



# A dose of 'good cents'

Fast-growing Kettering Health Network balances growth, imaging demands, low dose and cost control with its ever-expanding fleet of Agfa DR

**Case study:** Kettering Medical Center  
Kettering Health Network, Ohio, USA



# Case Study

## INTERVIEW WITH:

### MAX GRADY,

ADMINISTRATIVE DIRECTOR OF RADIOLOGY,  
KETTERING HEALTH NETWORK

### ANNETTE LONG,

MANAGER OF RADIOLOGY, KETTERING MEDICAL CENTER

For fast-growing Kettering Health Network, transitioning to direct radiography (DR) was both a solution and a challenge. On the one hand, the benefits of DR support the network's care quality, patient care and productivity goals. On the other hand, the radiology department needed to find a way to cost-effectively upgrade existing computed radiography (CR) systems in current sites and to install brand-new DR in its new sites.

But what might have seemed an impossible challenge instead became an advantage, thanks to Kettering's strong relationship with Agfa. Kettering has made full use of the vendor's comprehensive portfolio of DR solutions – and Agfa's unique, flexible financing. "Working with Agfa has allowed us to accomplish our goals at a fraction of the cost," explains Max Grady, Administrative Director of Radiology for Kettering Health Network. "With Agfa DR, we can carry out high quality imaging exams, with the lowest patient radiation dose reasonably achievable, while benefitting from an exceptional economic value."

## AN INSTANT UPGRADE: DR RETROFIT

Kettering's journey to DR began in 2016, when the network contracted with Agfa to upgrade nine CR rooms in three hospitals, with DR Retrofits. By the end of 2018, over 20 X-Ray rooms had been converted with the DR Retrofit, and more were scheduled.

"With the DR Retrofits, we could continue using our existing X-Ray equipment and make the switch to DR very quickly," comments Max. "In particular, this has supported us to meet our regulatory requirements and ensure we get the maximum reimbursements for X-Rays." As specified by the Consolidated Appropriations Act, reimbursements for exams made with CR are already reduced by 7%; starting in 2023, the penalty will be 10%.

At the same time, Kettering's DR Retrofits, soon joined by Agfa's mobile DX-D 100, floor-mounted DR 400, ceiling-mounted DR 600 and multi-purpose DR 800, have provided the health network and its patients with all the benefits of DR: including instant availability of images for review, workflow efficiency for the radiography department, time savings, high image quality and a wider dynamic range than provided by CR.





“With Agfa DR, we can carry out high quality imaging exams, with the lowest patient radiation dose reasonably achievable, while benefitting from an exceptional economic value.”

**Max Grady,**  
Administrative Director of Radiology, Kettering Health Network







“Agfa’s flexible financing includes unique coverage for equipment that is out of warranty. Unlike other vendors, with Agfa there is no ‘use it or lose it’ side... This means that our entire investment goes to enhancing our imaging environment and the service we offer our patients.”

**Annette Long,**  
Manager of Radiology, Kettering Medical Center

## AGFA’S CONTRIBUTION:

Agfa worked closely with Kettering Health Network to create a Managed Services Agreement and flexible financing that has supported the health network’s growth, cost and patient care objectives.





## MANAGED SERVICES AGREEMENT AND FLEXIBLE FINANCING

A multi-year, multi-site Managed Services Agreement (MSA), with flexible financing, made it possible for Kettering to achieve its goals to transition to DR, at a fraction of the cost. Annette Long, Manager of Radiology, explains: “One key aspect of Agfa’s flexible financing is the unique coverage for equipment that is out of warranty. Unlike other vendors, with Agfa there is no ‘use it or lose it’ side, where the money can only be used for replacing detectors. Instead we pay a certain amount each year per detector for the drop insurance. This money goes into a ‘pool of funds’ that we can flexibly spend. So, if we don’t need to replace any detectors, we can choose to use the money to purchase new equipment instead. This means that our entire investment goes to enhancing our imaging environment and the service we offer our patients.”

“Equipment investment costs can be a drag on our potential growth; the MSA with Agfa removes an impediment for our expansion,” Max highlights. “We have a responsibility to be good stewards of the financial resources of our network, to do the most possible with what we have, and Agfa helps us achieve that.”

## A COMPREHENSIVE PORTFOLIO MEETING EACH SITE’S NEEDS

“Agfa’s extensive range of DR solutions allows us to match the best solution to the individual site’s situation, in order to create a complete DR environment,” Max continues. Each solution provides key benefits and meets specific needs, he explains:

- **DX-D 100:** “It’s a complete X-Ray room on wheels. It’s quiet, productive, easy to navigate, and has a large screen. The FreeView telescopic arm is very convenient. Our technologists love it.”
- **DR 400:** “Since it’s floor-mounted, the construction costs for the room are lower. And it is a very convenient solution.”
- **DR 600:** “This is a total, versatile room with an efficient automated workflow. We can do full leg/full spine imaging for scoliosis, etc. The technologist can stay at the patient’s side the whole time. It’s easy to operate, and the ZeroForce functionality reduces physical stress on our staff.”
- **DR 800:** “This is our most recent acquisition, which we have installed in a new, mid-sized facility. It will be the only X-Ray room there, for the entire radiography department, which is possible because it is multi-purpose and very productive. We are already getting positive feedback on it.”





“We have a responsibility to be good stewards of the financial resources of our network... Agfa helps us achieve that.”

Max Grady, Administrative Director of Radiology, Kettering Health Network



## 75% REDUCTION IN DOSE, 25% INCREASE IN PRODUCTIVITY

At the heart of Agfa's DR is the intelligent MUSICA image processing, which delivers exquisite details and allows lower patient dose. "I've been working with MUSICA since the original software came out, and from the beginning it has been a game-changer," recalls Max. "MUSICA lets us see all of the anatomical structures at the same time: soft tissue and bone. There's no window leveling, which speeds up imaging considerably and enables us to do more cases in the same period of time. With very little effort, you get a lot of information, which is critical for quality of care."

Improving patient safety by reducing patient radiation dose is a continuing goal for health providers, including Kettering Health Network. MUSICA Chest+ has enabled Kettering to reduce dose by up to 75%\* for mobile, non-grid chest X-Rays, and the network is seeing similar results with the dedicated MUSICA abdominal imaging software.

Productivity has also increased, on multiple fronts. "Turnaround time for imaging in our ER rooms has improved, and overall staff productivity has been boosted, so we can meet the growing needs of our communities with the same staff."

Patients feel the difference, as well, Annette describes: "First of all, with DR we can immediately see if an image is acceptable, so the imaging process is faster for the patient. Then, the technologist can stay with the patient during the entire imaging process, instead of going in and out of the X-Ray room to check the image, so they feel more supported and accompanied. And we can show patients their images right away."

The increased efficiency has enabled Kettering to change imaging from an appointment-based organization to walk-ins, which eliminates the cost and time impact of 'no-shows'.

"For us, working with Agfa is an obvious choice. As a company, Agfa listens to its customers, and then comes up with solutions to our problems – like the flexible financing. In terms of its solutions, there is no comparison: Agfa offers us the best quality, at the best price, at the best dose," Max concludes.

\* Testing with board-certified radiologists has determined that Cesium Bromide (CR) and Cesium Iodide (DR) Detectors, when used with MUSICA image processing, can provide dose reductions between 50 to 60%, compared to traditional Barium Fluoro Bromide CR systems. Contact Agfa for more details.



Kettering Health Network has **48 Agfa DR systems** installed in **23 locations** throughout the health system over the past 3 years.

48



23



75%



reduction in  
dose

25%



increase in  
productivity

With an MSA/Managed Service Agreement and establishing a DR detector pool for replacing damaged detectors (versus paying for "Detector Insurance"), Agfa has saved Kettering over **\$1.5M** in a **5-year period**. These savings can be applied to the detector pool and for purchasing additional DR equipment.

\$1.5M



5  
years



## AGFA SOLUTIONS

- **DR Retrofit**

By upgrading CR or analog modalities to DR, imaging environments can affordably leverage their existing investments, and very quickly achieve the benefits of DR.

- **DX-D 100**

Powerful mobile imaging with instant high-quality image capture and immediate image validation, transfer and access.

- **DR 400**

A cost-effective and scalable hospital-grade, floor-mounted DR solution that can grow and develop with the care facility.

- **DR 600**

A fully automated DR solution providing ultimate speed, precision and comfort in imaging.

- **DR 800**

Highly versatile, fully integrated, multi-purpose solution suitable for both radiography and fluoroscopy.

- **MUSICA workstation with image processing:**

The most recent MUSICA version provides improved performance for difficult imaging areas, and optimally renders all relevant data in the image. MUSICA has dedicated software for a number of subspecialties, including thoracic imaging, abdominal imaging, pediatric imaging, etc. MUSICA Chest+ includes an additional parameter set for optimal bedside chest image quality, even without grids.

For more information on Agfa, please visit our website on [www.agfa.com](http://www.agfa.com) ■

Agfa, the Agfa rhombus, DX-D and MUSICA are trademarks of Agfa-Gevaert NV, Belgium or its affiliates. All rights reserved. All information contained herein is intended for guidance purposes only, and characteristics of the products and services described in this publication can be changed at any time without notice. Products and services may not be available for your local area. Please contact your local sales representative for availability information. Agfa-Gevaert NV diligently strives to provide as accurate information as possible, but shall not be responsible for any typographical error.

© 2019 Agfa NV  
All rights reserved  
Published by Agfa NV  
Septestraat 27 - 2640 Mortsel  
Belgium

201911

**AGFA** 