



The Rule 10 DILEMMA



Whether it started with his love for Springbok rugby or with the trophies mounted on the wall in a farm homestead he can just vaguely remember, he is not sure. That these two factors are inseparable part of his quest to hunt the biggest springbok is indisputable.

With the development of the immobilising drug M99 in the 60s, conservationists could dart and translocate white rhino in the Hluhluwe and Umfolozi Game Reserves of the then Natal

Parks Board. Through this Operation Rhino, as it was called, the existence of the white rhino in other wildlife-protected areas and on game farms throughout the country could be ensured. But now, almost 50 years later, the same drug, ironically, is being used in poaching ac-

tivities by some unscrupulous elements within the game industry to exploit the illegal surge in demand for rhino horn. These actions called for stricter control of the drug and the amendment of Rule 10 of the Veterinary and Para-Veterinary Professions Act, Act 19 of 1982.

Outraged veterinarians have slammed their colleagues and sadly many game farmers, who used M99 on their game farms over the past years to immobilise animals that were injured or on the loose, are legally not allowed to administer M99 any longer.

Due to the limited number of veterinarians in rural areas, the change of legislation will result in catastrophe.

Etorphine (Immobilon)

More commonly referred to as M99, etorphine is a narcotic analgesic, with potency of about 1 000 times that of morphine. M99 is used in tranquiliser darts and was first prepared in 1960. The drug is available legally only for veterinary use and is strictly governed by law worldwide.

Locally, M99 is used as a strategic product in wildlife management. An antidote, M5050 (diprenorphine), which should be prepared prior to the etorphine, effectively reverses the immobilisation effect of M99.

Both products have an established track record amongst veterinarians in sub-Saharan Africa, and have a wide application for various species of wild animals, including rhino, elephant, buffalo and plains game.



Its use for immobilising wild animals results largely from its ability to cause catatonia at very low dose levels (for example, the total dose for a rhino may be as low as 5mg).

Novartis Animal Health is the manufacturer and sub-Saharan African distributor of M99 as well as the revival drug, M5050.

Important M99 facts:

- M99 is chemically related to morphine.
- M99 primarily impacts the neurological system.
- Depending on the species, M99 is 1 000 to 80 000 times more potent than morphine.
- M99 over-dosage may prove fatal.
- Under-dosing M99 may cause excitation.
- Veterinary-strength M99 is fatal to humans – even one drop can kill a person.



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Because of the great risk involved to man and animal in handling this substance, the possession and use of M99 is strictly controlled by law in almost all countries

Novartis says it enforces this and ensures that M99 and M5050 are only supplied to registered veterinarians.

M5050, the antidote, is an opioid receptor antagonist that can be administered in proportion to the amount of etorphine used (1,3 times) to reverse its effects. For this reason, the package as supplied to vets always includes the antidote.

It is critical to have M5050 available when administering M99:

- All supplies of M99 contain a vial of M5050 for the complete reversal of the immobilisation produced by M99.
- M5050's potency (Bentley et al, 1965) is 35 times greater than nalorphine, with its duration of action two to three times as long.
- Although it appears that there may be some degree of species variation, a dosage ratio M5050 to M99 of 1:1 is perfectly satisfactory.

The anaesthetic of choice

The choice of anaesthetics very much depends on the species being immo-

bilised, how it's being immobilised and where it's being immobilised. One must consider how long the drugs take to cause anaesthesia, how much trouble the animal could get into in the meantime (e.g. falling off of a cliff, drowning, being predated), how hot it is outside (some drugs increase body temperature more than others, some cause animals to have an "excitable" phase before they fall over, which could lead to running and kicking and increased heat generation, etc.), how fast you want to be able to reverse the anaesthesia (in the wild this is particularly important, especially for large animals).

One of M99's main advantages in general veterinary work is its speed of operation and, even more important, the speed with which M5050 reverses the effects. M99 can also be successfully administered in low doses.

Operations on valuable animals, using alternative anaesthetics, risks the animal injuring itself as the anaesthetic wears off. The rapid action of M5050 means the animal can be back on its feet within a relatively short time and aware of its surroundings more quickly, thus reducing any tendency to panic and move around rapidly while still partially under the influence of the an-



aesthetic. The use of alternative anaesthetics risks the animal injuring itself as the anaesthetic wears off.

M99 is usually injected by firing a dart from a dart-gun into the targeted muscle of the animal. The trajectory and velocity of a dart (upon being fired) is heavily impacted by the volume of fluid it contains.

As M99 can be successfully administered in low doses, the darts contain a lesser volume of liquid, which helps to maintain better accuracy when the darter takes aim.

As the welfare of animals involved is always of utmost importance, M99 is a preferred drug.

Khaki-collar crime

In an ironic twist, some of those drawn to work in wildlife conservation have now become destroyers, using scheduled immobilising drugs, sophisticated dart guns, night-vision equipment and helicopters to kill rhino.

A new expression has entered the South Africa lexicon: khaki-collar crime. The phrase has been coined to describe the involvement of game-park staff, game-capture experts and wildlife vets in the lucrative crime of rhino poaching.

The SA wildlife rancher dilemma

According to the amendment of Rule 10 of the Veterinary and Para-Veterinary Professions Act, Act 19 of 1982, which was announced in the Government Gazette on 8 June 2012, only veterinarians are allowed to administer anaesthetics.

Leon van der Watt, chairman of the Thabazimbi Game Study Group, who was continuously involved in conversations with the South African Veterinary Council (SAVC) on behalf of Wildlife Ranching South Africa (WRSA) to se-

cure the rights for game farmers to use M99 in a responsible and legal manner, says the amendment is aimed at the use of M99 specifically and has enormous cost implications for game farmers.

He says game capturers started experimenting with the use of M99 in the 1960s. "They fine-tuned the use of it over the years through the trial-and-error method, resulting in them knowing exactly which quantity to use on which species. Later they trained veterinarians in the use of the anaesthetic and it worked like that until around 2002."

The substance was never freely available in the sense that you could buy it at a supermarket, but it was accessible. After 2002 it wasn't that readily available any more, although certain veterinarians still supplied it to game farmers who they knew could use it responsibly.

According to Van der Watt, Wildlife Ranching South Africa engaged in discussions with the SAVC about the availability of the substance and requested that the Council should make provision for game farmers, considering the unique circumstances in which these farmers find themselves and their animals – taking into account the shortage of experienced veterinarians in rural areas. "We said we are even willing to do a short course about the safe use





of the anaesthetics. They accepted our request and even approved it in writing, after which they would compile a course that would be completed in 2010, but it never happened.

“We said we use any substances entrusted to us responsibly and that we would do everything according to the applicable regulations. We also said that we are willing to obtain substances through a veterinarian, as was always the case in the past. We had regular meetings with the Council and we were assured every time that they were paying attention to the issues that we raised – apparently nothing we said was taken into account. On 4 June, four days before the notice appeared in the Government Gazette, we were still in meetings about the issues – making representations on our rights and interests – and they still didn’t say anything about the fact that they had made up

their minds and that the interaction with us was just mere interaction, as nothing would ever come of it,” says Van der Watt.

On 8 June 2012 amendments to Rule 10 were announced in the Government Gazette, “suddenly and without any prior public participation”, according to Van der Watt.

There are serious concerns that the relationship between WRSA and the SAVC is being seriously damaged due to these surprise changes in legislation regarding the use of certain anaesthetics, including M99, despite the negotiations between the wildlife industry and veterinarians regarding the continued availability of these substances to game farmers.

He says the arguments that the SAVC used when it was confronted about the issue are not substantial,

“but they have created unfair competition that benefits themselves through the amendments because all game farmers and game capturers are now excluded from using the anaesthetics. Game capturers’ work is endangered, while many of the veterinarians were ‘trained’ by farmers. The irony is that farmers know in many cases more about the use of M99 than the veterinarians themselves, but now they have to rely on and pay for the veterinarians to drug animals.”

The fact is that veterinarians themselves are amongst the recently arrested and charged culprits.

Conclusion

According to the legislation, the amendment was added to benefit animals, the safety of the person who administer the drugs and the consumer who may use it, and to ensure that the SAVC has control over who uses the anaesthetics. But according to Van der Watt, these reasons are out of step with what goes on in the field.

WRSA is now investigating the possibility of taking legal steps to protect the rights of game farmers and to allow game farmers to continue to drug their animals themselves for the purposes of relocation or treatment.

In the final analysis, the legal restrictions against the use of M99 by non-veterinarians in a responsible manner and best interest of conservation might be a case of punishing the innocent majority for the sins of the minority.



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