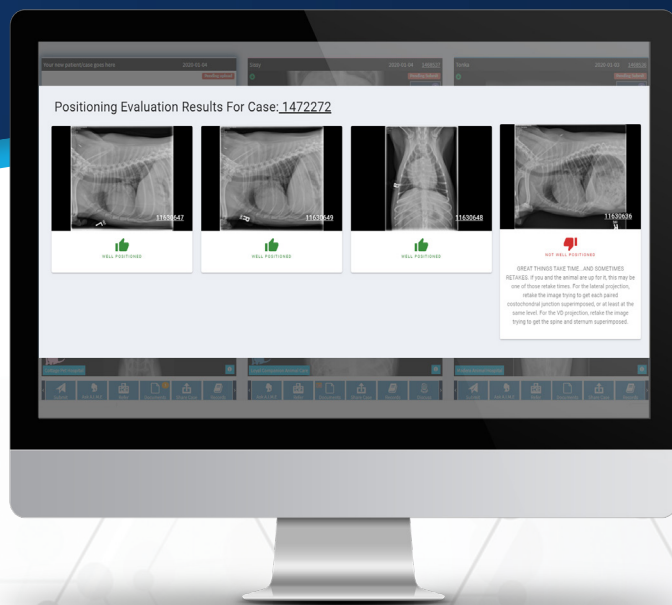


A SECOND SET OF EYES GAVE AN ELDERLY DOG A SECOND CHANCE.

With Patterson Teleradiology, you get quick artificial intelligence results in under five minutes. Veterinarians can use the AI to validate their initial findings, or test assumptions based on how their patient is presenting. Dr. Lauren Rockey did just that – and it saved a patient's life.

Case Study





CASE STUDY

During her four and a half years at St. Augustine Humane Society, Dr. Rockey has transitioned from practicing shelter medicine to a nonprofit clinic – a nonprofit dedicated to strengthening the lifelong bond between owner and pet. It meant changing from caring for animals in more of a herd health style to working with clients to help them keep their pets with them. She shares the job with another veterinarian: Dr. Rockey at three days a week and the other vet at two days a week.

More recently, the humane society has expanded as well. “Now we have an X-ray machine and dental X-ray, whereas before we had the bare minimum. I was having to use a local vet to get X-rays on patients.”

INTRO TO ARTIFICIAL INTELLIGENCE

Dr. Rockey’s local team includes Territory Manager Rachel Noell, who first told her about Patterson Teleradiology. Rockey was intrigued. “The artificial intelligence on chest rads was really interesting to me. They’re already doing it in human medicine. I thought it would be really great for us.”

“When we were at VMX, Rachel brought me around to the booth and introduced me. I thought it was great because at the time in January, I was the only vet. I don’t have a second set of eyes – you know, when you look at something and you’re like, ‘Oh gosh, I think it looks like this, but I’d really like a second opinion.’ I didn’t have that option.”

That second set of eyes that AI can provide was key.

Rockey continued, “Plus, an owner does not have the financing. You usually spend another \$80, \$90 on radiology review and the X-rays alone are \$75. So, am I going to charge them another \$80 or \$90 on top of that for an extra review? They’ll just decline it.”

MULTIPLE ISSUES FOR AN ELDERLY DOG NAMED DAISY

Daisy is an 11-year-old Chow-Labrador mix who presented with symptoms of heart failure. Dr. Rockey sent her initial digital image through Patterson Teleradiology for the artificial intelligence review, which was compared to thousands of similar thoracic images and returned in under five minutes.

The report came back quickly and said no evidence of heart failure.

How could this be?

“

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”

– Dr. Lauren Rockey



“I have this dog on triple therapy – Lasix, benazepril and pimobendan. I ran some blood work and she was azotemic as well. Now I’m in trouble because it’s not just clinically she is in heart failure and chuffing and exercise intolerant. But she’s azotemic and I need to really decrease these drugs,” Dr. Rockey told us.

“So when I did the X-rays and the AI came back with ‘No evidence of heart failure, but obvious cardiomegaly and vessel size is increased,’ I wanted to confirm right away, because if I had pulled this dog out of heart failure and I was still giving her Lasix, I wasn’t doing her any favors.”

Should you have further questions, it’s just two more clicks to submit it for a radiologist review. Dr. Rockey took advantage of that option in the case of Daisy.

“Daisy was presenting with labored breathing; the owner reported wheezing. I listened and obviously I have a huge murmur. So I sent that one back for radiologist review just to double-check. And he thought, because the dog was on Lasix, it was actually the reason why she had such a vascular pattern – she was dehydrated! – which wasn’t even something I was thinking about when I looked at the X-ray.”

“I was just thinking about the heart and its clinical signs and had I not even had my X-ray machine, I would have been really in trouble because I was definitely assuming things based off of clinical presentation,” Rockey explained.

“But I think the dog was spending a lot of time outside. It’s really, really hot in Florida. She also has a very large heart, so it doesn’t take a whole lot for her to probably become exercise intolerant. And she had shoulder arthritis, so he thought maybe she was panting because of pain and not necessarily because of her lungs. He caught that on the thoracic X-ray when he wrote me back. And so it flipped the script.”

THE TREATMENT PLAN WORKED

Working as the sole veterinarian three days a week for the society has its rewards. But also its challenges. There was nobody to bounce ideas around. Luckily, AI is a quick way to validate a diagnosis or test an assumption.

“I was able to stop the benazepril and Lasix but kept the pimobendan going and she’s doing well! The owner says that she chuffs, and she’s exercise intolerant, but we’re not getting coughing. But it is just such an awesome concept. I rechecked the kidney values and they had gotten a lot better just coming off the drugs. Daisy was so close to euthanasia without that.”



Daisy, the 11-year-old Chow-Labrador mix, presented with symptoms of heart failure. Yet, the AI said otherwise.

“
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CONTINUE TO USE AND GROW

Patterson Teleradiology's partner is Vetology, which is currently expanding the initial offer from canine thoracic to include canine abdomen. Future plans include artificial intelligence reads for feline radiographs as well. "I'm interested to see how the abdominal section works out. There are so many more differences inside the abdomen than in the chest – I'm interested to see how that pans out."

Within a span of less than half a year, Dr. Rockey went from hearing about Patterson Teleradiology, to meeting the people behind it, to using it – and it saved a life. Yet, artificial intelligence is a fairly new concept in the veterinary industry. Rockey's advice? "I would say keep an open mind. It was very comforting to me that they are already doing it in human medicine. And then the thought that there aren't enough radiologists for as many reads as we need. Keep an open mind, question them if you want to in the beginning trying to get comfortable with it."

She added, "I also really enjoy the cloud-based feature – it includes the cloud, so you don't have to pay another service to store images. That's awesome because I was able to store my dental images, too. They helped me through how to send my dental X-rays; obviously I'm not getting anybody to read them, but I wanted a place to store them safely. That's a money-saving feature for sure."

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Dr. Lauren Rockey also does volunteer work with a grant from the Street Dog Coalition.

ABOUT PATTERSON TELERADIOLOGY



Patterson Teleradiology's AI reports are returned to you quickly! Submit your digital images for canine artificial intelligence results in under five minutes. The artificial intelligence is powered by Vetology and is built on thousands of cases.

The service includes a positioning validator to ensure the images can get their best read; a feature called Image Match, which lets you compare your image against thousands of similar images; and unlimited DICOM cloud storage.