yet. A repeat might be necessary.



"Pull out, Betty! Pull out! ... You've hit an artery!"



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