1. Suzy

The car's engine is roaring as I am busy with some maps. I try to flatten them on my thighs to get a view of my location, but there is not much space between the steering wheel and my upper body. The only thing I see are the green patches on the map, showing me the French fields I am lost in. I ended up here because I am gaining practical experience on weekends at a West Flemish veterinarian who has been living and working in France for over twenty years, in Saint-Quentin, a city in northern Picardy, halfway between Paris, Lille and Brussels. If I'm not working in Bocholt at another veterinarian's office, I spend the weekend here and have a room above the practice. The work I can do here is a great addition to my specialization in anesthesia and allows me to earn some extra money, because that specialization doesn't pay that much.

At the moment, I am expected by Jacques, a French farmer who has requested help for a sick calf.

I angrily throw the maps on the passenger seat and continue driving blindly. After a while, I approach the farm where I need to be. Jacques is already waiting for me.

'You know what breed it is?' he asks.

'The Blonde d'Aquitaine?' I guess. Belgium is proud of the Belgian Blue, while in France it's the Blonde d'Aquitaine. They are beautiful, elegant cattle, with fine skin and horns.

'They are known for their excellent meat,' I add, trying to be jovial.

'And their aggressive nature,' the farmer winks.

He leads me to the stables and I notice that the farm doesn't look very modern, to say the very least. It all comes across as a bit dirty and grimy.

We come to a dark stable, the size of a kitchen, with straw and thick metal bars you have to work your way through to enter.

'There lies the calf.' Jacques nods towards a corner of the barn, while the mother cow is peacefully ruminating in the other corner.

The calf lies there, motionless. I enter the stable, kneel down next to the calf, and lift its head up. I think I can't possibly save this animal. But I have to and want to try.
I review the differential diagnosis: young calf, three days old, severe diarrhea: E. coli, rotavirus or coronavirus, cryptosporidium or coccidia. This differential diagnosis is drilled into you at university. Given the age, E. coli is the most likely, as the viruses occur around nine to ten days old, cryptosporidium around two weeks, and coccidia usually in calves of a few months. This is not conclusive, but I still decide to start a treatment for E. coli.
I pinch a fold of skin in the neck. It just stays upright instead of springing back flat. I open the calf's mouth and push my finger on the pink gums turning them white, then count: '1…2…3…4…5…6'. Normally, it should take no more than three seconds for the white gums to turn pink again, but here it takes twice as long. This calf is extremely dehydrated. The ears and mouth also feel cold, and the thermometer reads 92°F, so hypothermic, too. I need to administer a warm intravenous infusion of antibiotics and then subcutaneous fluid as well. I find the jugular vein with some effort, then insert a catheter. I connect the fluid and start the therapy.
All the while, the calf lies still without reacting.
I explain to the farmer, 'I'll come back tomorrow. Give me an update on how things are going. Especially if things don't go well, so I don't have to make the whole trip for nothing…'
I expect to quickly receive a phone call with bad news, but it doesn't come. I hear nothing from Jacques. The next day I drive back through the French fields, this time without getting lost, and look for the calf. Hopefully it's still alive.
'Fantastic!' Jacques calls out to me as I arrive. 'I don't know what you did, but that calf is back on its feet!'
Jacques's enthusiasm may be a bit exaggerated, but the calf has indeed made progress. It stands up straight again and reacts alertly to our presence. The mother also looks at us curiously.
'Wow,' I say immediately. I hadn't notice yesterday how impressive the mother is, even with her horns sawed off.

'That's Suzy,' Jacques nods. 'One of my best and most beautiful cows.' He leads me into the stable to do my work, but when I grab the calf, it gets scared. It starts mooing towards its mother, upon which the enormous cow turns towards me and charges without hesitation. Before I can respond, she headbutts me and pushes me over. I fall to the ground with a hard thud.
I hear the farmer curse while I see him fleeing from the corner of my eye through the thick bars.
'God damn it,' I think.

With my arms in front of my face and upper body, I quickly try to get back up.
But Suzy gives me another headbutt.
And another. She keeps pounding me, right on my chest, and I can't move.

I'm terrified and try to protect myself from this violence, but don't think I'll make it out alive. I get more and more scared with every blow, and the seconds feel like hours... Please let it be over soon.
'I'm coming!' I suddenly hear the farmer shout. He races back into the barn with a thick metal rod in his hand.
'Allez!' he bellows while hitting Suzy with the rod. It works. Suzy gets distracted and takes a few steps back, allowing me to finally escape. On hands and knees, I crawl through the bars. My whole body hurts. I drop myself on my back as soon as I'm safe and then lose consciousness.
'Tim? Tim, are you okay?'
I open my eyes and am somewhat reassured that it's Jacques hovering above me and no longer Suzy. I immediately feel the pain in my body again. My sternum and ribs are in bad shape.
'You've been lucky,' says Jacques. He can't hide his own relief. 'Suzy is my most aggressive cow. Those horns weren't sawn off for nothing...'
I shake my head and try to get up.

‘That calf still needs to be treated...’ I groan.
'Not until I move Suzy,' Jacques says dryly.
A little later, I lower myself gingerly onto the car seat. I want to sigh, but even that hurts. Everything hurts. Instead of driving straight to the vet, I stop by the hospital. I undergo the necessary examinations and receive the verdict: no broken ribs and no collapsed lung. Bruising and a lot of pain, though. But especially the idea that this job involves more risks than I previously thought. As a young, recently graduated veterinarian, you’re fearless and think you can take on the whole world, but an incident like this brings you back down to earth. Suddenly you’re mortal and realize that one wrong move can turn your whole life upside down.
When I return to the vet's office late that night, he looks at me in surprise.
‘Where have you been?’
'Underneath Suzy,' I groan, grimacing
‘Suzy!’ he laughs. ‘I know her. The most dangerous cow in the area!’

2. I am not a doctor

'He's having trouble breathing.' The elderly lady sounds concerned as she places her parrot's cage on the examination table in the practice in the Cornish town of Newquay. I can tell her husband shares her concern as he nods in agreement. The lady carefully takes the parrot out of the cage. The man gives him a little kiss on his beak. This animal is loved, that much is clear.

Jeff, the parrot, looks around curiously, but I indeed hear its labored breathing. Many people don't realize it, but the examination of the sick animal begins when the owner walks in with it. Every step and every bit of information is a piece of the puzzle that I, as a veterinarian, try to put together in search of what is wrong with the animal. And what the solution could be.

'Let's take a look,' I say reassuringly.

As always, I start with an anamnesis on which I then base my differential diagnosis. That's a kind of standard questioning of the owners I use to learn more about the animal, its housing, diet, and the problem. I already know the problem in this case, but how long has it been going on? Has the parrot been sick or treated before? How is its eating and drinking behavior? Does it eat a lot of sunflower seeds? The more precise the owners answer those questions, the better we can determine where the problem might lie.

I then look at things like the animal's posture, condition and behavior before moving on to a general examination. In this case, I focus on the breathing, paying attention to its frequency, type, and rhythm. I also check for the presence of white plaques in the parrot's nostrils. Such plaques occur in Hypovitaminosis A, a disease that occurs when birds are fed exclusively seed mixtures, especially sunflower seeds. I check for the presence of white spots in the mouth, something we often observe in cases of parasitic or fungal infection.

'The nose and mouth look good,' I say after that check. Meanwhile, I'm thinking of psittacosis, also known as parrot fever. The disease

is caused by the bacterium Chlamydophilla psittaci. After infection, there is often a reduced appetite, dehydration, diarrhea, and inflammation of the eye and nasal mucous membranes, which can lead to respiratory problems as in this parrot. If diagnosed early, the disease can be effectively treated with antibiotics.
'I'm going to take a quick swab of the mucous membranes,' I explain. The lady and gentleman nod in agreement. As long as it benefits their Jeff in the end.
'I think it could be chlamydia. It's very difficult for the little guy now, but with an antibiotic treatment we can make him better.'
I send the couple home with Jeff and a prescription for doxycycline, telling them to come back if there's no improvement. A few days later I receive confirmation from the lab that my suspicion was correct: the parrot tested strongly positive for chlamydia. I give the owners a call to assure them we started the correct treatment. The lady answers the phone. She sounds tired.
'Doctor...' she says, which usually makes me laugh because I am not a doctor, at least not a medical doctor. But I hear her voice break. 'Jeff is better, but my husband... He has been admitted to hospital with severe lung problems.' They think he has cancer, but for now they can't find anything...'
While the lady tells her story, my gears start turning. The man is having trouble breathing and they can't find anything. During their consultation, I saw him giving kisses to the parrot. The parrot has chlamydia, which is a zoonosis, an infectious disease that can be transmitted from animals to humans. People with a weaker immune system are more susceptible to infectious diseases in general, but this also applies to zoonoses. This risk group is summarized in literature as 'YOPI': Young, Old, Pregnant, Immunosuppressed which means young children, the elderly, pregnant women, and immunocompromised individuals.
'Ma'am...' I ask cautiously. 'May I call your husband's treating physician with your permission? I might be able to help...'
A little later I speak to the doctor on the phone.
'If I may...' I say cautiously. 'The man's parrot is undergoing treat-

ment for chlamydia, and it may be a possible avenue to also test the man for this zoonosis. The issues can then be resolved with antibiotic therapy.'

'You may...' I hear the doctor say. 'But if I may: you have no authority as a veterinarian. I examine and treat my patients, people, in the best possible way. So a veterinarian shouldn't be telling me how to do that. Thank you for your call, Dr. Bouts. Goodbye.'

Surprised and a little angry, I hang up the phone. Although the reaction of that doctor is over the top, it does illustrate the difference between a veterinarian and a human doctor. A veterinarian constantly thinks in terms of trans-species, as we are accustomed to looking at different animal species. We simply consider humans as a species of animal, albeit perhaps the most foolish of the primates. Humans and animals can never be considered completely separate from each other, as proven by transmissible diseases. When a disease passes from animal to human, we want to know how that happens. Does it transmit through breathing, excrement, objects, or are there other possibilities? In a zoonosis, we try to establish a first barrier to infection: disinfecting hands, wearing gloves and face masks, avoiding contact, and so on. In that sense, veterinarians are to some degree responsible for protecting society, hence the checks on the import of animals or at slaughterhouses. It would only take one mishap for the world to be turned upside down quickly.

I have no regrets about my phone call; I wouldn't be doing my job properly if I hadn't informed the doctor of the facts and my suspicions. It's just unfortunate that he didn't want to hear it and considers his own status more important than his patient.

I let it go, and a few weeks later I see that Jeff the parrot has a scheduled appointment.

The elderly couple enter the consultation room with a smile.

'And?' I ask curiously. I knew the parrot would be alright, but the husband...

'Jeff seems perfectly healthy again,' the lady says.

'And I feel the same way,' the man laughs.

His expression says it all.

'I really wasn't doing well, but at a some point the doctors switched to a different treatment and I fully recovered.'
'Thank you, doctor,' says the lady.
Then it's my turn to smile. 'I'm not a doctor, you know.'

3. DIY

'I have a little job for you,' says my boss. 'A wild sparrow hawk has just been brought in.'
He nods his head towards the examination room. I have only been working in this practice for four weeks, so I'm pleased my boss already has so much faith in me.
I nod confidently and enter the examination room.
They found him in Weybridge, in the open fields not far from the coast, says Sheila, the head nurse of the practice. She carefully opens the box on the examination table, which contains the sparrow hawk. 'He definitely flew into something. A power cable maybe, or a window. His right wing is drooping and he can no longer fly.'
'Hm,' I say. 'Hopefully no broken wing then. We'll take a look.'
It's a beautiful creature, its feathers shining in grayish hues. I presume it's a male, as they are often smaller than females. The bird is clearly flustered when we look at him. He looks up and has his talons ready to defend himself if necessary. I carefully reach into the box to grab the bird by its talons. In a bird of prey, those talons are actually the most dangerous, not the beak. He flaps around wildly with one wing, while the other hangs limp next to his body. I touch and look at the wing, and it's immediately clear that something is indeed wrong with it. There's an open wound and the humerus, the upper arm bone, is sticking out. An X-ray needs to be taken to confirm exactly what kind of fracture we're dealing with: is it simple or are there multiple fragments, and how far is the fracture from the joints?
'That'll be anesthesia then?' says Sheila, who immediately springs into action, preparing everything. Sheila has at least thirty years of experience as a nurse, which always puts me at ease, although she may not realize it.
I nod. We anesthetize the sparrow with a small gas mask and then insert a tube into its trachea. We position the wing of the bird on the radiography cassette to get a good view of the fracture.

On the X-ray, it's clear we are dealing with a simple fracture. The fracture is in a good location, not too close to the shoulder joint, but will need orthopedic treatment.

'Have you ever done something like this before?' Sheila asks.
I hope she isn't asking that question because I'm getting nervous. Because I have never done 'something like this' before.

'I've only had a class where we had to break a bone in a dead pigeon and put it back together.'
'It's almost the same thing,' Sheila laughs. The fact that she's on board should reassure me.
Because it won't be easy. Sheila needs some time to gather all the materials, as we will be using what looks like homemade crafting material.
'Here you go,' she says proudly, arriving with a tray containing all we need: pins, various sizes of injection needles, infusion tubing and a special two-component hoof glue called 'technovit'.
Now we can get started.
'Take your time,' Sheila says, before I can muster up the courage myself.
Because courage is what I need.
Birds have hollow bones, so they are light and can fly effortlessly. When one of those bones breaks, you can mend it by sliding a pin through the bone to reconnect the two parts of the fracture line. When you do this, the two fracture halves can still rotate relative to each other. So to fully stabilize the fracture, a kind of stabilizing bridge is made to hold the bottom and top of the bone in place.
I try to stay as calm and composed as possible while following the steps in my mind. My hands are not shaking, I notice. I control my

breathing and take my time.
I feel like a real handyman,' I remark halfway through the operation.
'A DIY enthusiast working on a PROJECT.' Sheila laughs, understanding what I mean.
The X-ray after the surgery shows that my handiwork is perfectly in place.
'Good?' Sheila confirms.
'Very good.' I feel proud.
To finish it off, I cross the two tips of the wings over each other on the back and stick them together with a piece of tape, so the bird can't spread them.
'Did it work?' Sheila asks as I drop my hands next to my body and tilt my head slightly toward the bird, as if admiring my handiwork.
'It worked,' I confirm.
It was my first surgery on a bird of prey, and a wild one at that, so I'm glad everything went well. Now I can only hope that he recovers well. The sparrow hawk stays with us in the practice for three weeks and kind of becomes my buddy. Every day I check on him and the wing, which seems to be healing well. Several weeks pass and the X-rays confirm that everything is fine. I can now remove the pins and needles. The bird moves its wing a little more every day, until it can fully open and flap with it again. Now it's time to move him to the Cornish Bird of Prey Centre for further rehabilitation. If all goes well, he will be released back into the wild.
A few weeks later, my boss calls me in again.
'The sparrow hawk,' he says. 'Do you still remember that bird?'
I nod and wait anxiously. Has something gone wrong?
'Congratulations,' he continues. 'You did a good job.'
I try to keep my *cool* while beaming with pride.
'The bird can be released back into the wild. The people from the rehabilitation center called asking if you want to be there. That might be fun?'
'For sure!' I reply enthusiastically.
The next day I'm standing on the plain where the sparrow hawk had been found injured, together with two colleagues. This place is so in-

credibly impressive. For me, it may well be one of the most beautiful places in the world. I see fields and rolling hills as far as my eyes can see. And way out in the distance I can see the coast. It's very windy and cold, but the sun warms me up. I have to squint my eyes to see into the distance.
'Are you ready?' I hear.
With a big smile, I nod.
'I'm ready.'
The door of the kennel is opened and then turned away from us. With my camera in my hand I am ready to capture this moment I never want to forget.
The sparrow hawk cautiously steps out of the kennel. He looks around curiously, spreads his wings, and then... flies away.
We silently watch the bird as it eventually disappears as a small dot on the horizon.
For the first time in my life, I was able to release a bird back into the wild. What an incredible, powerful and beautiful feeling.