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Sarah Gough, Assistant Manager, Registered Veterinary Nurse,  
Dubai Falcon Hospital, United Arab Emirates

## It's all in the details, with falcon care

Dubai Falcon Hospital keeps bird athletes in flying form,  
with DR Retrofit and Enterprise Imaging for Radiology

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Interview with SARAH GOUGH, Assistant Manager, Registered Veterinary Nurse, Dubai Falcon Hospital, United Arab Emirates

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The art of falconry has been practiced for thousands of years, and has been recognized by UNESCO for its cultural importance and value. The birds used in falconry are not seen as only hunting companions: they are athletes, and like all athletes, it is important to ensure that they are in optimal physical condition. The Dubai Falcon Hospital was the first hospital facility specialized in falcons in the Middle East, and over time it has become a model for other falcon hospitals in the region. The recent opening of a new radiology suite provided an opportunity for the hospital to further enhance the care and service it offers, by upgrading its Agfa HealthCare computed radiography (CR) imaging solutions to direct radiography (DR), with the DR Retrofit. At the same time, the hospital implemented Enterprise Imaging for Radiology.

In 1983, H.H. Sheikh Hamdan bin Rashid al Maktoum set up the Dubai Falcon Hospital in the United Arab Emirates (UAE) to provide veterinary services for the hunting and breeding falcons of the royal families in the region. At the time, there were no similar facilities for falcons in the Middle East, so the hospital also provided emergency services and free assistance for all falcons. The hospital now includes an international team of veterinarians, qualified veterinary nurses and several experienced falcon technicians. This team represents different countries and backgrounds, and is directed by Mr. Humaid Al Muhairi, general manager of the Falcon Hospital.

### Fit and trim, and ready to fly

Sarah Gough, the hospital's veterinary nurse and also assistant manager under medical director Dr. Antonio Di Somma, joined the team in 2009. “After working for about nine years with small animals in the UK, I relocated to Dubai, to work at the Falcon Hospital,” she recalls. “The differences in dealing with the raptors compared to small animals like cats and dogs are quite striking. Small animal veterinary practices usually deal with a limited number of birds, whereas here that's what we do every day. From a practical point of view, it's quite a change: for example, giving a falcon oral medicine requires two people, to prevent harm to both the humans and the birds! All diagnostic exams are performed under general anesthesia to reduce the stress to the falcons.”

Sarah Gough highlights that these birds are not pets: they are athletes, like hunting dogs or race horses, and it is the responsibility of the hospital to ensure that they are always in top condition. Each falcon normally undergoes two complete check-ups per year, at the start and end of the falcon season, which generally

runs October to February in Dubai. “We perform a complete workup for each falcon, comprising a physical examination, blood tests, parasitology, endoscopy of the thoracic air sacs, and two X-rays (lateral and ventrodorsal views).”

In between these check-ups, the birds may come in for routine health checks, with the occasional muscular injuries or fractures caused by trauma, for example. The birds can also suffer from spinal abnormalities. And as athletes, the condition of the birds' feathers is of key importance: the hospital has an ‘imping’ room where broken or damaged primary and tail feathers are repaired.

### Mobile care, on the spot

As part of the ‘natural evolution’ of the hospital, says Sarah, it recently renovated and expanded its radiology department, and also started up a mobile care service. At the same time, the hospital decided to upgrade its existing Agfa HealthCare CR systems to DR, with two Retrofit solutions: a mobile, portable Retrofit that can be used on hunting trips, and another Retrofit in the radiology suite.

“For the mobile hospital, we needed the portability of DR. Our mobile Retrofit is comprised of a laptop and the DR, so it is very practical. For our radiology suite, upgrading to DR was also a natural progression, and the Retrofit made it very easy,” explains Sarah Gough.

The DR Retrofit required little change in the workflow of Sarah Gough and dedicated falcon technician Ahmed Kutty, who take the images. “Switching was easy, although it took a while to adjust to the cassette-less workflow and to remember to click directly on the screen to take the images.”





## Enterprise Imaging for Radiology

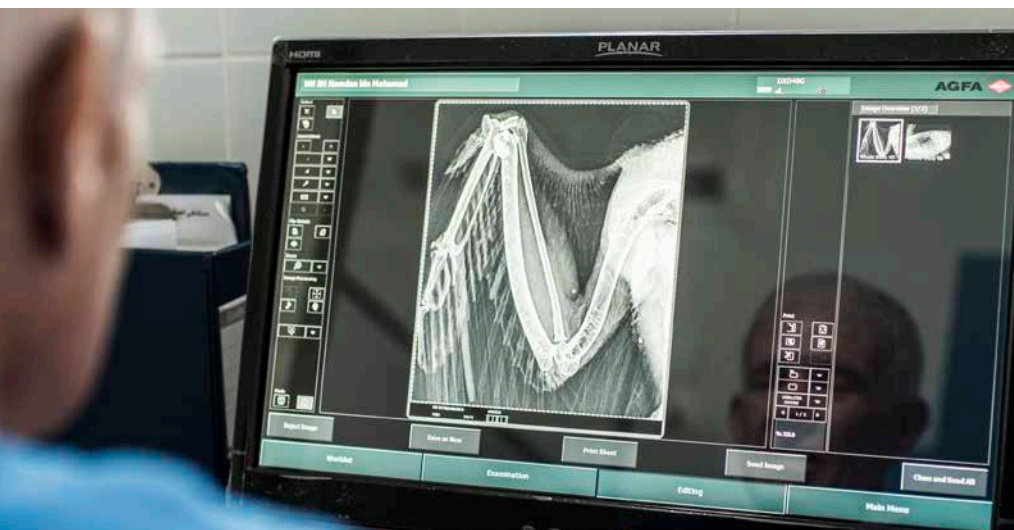
- Can store all images – X-ray, endoscopy, ultrasound, ... – in a single repository
- Delivers workflow efficiencies via a highly intuitive user interface
- Reduces complexity through use of a single platform
- Scalable to meet your changing imaging needs

## DR Retrofit

- All the workflow and image quality benefits of direct radiography
- Maximizes existing imaging investment
- Easy installation, quickly up and running
- Very fast images, with very high quality
- MUSICA image processing, offering very clear, highly detailed images

“The image quality is much better, there is more clarity. We were already used to the MUSICA image processing, which is incredible: you don't have to do anything, it does everything for you.”

SARAH GOUGH



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## Agfa HealthCare's Contribution

Building on a long customer relationship with the Dubai Falcon Hospital, Agfa HealthCare and its regional partner STAR-Trivitron implemented the two DR Retrofit solutions and the Enterprise Imaging for Radiology, migrated 5000+ studies from the old PACS, and carry out preventative maintenance for the hospital.

### Imaging speed counts in animal safety

On the other hand, the advantages were immediately clear: "We can take pictures faster; if necessary, we can reposition the animal and 'fire off' another image right away. While this accelerates our tasks, what is most important is that the faster speed means less time under anesthesia for the falcons, which is safer for them. To give an example, for a full check-up (which involves more than X-rays) including CR images, a falcon would be anesthetized for 30 minutes, and if retakes were needed it would be even longer. However, when using the DR, the birds are anesthetized for only about 15 minutes, and the occasional retakes are immediate."

The veterinarians are equally happy with the quality of the images. "The image quality is really amazing, there is more clarity. We were already used to the MUSICA image processing, which is incredible: you don't have to do anything, it does everything for you. You get such clear images: it brings out the detail in every image, even in the feather."

### Integrated images follow a bird's entire history

When upgrading to DR, the hospital also implemented the Enterprise Imaging for Radiology solution to replace its old picture archiving and communication system (PACS). "The solution does a lot for us now, but also offers us many possibilities for the future," comments

Sarah Gough. "Firstly, we need it for storing our images: when we switched over, we migrated over 5000 studies, without any problems. We keep all images of our falcons for their entire lifetime; our oldest falcon is 24 years old and we have its entire history. We often compare X-rays if any changes are apparent."

But the platform also offers new viewing possibilities for the veterinarians. "Before, they always viewed and diagnosed on the workstation, but now they can use the larger diagnostic screen. We can share images easily, putting multiple images on a USB stick for the falcons' owners, or send them by email, for example."

The hospital also has plans to extend its use of the solution: "One project is to include our other DICOM modalities (the endoscopy images, and future ultrasound images) on the Agfa HealthCare system. This will allow us to integrate all of the images, so they can all be stored in a single accessible place."

In her years at the Dubai Falcon Hospital, Sarah Gough has seen a lot of changes, including more and more falcon hospitals opening their doors in neighboring countries. "But we remain the gold-standard; Dubai Falcon Hospital is the original blueprint which other hospitals follow. We are committed to continuing to fulfill the vision of H.H. Sheikh Hamdan bin Rashid al Maktoum to offer the highest level of falcon care."

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