

#### **CASE STUDY**

General Referral Hospital of Drodro (HGR Drodro), Democratic Republic of the Congo



# Case Study

INTERVIEW WITH

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Dr. Benjamin Djoza

General Referral Hospital of Drodro (HGR Drodro) is a true lifeline for the inhabitants of the territory, helping ensure their health and well-being. In this challenging and war-torn region, in the Democratic Republic of the Congo, medical imaging provides critical insight for both diagnosis and treatment of a broad range of health issues. So when the hospital's DR Retrofit™ unexpectedly went down, doctors and patients alike were concerned: sending the unit to distant Kinshasa for repair would leave them with no X-ray capabilities for a long time. But Agfa's technical team in Belgium rose to the challenge, with a remote fix that had the DR Retrofit working quickly. This was the result of a real team effort, that has made all the difference for several patients.

# Direct radiography: an ideal solution for remote hospitals

The General Referral Hospital of Drodro (HGR Drodro) is a small hospital in a rather remote area of the Ituri province in the north-eastern corner of the Democratic Republic of Congo (DRC). The 100-bed facility offers internal medicine, surgery, pediatrics and gynecology-obstetrics services.

In 2015, the hospital set up a radiology service with the support of Belgian NGO Memisa and the University of Leuven (LUMOS). The program aimed to deliver direct radiography (DR) systems to several somewhat isolated hospitals in the DRC. DR technology is ideal for these facilities because it requires few consumables (which may be difficult or expensive for the hospitals to purchase), while delivering excellent

image quality. In a competitive tender, Memisa chose Agfa's DR Retrofit with the DX-D 40 digital detector, which combines a high level of technology and maximum convenience.

Since then, the radiology service at HGR Drodro has offered critical healthcare support to a broad range of patients, both pediatric and adult. The X-ray images help diagnose everything from broken or dislocated bones, to lung or heart pathologies, to foreign objects in the body. "Furthermore, our X-ray system doesn't just serve the people in the Drodro health zone, but also in the surrounding health zones of Fataki, Lita and Jiba," comments Dr. Anicet Mugisa, Medical Chief of Staff for HGR Drodro.





### Agfa's solution

The DR Retrofit™ delivers an affordable way to get the benefits of DR, including:



Immediate, high-quality images



Faster exams, with images available within seconds



Consistent image quality at lower dose



Fewer rejects and repeat examinations



Cassette-less DR workflow



Easy to install and service



Requires no consumables at all



### Finding a remote fix minimizes downtime

In May 2022, the DR Retrofit system experienced a breakdown. "The server and the computer turned on as normal, but there was no connection to the internet. This meant that the Viewer application on the MUSICA® Workstation could not open, and we could not use the DR Retrofit," explains Dr. Jean-Paul Nube, Hospital Medical Director of HGR Drodro.

Under normal circumstances, the DR Retrofit would need to be sent to Kinshasa for repair — which is some 3,000 km/1,800 miles from the hospital. This would mean that the radiography services would be unavailable for three months or more.

The Agfa technical support team and the doctors at HGR Drodro wanted to find a solution to avoid this long downtime. As the staff at HGR Drodro described the problem, it became clear to the Agfa team that the issue was probably a configuration problem. They decided to try to diagnose and solve the problem remotely — despite the 'patchy' internet available at Drodro and the lack of technical experts on-site.



"The Agfa experts were able to determine that a virus had damaged the Microsoft Windows system," explains Dr. Anicet Mugisa.

While identifying the problem was simple, fixing it was not. "There were a number of tasks that had to be carried out remotely by the Agfa team, working on-line with the hospital staff. This included a full installation of the software on the MUSICA workstation, as well as reestablishing and reconfiguring the connections between all of the system components, calibrating the DX-D 40, and then carrying out quality tests to be sure everything was working satisfactorily."

Now that the radiography department is back in service, we can serve our patients without difficulty. We have significantly benefitted from the collaboration with Agfa, and are confident that, when we need their assistance again, we will receive the same warm welcome."

Dr. Jean-Paul Nube,

Hospital Medical Director



Few hospitals around Drodro have an X-ray, so when our radiography service is down, we have no choice but to send patients to Bunia, the capital of the Ituri province, for imaging — despite the travel risks."

**Dr. Anicet Mugisa,**Medical Chief of Staff



### Faster repair makes all the difference to patients

Thanks to the teamwork between HGR Drodro and Agfa, the DR Retrofit was back in service quickly — which was a great relief to some patients waiting for imaging. One patient, for example, was believed to have a femoral neck fracture, but had to wait for confirmation from X-rays to begin treatment. With the DR Retrofit back in service, the images revealed she actually had a dislocated hip.

Another impacted patient was a 24-month-old child with a suspected pneumopathy and associated heart problem. Medical images were vital to confirm the diagnosis. "Few hospitals around Drodro have an X-ray, so when our radiography service is down, we have no choice but to send patients to Bunia, the capital of the Ituri province, for imaging – despite the travel risks," comments Dr. Mugisa. The repair of the DR Retrofit made the dangerous and expensive trip unnecessary. The DR images verified a heart condition, and an NGO working in the region arranged to have the child transferred to a facility that could provide the needed treatment.

One man's experiences clearly show the difficulties doctors and patients can run in to in this unstable region. "He was brought urgently to the hospital after being shot in an ambush. He received three bullets in the thigh, one of which remained lodged there. The hospital staff had difficulty removing it, because they could not determine its exact position," says Dr. Benjamin Djoza. The patient had to wait for the DR Retrofit to be repaired to get his X-rays; with those in hand, the care staff could immediately act to remove the bullet, to his great and obvious relief.

Both staff and patients were very appreciative of the efforts of Agfa's technical team to get the DR Retrofit back in service quickly. "They were very accessible, and very patient, despite the unreliability of the connection. Now that the radiography department is back in service, we can serve our patients without difficulty. We have significantly benefitted from the collaboration with Agfa, and are confident that, when we need their assistance again, we will receive the same warm welcome," says Dr. Nube.

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Dr. Benjamin Djoza,

Physician



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