

Healthcare transformation, we'll take you...

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THERE

Edition 6, 2010

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- » **Christian Reinaudo**, President of Agfa HealthCare
- » **Dirk Debusscher**, Vice President Imaging Agfa HealthCare

When exceptional image quality meets high DR productivity

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Meet the DX-D family from Agfa HealthCare

It is not often you meet your perfect partner. But, when it comes to delivering superior image quality with maximum productivity, Agfa HealthCare's integrated digital rooms are your perfect match. Building upon a history of imaging excellence, they use MUSICA² image processing for DR.

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Since you deserve exceptional image quality and high efficiency, you should plan to meet Agfa HealthCare's DX-D soon.

Healthcare Transformation. We'll take you there.



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Dear reader,

Much attention has recently been given to healthcare reform in the United States. The importance of this initiative cannot be underestimated. However, as a global company, Agfa HealthCare is also well aware that evolutions in care provision are a worldwide phenomenon.

China, for example, has recently pledged over US\$120 billion to upgrade and expand its healthcare system, and countries as varied as the Kingdom of Saudi Arabia, Thailand and Brazil have made significant efforts to bring their healthcare system up to speed. These are projects which we, at Agfa HealthCare, have been keen to support and even be a part of. As a global player, we not only offer a wide range of solutions, from diagnostic imaging systems, advanced healthcare IT solutions and, most recently two new lines of consumables, but also pride ourselves on being able to offer extensive insights into, and understanding of, the healthcare market. Leading hospitals, care facilities and governmental bodies have found this attribute to be a key benefit in supporting their healthcare related decision making.

The stories in this edition of THERE magazine are a partial reflection of our successes in the many different markets, healthcare systems and geographic regions around the world, from Europe to Africa and Middle East, and from America to Asia Pacific.



Curious for more?
Then I invite you to subscribe to the magazine via **HYPERLINK** "<http://www.agfa.com/there>".

HAPPY READING

ERIC MAURINCOMME
Chief Strategy and Marketing Officer
Editor-in-Chief THERE, Agfa HealthCare

We'll take you there...

A good guide always leaves a trail, so that the next time, the right path to follow is easily recognized. Across the world, guides have left trails to help the next generations overcome natural obstacles more efficiently. Many of these trails have, over time, become one with nature, almost as if they have always been there.

As you manage your transition to digital and IT, Agfa HealthCare understands the

challenges you face, because, with over a century of experience, we have forged many of these new paths in healthcare, often in changing times. Agfa HealthCare provides a means to effectively improve and transform your healthcare delivery. It will take you along the path of greater financial and operational efficiency and ultimately higher quality of patient care.

Agfa HealthCare will guide you on your journey. We'll take you there.



Healthcare transformation in growth markets: challenges and opportunities

Interview with Luc Thijs, Vice President Growth Markets at Agfa HealthCare

As countries around the world invest in streamlining, modernizing and developing cost effective healthcare systems, the Asian, Latin American, African and Russian healthcare markets are witnessing some of the biggest transformations seen to date. Each individual region and the countries that lie within have, over the past ten years, invested massively in their healthcare provision. Their investments are designed to improve overall health levels, longevity and, through improved efficiencies, cost effective care. Throughout this process of transformation, Agfa HealthCare has played an integral role in supporting these healthcare systems in their move to the next level of care, and has (and continues) to guide its global customer base through each level of transition. To look at how this is achieved and better understand the challenges and opportunities of this transformation in more detail, **THERE** magazine caught up with Luc Thijs, Vice President Growth Markets at Agfa HealthCare.

Despite the vast geographic and cultural differences in the markets you manage, do you see any similar challenges and opportunities?

There are, in fact, quite a number of similarities, especially in developing regions and countries. We are seeing that, as economies grow, and the population becomes more affluent, people also become much more demanding about the access to, and quality of, care they receive.

Access to care (and subsequently the quality that is provided) is not necessarily evident in many growth markets. Existing healthcare infrastructure does not always adequately cover the entire territory, physicians are unequally spread between cities and rural areas, and shortages of trained staff and specialists are a concern. You have to remember that many of these countries have vast rural regions they need to provide care to, not always evident in terms of logistics.



On the other hand, we are seeing that many governments are making significant efforts to improve their healthcare system. Most talked about these days is China's US\$124 billion investment in healthcare, driving better central and rural care for its massive population. But China is not alone. Large investments have been made by countries as varied as Russia, Malaysia, Thailand, the Kingdom of Saudi Arabia, and Brazil. They all have a universal goal: to provide common access to quality care, delivered in a cost effective manner. A fantastic challenge, but also a great opportunity!

How does Agfa HealthCare address these challenges and opportunities?

We address these in two ways; firstly, by sharing our extensive knowledge of

the healthcare market and its challenges with our customers, and secondly, by providing the right solutions for those markets to enable them to meet those challenges.

Our digital X-ray technologies and teleradiology solutions bring better healthcare to more remote areas of a country. A first tangible advantage of our Computed Radiography (CR) technology, for example, is that it brings consistent image quality to the X-ray department. Chemistry is no longer part of the equation, and thanks to our latest MUSICA image enhancement technologies, it is increasingly unnecessary to repeat an exposure. CR, moreover, offers the advantage of being affordable as it can be retrofitted into existing X-ray rooms. By means

of our teleradiology solutions, we can bring remotely acquired X-ray studies to the eyes of city-based radiologists, making expert diagnosis accessible to all patients, whether they live in the city or a distant rural community.

Within the walls of centralized, city-based hospitals, our Direct Radiography (DR) and RIS/PACS help facilities cope with the increasing patient inflow for the radiology department. With the same number of staff, it is not unusual that radiology departments manage up to a 30% higher patient load after optimization of their workflow. Study turnaround time improves from several days to a few hours, or less. Last but not least, little to no studies are lost and many unnecessary repeat exams are prevented, while at the same time, the availability of a more complete patient file allows for a better quality diagnosis.

Also, through our Datacenter technologies, we help hospital groups and even regions build and operate their own healthcare IT infrastructure. One consolidated record per patient, accessible to all authorized care providers across a geography, safely and efficiently archived and managed, impervious to where, when or on what system the relevant patient studies were originally acquired. This is 21st century healthcare technology at its best!

How important is innovation for customers in the growth markets ?

Innovation is critical to our success and that of our customers. It is part of our mission to make the best possible use of new technologies to help our customers be more efficient or faster in their work. There is little difference between emerging and more established healthcare markets in terms of technology adoption. On the contrary, new economies often leap-frog over, or skip certain technologies entirely. A good example is the fast market penetration of DR in China, just to be able to cope with patient load.

“We share our extensive knowledge of healthcare challenges with our customers and provide the right solutions to meet those challenges.”

LUC THIJS, Vice President Growth Markets
Agfa HealthCare

What new products does Agfa HealthCare bring this year?

We will be introducing a significant amount of new solutions to the market. Two brand new introductions will be added to our consumables portfolio, namely contrast media, and disposable drapes and gowns. New introductions in digital imaging this year will include the DX-D 300, a U-arm DR solution which complements our DX-D 500 ceiling and wall solution, and the DX-G, a next generation CR system with extraordinary flexibility for general radiography using both needle-based detector and powder phosphor plates.

We have also expanded our PACS offering with the introduction of the latest IMPAX, version 6.5. It offers improvements that will further increase a radiologist's ability to read more exams, with fewer mouse clicks. Enhancements include new tools supporting multi-planar labeling for volumetric spine studies, new communications tools, enhanced task management and optimized algorithms that speed image delivery. IMPAX 6.5 continues to offer the productivity features of embedded IMPAX reporting and image processing, and introduces a breast imaging workflow that's fully compliant with the "Integrating The Healthcare Enterprise" (IHE) initiative, as well as improved integration to IMPAX Cardiovascular.

Last, but not least, there is Agfa HealthCare's IMPAX Data Center, which provides large-scale multimedia storage for all types of standards-based DICOM 3.0 medical images and diagnostic results for hospital groups, regional healthcare organizations and national medical archives. The solution consolidates imaging data from disparate systems into a single point of storage and distribution via the electronic health record (EHR), to help improve and speed decision-making.

You talked about the introduction of new consumables. Can you provide us with more details?

Agfa HealthCare has, outside its IT solutions, always had a significant consumables business. It is in fact our origin – our DNA – as we like to say. Today, outside the provision of medical film and associated products, we have decided to expand into two distinct areas – contrast media and disposable drapes and gowns.

With contrast media, it was an obvious step for us to take. Our strong

“It is not unusual for radiology departments to manage up to 30% higher patient loads after workflow optimization.”

LUC THIJS, Vice President Growth Markets
Agfa HealthCare

reputation in radiology, our years of service to diagnostic imaging specialists and our know-how of the sector meant that expanding into contrast media was a next logical step. For our customers, this only brings additional benefits, enabling them to order solutions from a vendor they know and trust, and through a single point of contact. Agfa HealthCare has always been a leader with its film and print solutions. The decision to purchase a new line of business was made to ensure that we continue to offer a broad range of diagnostic imaging products, enabling us to deliver the highest quality radiology solutions, on time, all of the time.

The introduction of a new line of disposable drapes and gowns is, in part, a reaction to the fact that the healthcare sector has to deal with an increasing number of transmittable diseases and, as a result, the need for better infection control has become a major priority. It is a subject that we are constantly confronted with when talking to our customers. With new standards and regulations being enforced, especially when it comes to creating improved bacterial barriers during surgery, we believe that the way forward is with single-use gowns and drapes made from laminates and non-woven materials. Our combined know-how of the needs of the healthcare sector at large and our over 100-year history in chemistry convinced us that we could help our customers meet part of their infection control needs. As a result Agfa HealthCare has launched a new line of consumables: disposable drapes and gowns under the brand name SEPARIO. With a comprehensive range of drapes and gowns, specifically designed to provide practical protection for a hospital's patients and personnel, healthcare facilities can be confident of fulfilling the strict hygiene requirements where infection control is at its most critical point.

So in short, it promises to be an exciting 2010 for us, and we look forward to strengthening our existing solutions and introducing new ones during this year. •

Medical university and teaching hospital **relies on PACS** to expedite care

Linking over a dozen on- and off-campus sites, a single PACS supports prompt patient care, permitting most radiologist reports to be completed within 24 hours

INTERVIEWEES Jon Hanada, PACS Administrator • Erwin Schwarz, Director, Diagnostic Imaging Services



As the state's only health and research facility, Oregon Health & Science University (OHSU) brings together education, research, patient care and community service to improve the well being of Oregonians. Performing approximately 250,000 radiology procedures annually using 12 terabytes of data, OHSU radiology is spread across 15 locations and eight separate buildings, with reading rooms in nine different areas.

"SHRINKING" THE OHSU CAMPUS

With locations in and around downtown Portland, OHSU is a huge enterprise that requires the most advanced technologies to keep pace with its many activities in patient care, medical research and education. The university recently installed Agfa HealthCare's IMPAX 6 PACS to better accommodate increased demand for its services.

Says Jon Hanada, PACS Administrator at OHSU: "With this upgrade, we're able to distribute PACS applications throughout the hospital and beyond, allowing clinicians and radiologists to work from one database. Before IMPAX 6, we had

Agfa HealthCare's Web 1000 and two separate databases, but keeping them in sync was a challenge. Now everyone is on the same page with identical information from a single source. With radiology performed all over campus as well as off-site, IMPAX 6 essentially shrinks OHSU, letting users be productive from anywhere."

According to Erwin Schwarz, OHSU's Director of Diagnostic Imaging Services, that means more efficient workflow for everyone: "Not only does this help our radiologists, it has a huge impact on referring physicians' workflow. With IMPAX 6, they have access to patient images on campus, off-site or even at home. For trauma cases, it enables them to review the images and plan treatment before they even get to the hospital."

"We also have five facilities that are connected to IMPAX via a virtual private network, so we can import images from institutions around the state to our physicians. It greatly enhances communication and the delivery of patient care," he continued.

DID YOU KNOW...

- » OHSU operates an aerial tram linking its Marquam Hill campus with Portland's South Waterfront, home to future campus expansion. It's the only public transport of its kind in the world and Portland's most visible link.
- » With roots back to 1887, OHSU today has Schools of Medicine, Nursing, Dentistry, Science and Pharmacy.
- » In 2007, OHSU earned \$307 million (USD) in research funding and serves as a catalyst for the region's bioscience industry.

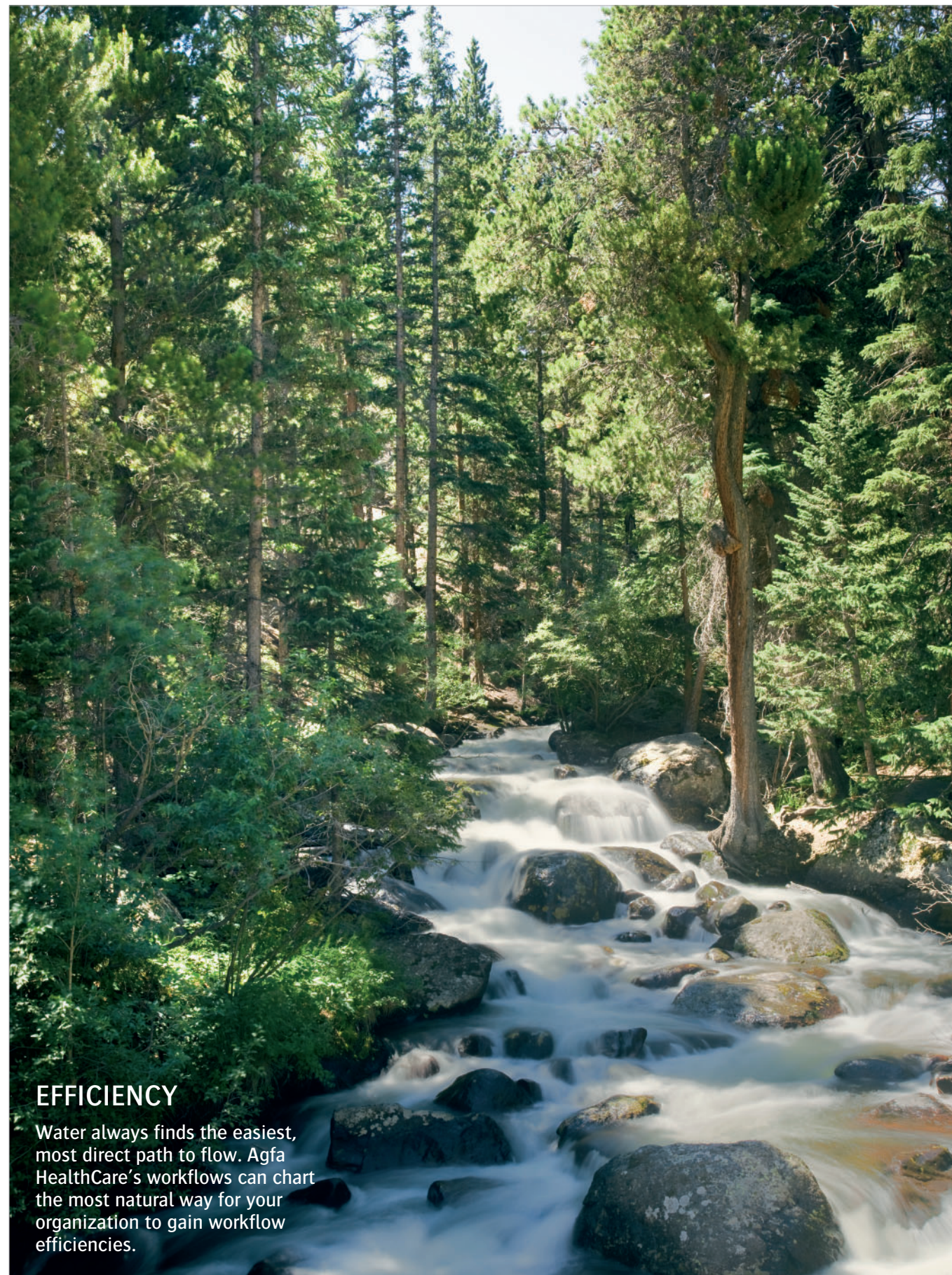
INTEGRATE VS. INTERFACE

Part of Agfa HealthCare's success in PACS comes from its long-time focus on integration through vendor-neutral architecture. The company's solutions can receive image data from a wide range of modalities and sources. Specially engineered connections and interoperability between components eliminate compatibility issues and extensive integration chores typical of multi-vendor solutions.

"Most vendors can interface patient name, medical record number, study, etc., but with IMPAX integrated RIS/PACS, we can pull information such as image availability across to the RIS side, which has been updated from the PACS side," said Jon Hanada. "We chose IMPAX because of the tight integration between the RIS and PACS, and have seen significant workflow efficiencies as a result." → Cont. on page 9

"With IMPAX 6, radiologists have access to patient images on campus, off-site or even at home."

ERWIN SCHWARZ,
Director, Diagnostic Imaging Services



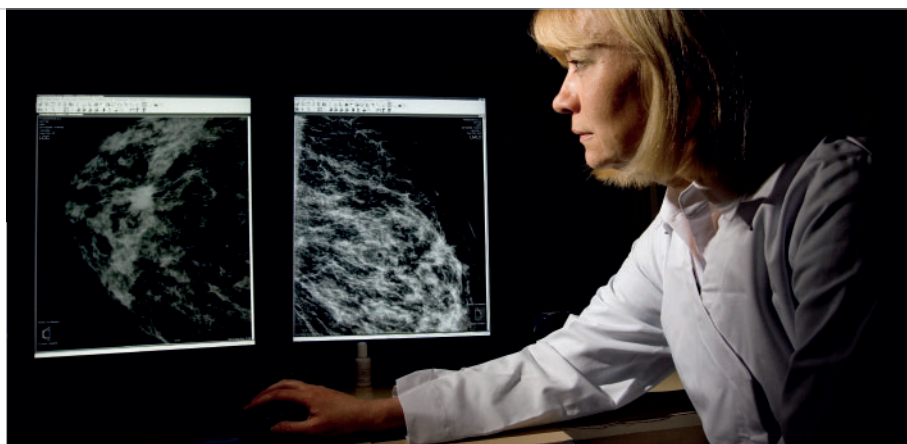
EFFICIENCY

Water always finds the easiest, most direct path to flow. Agfa HealthCare's workflows can chart the most natural way for your organization to gain workflow efficiencies.

Russia strives to improve early breast cancer detection thanks to CR-based imaging technology

Highly versatile CR 85-X Mammography solution* with supporting NX workstation, imagers and PACS to help leading Moscow oncology center perform prompt disease identification, diagnosis and treatment

Russia currently has one of the highest mortality rates in Europe. More than a million people die of cardio-vascular diseases annually, with hundreds of thousands more succumbing to a wide range of trauma. In third place is cancer, with breast cancer in particular noted as a leading cause of death. The newly acquired, highly versatile digitizer with dedicated mammo workstation and imager from Agfa HealthCare specially configured for high quality breast imaging have the potential to help reverse this situation.



CRITICAL NEED FOR EARLY DIAGNOSIS/TREATMENT

Moscow's N.N. Blokhin Oncology Scientific Center was founded more than 60 years ago and is today one of Russia's leading oncology institutions. It is supervised by the Russian Academy of Sciences directed by Mikhail Davydov, M.D., who is among the nation's most prominent oncology surgeons. The Center consists of four separate medical research facilities.

"Each year we provide breast cancer consultation services to more than 12,000 women," says Galina Korzhenkova, M.D., Head of the Scientific Group of Mammography Diagnosis at the center. "Yet 42% of women who come to the oncologist are at the third or fourth stage of the disease."

"We have actively collaborated with Agfa HealthCare in establishing joint programs of scientific cooperation."

GALINA KORZHENKOVA, M.D.
Head – Scientific Group of Mammography Diagnosis
N.N. Blokhin Oncology Scientific Center

Dr. Korzhenkova notes that while many modern nations have seen decreases in breast cancer mortality thanks to early disease detection, it is increasing in Russia. Having worked as a radiotherapist at the center since 1983, she believes this situation is mainly due to inadequate screening programs.

"Women are ready to have breast examinations or screening mammography", says the doctor, "and I am convinced that by providing early detection programs to women, we protect the nation's health."

COLLABORATION WITH EXPERTS/SUPPLIERS HELPS ACHIEVE SUCCESS

Fortunately, new sophisticated imaging and screening technologies are heralding a major change in Russia's fight against breast cancer. Several regions including Yaroslavl, Veliki Novgorod, and Kazan have started early screening programs, thanks to the regional government's purchase of modern mammography equipment.

Dr. Korzhenkova firmly believes in working in close cooperation with companies supplying diagnostic imaging

solutions to learn as much as possible in order to maximize the life-saving potential. She currently consults colleagues from the European Center for Quality of Mammography Diagnostic Tests, located in Belgium. She also helps to organize special courses for Russian doctors within the Russian Medical Academy of post-graduate studies, and is extremely knowledgeable about all existing digital mammography testing systems.

"Lately, we have actively collaborated with Agfa HealthCare, not just in purchasing a full, CR-based mammography solution, but in establishing joint programs of scientific cooperation as well," she says. "Together, we study and evaluate different breast

CR 85-X

- » An ideal solution for decentralized CR environments.
- » Ergonomic architecture facilitates placement in confined procedure rooms.
- » 20 pixels/mm resolution available for mammography imaging.
- » 18 x 24 cm and 24 x 30 cm cassette and plate sizes specifically for mammography.

OHSU also relies on Agfa HealthCare's TalkStation for reporting, which is integrated with IMPAX to enable radiologists to directly control the entire reporting process. TalkStation provides a complete interpretation and reporting solution, with speech recognition, macro templates, and context sharing. These and other features decrease report turnaround time, eliminate transcription costs, and enhance the delivery of patient care.

The software's continuous speech recognition allows a radiologist to dictate, edit and sign a report at the same workstation where images are reviewed. Reports can be created faster, at the desktop workstation of choice, and duplicate efforts on multiple applications are a thing of the past.

"Users love it – the recognition is excellent and the workflow very good. We have over 90% of reports going through speech recognition, which has reduced turnaround times for preliminary to final reports. Before IMPAX, our average turnaround was over 100 hours. Today, total turnaround

AGFA HEALTHCARE'S CONTRIBUTION

- » IMPAX 6 PACS with integrated RIS.
- » IMPAX TalkStation, a PACS/RIS integrated reporting solution.

is less than 24 hours, with some available within minutes of completion," says Jon Hanada.

GOOD VISION MEANS GOOD PARTNERSHIP

According to OHSU, Agfa HealthCare is committed to being a good business partner. "The people we work with have OHSU interests at heart, collaborating on the right vision for our technology roadmap and steering us in the right direction," says Jon Hanada.

Erwin Schwarz agrees: "It's a huge advantage to have a single strategic IT partner. It provides consistency, eliminates variability and avoids any finger pointing if there are issues. Whether it makes our back- or front-end workflow better, Agfa HealthCare continues to reassure us that we're with a technology expert that will evolve its product in the years to come." •

IMPAX 6

- » IMPAX 6 is a web-deployed image and information management solution, which helps streamline enterprise workflow and deliver increased efficiency and productivity.
- » When integrated with IMPAX RIS and Reporting Solutions, IMPAX 6 provides a consolidated view and centralized management of patient images and information.
- » IMPAX 6 scales from a single box solution to a multi-facility environment meeting the needs of any enterprise, radiology department or imaging center.
- » By enabling easy workflow digitization, streamlining study review, and improved reporting and results distribution, IMPAX 6 adapts by working the way you want to work.

"We chose IMPAX because of the tight integration between the RIS and PACS, and have seen significant workflow efficiencies as a result."

JON HANADA, PACS Administrator

"The whole process must be efficiently organized so that every woman who needs screening will receive it, according to the highest medical standards."

GALINA KORZHENKOVA, M.D.
Head – Scientific Group of Mammography Diagnosis
N.N. Blokhin Oncology Scientific Center

imaging techniques to get the best possible image quality from the CR solution. In this way, we get the most benefit from the company's well-known reputation in healthcare imaging."

The oncology center is currently being outfitted with Agfa HealthCare's dedicated CR 85-X mammography solution*. Additionally, two mammography Agfa DRYSTAR AXYS imagers will be installed to provide consistently high quality images for diagnosis. Finally, an IMPAX PACS client server with workstation is included to archive all digital study data, facilitating

the easy comparison of original images with future ones obtained during a patient's subsequent consultation.

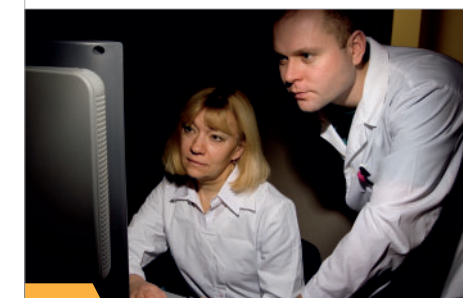
DIGITAL FROM THE START A 'FAST TRACK' TO LEADERSHIP

Dr. Korzhenkova believes that simply purchasing imaging equipment is not enough. "The whole screening and diagnostic process must be efficiently organized so that every woman who needs screening will receive it, according to the highest medical standards."

"In one respect, years of not having adequate mammography equipment and programs will eventually allow us to be ahead of others in breast cancer screening," she says. "In many other nations, older systems are gradually being replaced with new digital solutions, resulting in a sometimes inefficient mix of technologies and processes. Here, we've had minimal use of breast imaging technologies, so we are making a decisive step forward by deploying digital solutions from the start. In this way, we will have a unified display protocol that helps reduce errors." •

AGFA HEALTHCARE'S CONTRIBUTION

- » CR 85-X multi-application digitizer MUSICA for Mammography image enhancement software
- » DRYSTAR AXYS Imager for Mammography
- » NX Enterprise Mammography Workstation
- » IMPAX PACS Client Server.



DI YOU KNOW...

- » Healthcare is one of Russia's four declared national projects, along with education, housing and agriculture.
- » About 2.5 million Russians suffer from cancer, and more than 450,000 new cases are registered annually.
- » Trends suggest that death rates from female breast cancer in Russia are likely to stabilize or even decline in the future.

First RIS in Algeria helps prominent teaching hospital transform to more efficient, digital workflow

Bab El Oued University Hospital installs new IMPAX RIS



Bab El Oued University Hospital, a leading academic institution in Algeria, houses the National Medical Imaging Center (NMIC), a referral site for the Algerian Department of Health. Approximately forty radiologists work at the NMIC across the various radiology disciplines (interventional, vascular, standard, Doppler ultrasound, MRI, and mammography). About 600 patients are seen every day. The imaging center's mission is to provide expertise, training and research, and as a result, it was the first Algerian care center to digitize its imaging equipment by installing decentralized CR solutions with thermal imagers. For the past two months, the center has been integrating patient and clinical data on a new Radiology Information System (RIS).

CUSTOMIZED TO ALGERIAN PRACTICES, RIS EXPANDS DAILY PATIENT WORKLOAD

The NMIC at Bab El Oued University Hospital has to meet national standards. "This center does not claim to take care of the entire Algerian population, but

it does provide expertise in developing medical imaging techniques and making them accessible nationwide," explains Prof. Boudjema Mansouri, Head of the Center. To enable it to meet its needs, Bab El Oued University Hospital acquired its first DRYSTAR 3000 imager from Agfa HealthCare in 2002. Then, in 2005, it installed additional CR digitizers and imagers from the company. From there, transition to a fully integrated IT solution was a logical development.

"The rapid increase in imaging activity steered us towards an IT solution to help manage a growing number of records," Prof. Mansouri continues. "That is why it was important to set up a RIS. We have been working, with support from Agfa HealthCare, to build a RIS adapted to the reality of our country. Some of our work habits are not quite the same as European standards and, as a result, we had to introduce a certain number of parameters that met our approach, including the habits of the staff and patients."

The IMPAX 5.6 RIS has been up and running for two months now and radiologists and their teams are very happy with it. Professor Mansouri adds, "With the new equipment and RIS, we will be able to handle about 600 patient records a day, which is a huge number. The RIS solution will allow us to better manage and control our growing workload."

"We chose Agfa HealthCare primarily because of its consistent, responsive on-site support. We would not work with

SOLUTION BOX

- » RIS/DRYSTAR/CR systems provide flexibility for a more fluid method of working.
- » Excellent image quality improves diagnostic reliability.
- » Combining the RIS with a PACS will certainly make it possible to move on to the next steps assigned to the centre, such as telemedicine or teleradiology within Bab El Oued University Hospital.



AGFA HEALTHCARE'S CONTRIBUTION

- » Continuous support throughout the RIS implementation process with an engineer on site every day to answer questions and teach staff to use the new digital equipment.
- » The IMPAX RIS will enable staff to treat approximately 600 patients a day. This solution is more than capable of meeting today's challenges.

a company that could not be a reliable partner", he concludes.

DIGITAL SOLUTIONS FACILITATE SERVICE OUTSIDE NMIC

With an IMPAX RIS, 10 DRYSTAR imagers and three CR solutions, the radiology environment at the Algerian center is now almost entirely supported by Agfa HealthCare. Now that the RIS is installed, hospital managers hope to continue this collaboration and move towards the installation of a Picture Archiving and Communications System (PACS). "One of the NMIC's missions is to develop teleradiology and telemedicine, and a PACS falls into this framework," adds Prof. Mansouri. "We

"Agfa HealthCare competently met our needs in terms of training, maintenance, progression and upgradeability."

Prof. BOUDJEMA MANSOURI, head of the National Medical Imaging Center, Bab El Oued University Hospital.

are giving ourselves two years from full implementation of the RIS to develop this PACS."

The RIS/CR solutions offer a new vision of medical imaging. Now, through decentralized CR solutions, we can perform studies reliably and consistently in multiple procedure rooms. It is extraordinary. We aim to further develop this fluidity with the PACS, which will enable us to perform studies outside the medical imaging center, such as in clinics."

The combined RIS/DRYSTAR/CR solution is also a model for the many medical students who train at the university, as well as for radiologists from other institutions who can see for themselves the technical reality of the installation and the benefits of this technology.

CONTINUOUS, ONSITE TRAINING BENEFITS BOTH STAFF AND STUDENTS

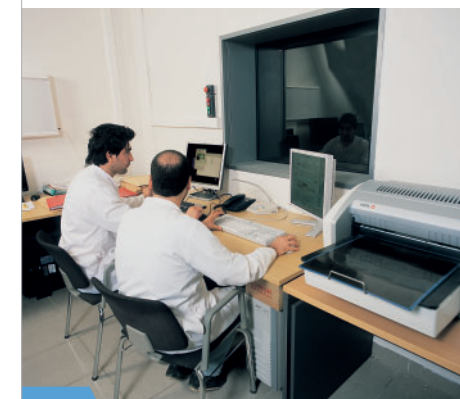
"Going digital brings improved image quality and therefore diagnostic certainty and reliability", says the professor. "With this kind of technology, staff training is essential, and Agfa HealthCare met all expectations in this respect".

"Training is provided on a regular basis with constant accompaniment, especially when new methods are implemented. Familiarisation with this equipment and staff induction has been achieved quickly thanks to easy access to the training and

"The RIS/CR equipment offers a new vision of medical imaging, which motivates the staff."

Prof. BOUDJEMA MANSOURI, head of the National Medical Imaging Center, Bab El Oued University Hospital.

support by Agfa HealthCare. Our staff is now under less pressure because they no longer rely on verbal communications in their work. Everything is fully traceable." •



DID YOU KNOW...

- » With 870 beds, Bab El Oued University Hospital is Algeria's second largest medical facility.
- » In addition to Bab El Oued University Hospital, the NMIC performs most of the country's interventional radiology, which is not heavily practiced in Algeria.

Private hospital turns to CR solutions to expedite care; enhance prestige

Multiple CR digitizers, workstations and hardcopy imagers help integrate general radiology with other electronic modalities for enterprise-wide digital imaging

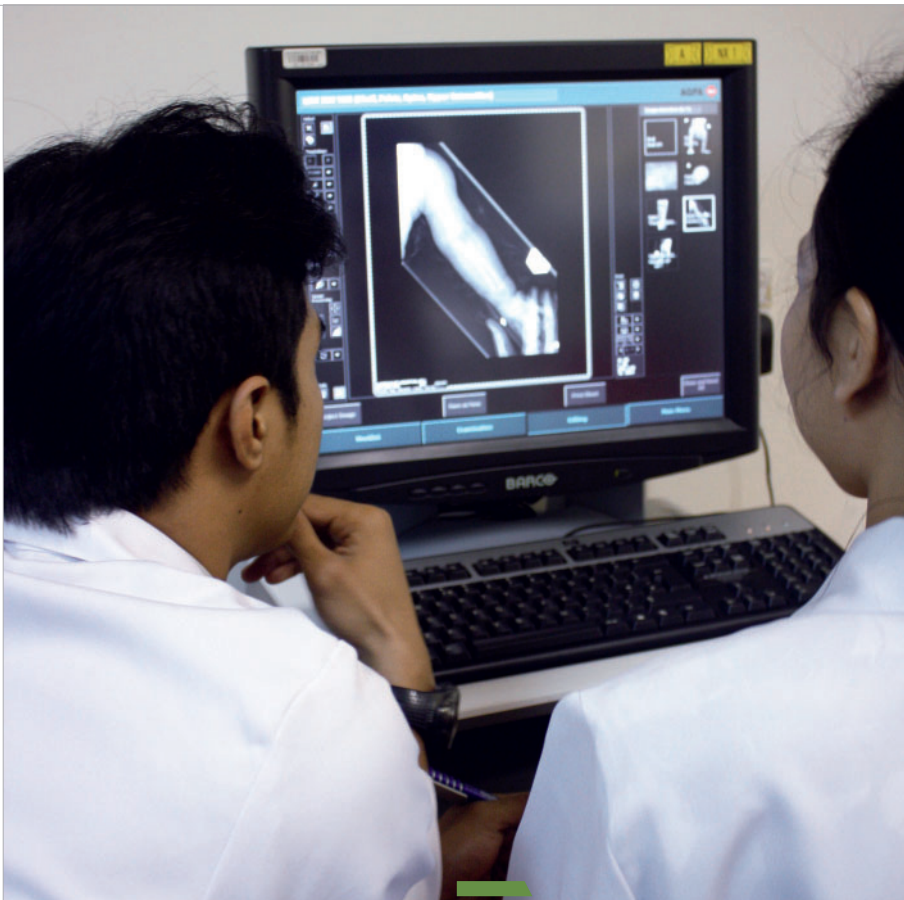
Gleneagles Hospital Kuala Lumpur has installed three CR solutions from Agfa HealthCare to serve its general Imaging Department and nearby Health Screening Center. One of the CR systems also serves accident and emergency (A&E) adjacent to imaging. This installation achieves multiple goals, including high physician satisfaction in having access to the latest digital technology.

A FINE BALANCE BETWEEN HOSPITALITY AND MEDICINE

With 280 beds, this tertiary care hospital in Kuala Lumpur has built an excellent reputation by combining 5-star hotel service with state-of-the-art medical care. Its rooms include suites. Lobbies and public areas evoke an upscale resort. Fine dining, a retail pharmacy, financial and full Wi-Fi web services are available, among other executive-style offerings. It's part of a larger group of 11 hospitals that include facilities in Shanghai, Singapore, and Dubai.

Considered among the top five private hospitals in Malaysia, Gleneagles often runs at high occupancy levels, with many patients coming from Kuala Lumpur's expatriate community including nearby embassy staff and their families. The hospital has clinical and management professionals conversant in Korean, Japanese, English and French. A separate Medical Office Building accommodates consultants of various specialties. All this presents some unique challenges according to its CEO, Amir Firdaus bin Abdullah.

"As a premium hospital with a regional service, we constantly have to keep up to that level of play," he says. "Our competition is not just other Malaysian hospitals, but newer facilities in Shanghai and Singapore. And it's not just about attracting patients with exceptional service and care, but also hiring and retaining top medical and



clinical staff who are constantly lured by other technologically advanced facilities in the region."

Amir Firdaus adds balancing the highest quality of medical technology with a hospitality-approach for the optimal patient experience is the hospital's primary mission. To help achieve this, a new multi-story addition will begin construction later this year to complement the original 14-year old main building. This will house patient suites and clinical departments, giving the hospital's 150 staff physicians and consultants an even more modern environment to practice, thereby helping increase patient comfort.

AGFA HEALTHCARE'S CONTRIBUTION

» CR 35-X and CR 85-X digitizers, NX Workstation, and DRYSTAR 5502 and 5502 multi-modality, high resolution imagers.

"I was impressed with Agfa HealthCare's professionalism. They were expert on every contact, continually making timely and practical recommendations."

AMIR FIRDAUS BIN ABDULLAH
Chief Executive Officer
Gleneagles Hospital Kuala Lumpur

CR 35-X; CR 85-X; DRYSTAR

- » CR 85-X, a multi-application solution with a fast drop-and-go buffer that reduces waiting times for improved productivity.
- » CR 35-X, a small footprint solution for decentralized CR environments.
- » Both offer three resolution modes that maximize use in a wide range of applications – general, extremities, orthopedics, pediatrics.
- » DRYSTAR 5502 and 5503 high throughput, high-resolution direct digital imagers that accept three media sizes. Ideal for CR, CT, MRI, DSA and digital R&F.
- » MUSICA² process enhancement software providing optimal, consistent image quality that's exam independent.

PROFESSIONALISM, EXPERIENCE FACTORS IN CHOOSING CR SUPPLIER

With six full-time radiologists, the ground floor Imaging Department has the latest digital modalities including 3-D CT scanning, a 1.5 Tesla MRI, digital angiography, non-vascular interventional radiography, ultrasound and mammography along with fluoroscopy and general radiology. It was in general imaging that the hospital wanted to grow from conventional to digital solutions to more efficiently combine a huge volume of studies with its current electronic modalities, linked via a pre-existing PACS and HIS.

"We felt a CR platform was ideally suited to our goal of integrating general radiology, including A&E imaging, with other digital modalities through our PACS/HIS," Amir Firdaus said. "We also carefully considered the end-result image quality." A review of five suppliers' CR systems was narrowed to three, with one solution finally chosen – a combination of Agfa HealthCare's CR 85-X and CR



35-X digitizers, accompanying NX workstations and two DRYSTAR 5502 and 5503 dry media imagers.

"It took us over two months to review the proposals, with input from the Chief of Imaging, Clinical Department Head, Department Administrator, Biomedical Chief, myself and all our radiologists," Amir Firdaus said. By June 2009, Agfa HealthCare was awarded the contract. All equipment was installed and working by August.

"What impressed me most as CEO was Agfa HealthCare's professionalism," he added. "They were always expert on every contact, continually making recommendations that were timely and practical. They simply had the best solutions that made the most sense."

Comments from both radiologists and clinicians have been very favorable. The CR systems easily allow full

spine studies, which were not as straightforwardly performed on older equipment. CR images display in seconds, so technologists can do a quick quality review, dispatch the image for study, promptly load the next cassette and make more images or bring in the next patient.

Radiologists like the ability to efficiently manipulate studies using the NX Workstation with MUSICA² image processing and enhancement software.

"Image resolution is superb and the software highly intuitive, making it easy to learn," Amir Firdaus adds. MUSICA² optimizes image quality by automatically and consistently adjusting the density and contrast of anatomic detail, reducing the need for windowing and leveling.

The complete switch to all CR imaging for general radiology occurred in under a week, with no hesitancy from clinical or medical staffs.

The DRYSTAR imagers also provide an important service since most Malaysian doctors outside medical centers still rely on hardcopies for study. "When we give patients these copies, we're confident that when they share them with other doctors, they see the highest level of competency and imaging technique." Amir Firdaus adds the second largest Malaysian hospital in the Gleneagles group is now considering this technology for its general radiology department.

"And we'll be evaluating other Agfa HealthCare solutions, including its latest PACS version, as work progresses on the new addition," he concludes. •

DID YOU KNOW...

- » Malaysia's former prime minister officially opened Gleneagles Hospital Kuala Lumpur in December 1997.
- » Residents of Kuala Lumpur are known as KLites.

"The CR system's resolution is superb and MUSICA² software highly efficient and intuitive, making it easy to learn."

AMIR FIRDAUS BIN ABDULLAH
Chief Executive Officer
Gleneagles Hospital Kuala Lumpur



Agfa HealthCare enables leading Chinese academic institution to manage over 1300 radiology exams per day

RIS/PACS solutions critical in enabling efficient management of growing patient volume

The China Medical University First Affiliated Hospital (CMUFAH) is a renowned academic institution in China and a general hospital with a history of over 100 years. It has 2300 beds and handles over 5000 outpatient visits a day.

The hospital was an early adopter of Hospital Information Systems (HIS) in China. In 2001, a Laboratory Information System (LIS) was installed and integrated with the HIS. In 2006, Agfa HealthCare's IMPAX 5.2 PACS and IMPAX China RIS I was installed as part of a digital radiology project. All radiology equipment including 16 major diagnostic modalities were connected, enabling the department to achieve

a workflow which managed over 700 examinations per day. "Following the PACS implementation, the hospital replaced its traditional 'naked-eye' observation of images with the review of softcopy images, significantly streamlining the workflow process. Since then, patient waiting times have been reduced, and medical treatment has become more convenient," states Dr. Shao Wei, CMUFAH's Chief Information Officer.

In early 2008, the collaboration between Agfa HealthCare and CMUFAH expanded into a second phase. The existing RIS/PACS solution was upgraded to also serve the different image intensive

IMPAX RIS/PACS

- » IMPAX 5.2 PACS with integrated IMPAX RIS configured for use in China.
- » IMPAX RIS/PACS solution manages and stores all images and data from multiple digital modalities.
- » RIS allows doctors to write structured reports in Chinese.

"The RIS/PACS is a great step forward in enabling an efficient and cost effective environment."

DR. SHAO WEI, Chief Information Officer
Chinese Medical University First Affiliated Hospital

"Following the PACS implementation, waiting times have been reduced and treatment is more convenient."

DR. SHAO WEI, Chief Information Officer
Chinese Medical University First Affiliated Hospital

departments outside Radiology, including Intervention and Cardiology. In this phase, the entire RIS/PACS solution was integrated with the HIS, allowing full digital workflow from patient registration to order entry to report distribution. Over 500 clinical workstations became image-enabled with a complete overview of available diagnostic data.

As part of the phase II project, the new IMPAX China RIS II replaced the old 4D based RIS. The new system provides features specifically tailored to the Chinese environment. The modularity and scalability of the architecture enables the solution to better handle high volume and complex workflows, enabling a further reduction in patient waiting times, with MRI and CT reports being provided 4 hours after the images were captured.



AGFA HEALTHCARE'S CONTRIBUTION

- » IMPAX RIS/PACS to manage entire radiology department workflow.

The overall new RIS/PACS solution greatly improves the efficiency and quality of diagnosis. Today, the number of radiology exams has grown dramatically, to 1300 per day, generating 100 gigabytes of image data each day. "During the first years following its installation, the technical performance of the IMPAX system has proven to be very sound and has continued to run smoothly, despite the ever increasing volume of exams," Dr. Wei states.

"IMPAX provides users at the hospital with web-enabled access to patient images, past studies, key RIS information, and procedure reports – all from a single desktop. Together the RIS and PACS manage the entire departmental workflow, including patient administration, image management, reporting and report distribution, promoting an efficient workflow and high-quality patient care. It is a great step forward in enabling an efficient and cost effective environment and we look forward to a continued and successful co-operation with Agfa HealthCare," Dr. Shao Wei concludes. •



DID YOU KNOW...

- » Shenyang's Olympic Sports Center Stadium hosted football matches during the 2008 Summer Olympics.

New diagnostic center offers nation's first integrated digital imaging service

Combined RIS/PACS with new CR digitizer for general radiology provides advanced imaging services to healthcare facilities throughout the region

Centrul De Diagnostic German (CDG), or German Diagnostic Center, is the first facility of its kind in Moldova and the nation's only facility offering fully integrated digital imaging and archiving capabilities from a RIS/PACS. CT, MRI, US and a CR digitizer all connected to its internal network, making the CDG a showcase for all healthcare providers in the region.

GLEAMING NEW CENTER FUNDED BY GERMAN INVESTORS IN LATE 2009

With a population of over 3.5 million, Moldova is situated between Romania to the west and Ukraine to the north, south and east. It became a parliamentary republic in 1991 following independence from the former Soviet Union.

As a relatively new nation, its growing economy has, over the years, drawn businesses and investors from Western Europe and other major regions. Such is the case with CDG, a private clinic opened in October 2009 in the nation's capital Chisinau, by Berlin-based German Service of Diagnostics GmbH as a pilot project. It's the first diagnostic center in Eastern Europe funded by these investors.

The center occupies a new three story, 2,000 square meter building in the downtown area, among the most modern in Chisinau. Inside are contemporary, tastefully decorated patient lounges, a coffee shop and children's play area. Also contained are the latest digital imaging modalities including a 1.5 Tesla MRI scanner, 64 slice CT unit, cardiac



and conventional ultrasound, digital fluoroscopy as well as a conventional screening mammography unit. CDG plans to perform nearly 60,000 studies in 2010, and expand its current Monday through Saturday service to a 24/7 operation.

Such expectations required an efficient way to link and archive images from its digital modalities as well as electronically manage patient scheduling, dictation, report generation and other tasks. A key criteria, says Alexander Gutu, CDG's Managing Director, was a fully integrated solution from one supplier versus different products cobbled together from multiple companies.

PROMOTING CENTER'S LAUNCH TO PUBLIC/PROFESSIONALS CRUCIAL TO SUCCESS

"The investors' goal was to make this a showcase for the latest digital diagnostic technology so it would attract both physicians and patients seeking state-of-the-art medicine," said Alexander Gutu. "It's been highly successful, thanks to aggressive public promotion using regional advertising, as well as special events for physicians, health ministers and other care providers. A recent 'open house' for doctors and clinicians drew more than 350 attendees."

"Most Moldovan hospitals and clinics use a wide range of conventional imaging equipment supported by paper

AGFA HEALTHCARE'S CONTRIBUTION

» IMPAX RIS/PACS linking multiple modalities for a more productive, efficient workflow that expedites patient care. CR 35-X digitizer with MUSICA² process enhancement software providing optimal, consistent image quality.

"The investors' goal was to make this center a showplace for the latest digital diagnostic technology."

ALEXANDER GUTU, Managing Director, Centrul Diagnostic German (CDG), Moldova



"We chose Agfa HealthCare because its individual systems are fully integrated. This way, we avoid having different components from various companies that don't always work well together."

ALEXANDER GUTU, Managing Director, Centrul Diagnostic German (CDG), Moldova

management and record keeping, which is slow and error-prone," he added. "So the medical community here, many of whom have been trained outside Moldova and are quite familiar with digital technologies, seem to appreciate and use our services whenever possible."

In selecting the first RIS/PACS in Moldova, CDG interviewed multiple suppliers and chose Agfa HealthCare's newest IMPAX 6.3 system and software, along with its 5.6 version RIS and a CR 35-X computed radiography digitizer with NX workstation and MUSICA² image enhancement software.

"We preferred Agfa HealthCare primarily because its RIS, PACS and CR systems are provided as a fully integrated solution from one company that eliminates the complexity of having multiple products from different suppliers," Alexander Gutu said. "This saves significant time and cost when service issues arise, or parts and upgrades are needed. Everything is handled in a single contact. We also liked the company's professional yet friendly attitude, as well as its solid experience in similar centers across Eastern Europe. They have a good reputation here."

CDG's 12 full-time radiologists have been impressed with the IMPAX system's ease of use and the image quality achieved with the CR 35-X and its MUSICA² software.

"They really like the images and how the software easily permits maximum visualization of subtle details for better reading comfort," Alexander Gutu said. Also noted is the system's ability to automatically display the appropriate grade of image enhancement regardless of the exam being conducted. "This is not an easily impressed group. All our

radiologists have been trained and have practiced in Germany and Austria before coming here, and are keenly aware of the latest digital techniques and standards associated with modern diagnostic imaging. •

IMPAX RIS/PACS; CR 35-X

- » IMPAX RIS/PACS/Speech provides a complete, fast digital workflow.
- » Fast access to patient information: records, scheduling, outcomes, follow-up.
- » Increases productivity with quickly available data contributing to more informed decisions.
- » Faster report turnaround times for decreased treatment cycles.
- » Digitizer is versatile; compact for general radiology, extremities, orthopedic and pediatric exams.

DID YOU KNOW...

- » The CR 35-X can be used inside the X-ray procedure room so the technologist never has to leave the patient.
- » Chisinau, the largest city in Moldova, has the highest proportion of green space among major European cities.

RIS/PACS accelerates workflow by distributing images to more than 700 display stations throughout large Sao Paulo hospital

Private Catholic facility also installs multiple CR solutions to transition enterprise-wide imaging to digital format

INTERVIEWEE Milton Alves, Information Technology Manager, Hospital Santa Catarina



Hospital Santa Catarina (HSC) recently installed multiple Agfa HealthCare solutions to improve the clinical workflow in its Center for Diagnostic Imaging. IMPAX RIS/PACS manages, distributes and archives all images and related information from a patient's initial visit, enables digital dictation, and facilitates preparation and dispatch of the final radiology report. Two CR 30-X solutions for general radiology and two CR 85-X units for general radiology and mammography were also acquired. A DRYSTAR 5503 hardcopy imager was installed for high resolution printing in multiple formats. It is the first time in the hospital's 100 year history that all diagnostic imaging is fully digitized.

MAJOR EXPANSION OF DIGITAL TECHNOLOGY SUPPORTS QUALITY CARE

HSC is a recognized part of Sao Paulo's select group of world class medical facilities. The 327-bed hospital primarily serves the private sector and runs at 80 percent occupancy. HSC accepts patients not only from the greater Sao Paulo region, but also from all over Brazil who come for complex treatments not available in other regions. HSC specializes in Neurology, Cardiology, Orthopaedics and Minimally Invasive Surgery. The hospital treats more than 25,000 patients per month.

HSC is in the heart of Sao Paulo's financial district among the towering

SOLUTION BOX

- » RIS/PACS are fully integrated with the HIS and ERP platforms used by HSC's management.
- » CR 35-X, a highly versatile, small-footprint digitizer that is specially designed for decentralized CR environments. With the addition of a cart, the digitizer is totally mobile and can be moved anywhere it is needed.
- » CR 85-X, a multi-application digitizer, benefiting from three different image resolution modes offering excellent productivity for a complete range of clinical applications

"Digital imaging is no longer a thing of the future. It is today and now. It defines the era and will have a significant impact on the future of healthcare."

MILTON ALVES
Information Technology Manager,
Hospital Santa Catarina, Sao Paulo, Brazil

skyscrapers, major banks and multinational companies. The 52,000 m² hospital is a large complex of six buildings. A convent houses the Santa Catarina nuns, the hospital's founding order. A beautiful baroque chapel is available for the patient's and staff's spiritual needs. Rooms and services are designed for comfort and wellbeing and offer many 4-star amenities such as catered meals and beauty salons.

In keeping with the hospital's philosophy of quality medical care, HSC recently embarked on an ambitious plan to modernize its infrastructure, update its radiology equipment and fully digitize all aspects of information technology (IT).

"Relations with Agfa HealthCare are very professional yet unique because of the interest the company has showed in meeting our needs and objectives."

MILTON ALVES
Information Technology Manager,
Hospital Santa Catarina, Sao Paulo, Brazil

Milton Alves, IT Director at HSC, says that the main objective of a recent US\$1M investment was to improve care, expedite service and provide Physicians with the best possible technology on the market.

"Before RIS/PACS, we were using conventional radiology systems to obtain x-ray images, as well as manual image storage and retrieval, along with typed or handwritten reports to attending Physicians," he says. "Our new RIS/PACS system offers higher image quality for a more detailed examination and precise diagnosis. Clinicians can view studies from different angles making diagnosis more exact, and access these images from over 700 workstations within the hospital."

At HSC, where there are over 8,000 image-assisted diagnoses per month, this means huge time and staff productivity savings as well as faster, more accurate Radiologist reports back to the patient's Physician. The RIS/PACS features sophisticated voice recognition technology for results dictation so final reports can follow the same fast pace as diagnoses.

Once HSC established criteria for a new RIS/PACS and stand-alone digital imaging systems, five initial suppliers responding to its Request for Proposal were narrowed to three, with Agfa HealthCare being the final winner of the contract. Milton Alves explains "It was

DID YOU KNOW...

- » HSC plans to donate 12% of its 2010 profit to the Associação Congregação Santa Catarina (ACSC) for social assistance. About US\$ 24M will go to the ACSC's schools, day care centres, senior citizen residences and primary medical assistance facilities that serve Brazil.
- » In 2009, HSC's original neoclassic façade was restored and illuminated, making it an architectural landmark on Avenida Paulista.



not so much a matter of price, but image quality, ability to easily interface with previously existing hospital systems, and Agfa HealthCare's international reputation that led HSC to choose the company in June, 2009. The IMPAX RIS/PACS, CR solutions and DRYSTAR thermal imager have been up and running since November 2009."

DOCTORS READILY EMBRACE NEW SOLUTIONS

Implementing the new solutions went exactly as planned. From the beginning, there was commitment and dedication from all the professionals involved. Doctors, Nurses, System Analysts and Administrative Staff all worked hard with Agfa HealthCare so that everything would go smoothly. This commitment resulted in a very successful installation with all deadlines met.

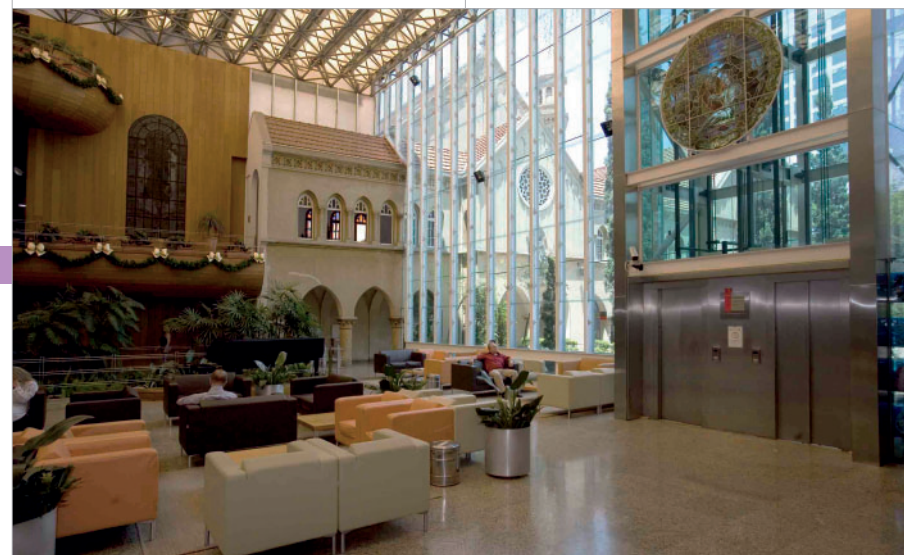
"HSC Physicians were immediately pleased to have access to this new

AGFA HEALTHCARE'S CONTRIBUTION

- » RIS/PACS solutions manage the entire workflow from patient visits to digitized medical images for diagnosis
- » A recognized company with IT knowledge in the medical sector that specializes in large hospital and multi-site uses.
- » A multi-professional team of highly trained professionals able to meet all requisites of medical technology and healthcare IT.

technology," says Milton Alves. "Their enthusiasm became contagious, and soon all teams had adapted easily to the new clinical work flow."

"The general opinion among Clinicians and Administration is that the RIS/PACS solution is a success". Added Milton Alves. "These solutions have surpassed all our expectations and have met all objectives. The work now flows faster and the patients receive excellent care." •



Healthcare transformation: the combined benefits of CR and DR

Agfa HealthCare delivers on next level needs for digital radiography solutions

Interview with Christian Reinaudo, President Agfa HealthCare and Dirk Debusscher, Vice President Imaging Agfa HealthCare

Following up on several recent announcements made on new introductions in the field of Direct Radiography (DR) and Computed Radiography (CR), THERE magazine caught up with two business leaders at Agfa HealthCare who were part of the original drive behind their development. Our aim: to understand the reasoning behind their launch, the market needs the new solutions cater to, and their expectations for future developments in this field.

Agfa HealthCare is launching two new DR solutions to the market, the DX-D 500* and the DX-D 300 and a new CR solution called DX-G. What is the strategy behind these launches?**

Christian Reinaudo: The introduction of DR to our portfolio and the expansion and evolution of our CR technologies is a clear strategic step. As a healthcare company, we have learned that the transformation of our customers needs is a process which takes time and requires a number of dedicated steps. That means that we strongly believe in the introduction of both DR and CR solutions, in a hybrid environment, which will dominate digital radiography for the next years. Having understood this, we have resolutely chosen to introduce both the DX-D family and the DX-G, the first in our next generation CR systems which complements DR through its flexibility.

Dirk Debusscher: If you look at our extensive history in the healthcare market, Agfa HealthCare has always been recognized as a leading provider of some of the most advanced solutions in analog and digital radiology to date. Today, we are able to offer our customers a full portfolio of CR systems, from low volume solutions to high end systems which meet the demand of multiple X-ray rooms, and even CR solutions providing DR image quality.

The move to DR solutions was, as a result, a natural evolution in our technological transition, as much as it was an evolution to meet our customers' increasing demands for more productivity in their workflow. The recent introduction of our DX-D 500 Direct Radiography System was very much driven by this demand.

These solutions are typically used in environments where the customer is looking for high productivity without compromising on image quality. The introduction of our DX-G (G for General Radiography) solution also works along this principle. As our customers evolved, their demands for CR solutions that can handle more and deliver better image quality, either in partnership with DR or as stand-alone solutions, were clear. The DX-G is different, even unique, as it manages to read both standard phosphor plates and high-end needle detector plates for the total range of General Radiography applications, making dose reduction possible which is, for example, crucial in neonatal and pediatric exams. So briefly summarized, it offers the flexibility of CR and supports the demand for higher image quality in one solution.

Can you tell us more about the benefits of these new introductions? What makes them unique?

Dirk Debusscher: From a technological standpoint we have ensured that our DX-D solutions are able to meet the highest quality standards. We decided to aim high from the first solution onward as it is our ambition to ensure we meet and exceed the image quality and dose reduction demands of our customers.

Our recently introduced DX-G CR system aims to fill a gap in General Radiography and is the first of a series of solutions which seeks to improve the flexibility of radiology needs. It is able to process both standard phosphor plates and needle-based plates and offers a unique 5 cassette drop-and-go buffer system to improve overall workflow. With the DX-G's needle technology,

"We want to introduce and be part of the digital transformation through DR, but ensure we maintain a clear focus on our customers' needs, with CR as the transitioning technology."

CHRISTIAN REINAUDO,
President Agfa HealthCare

we are again offering the potential for dose reduction without affecting the image quality

What makes both our CR and DR solutions unique is that they are all offered with our gold standard MUSICA² image enhancement software and our leading NX workstation, Agfa HealthCare's image identification and quality control tool. That means that when technologists work with both our CR and DR solutions, they use the same workstation interface and get images with the same look and feel.

So a clear statement, CR is here to stay as part of the overall and ongoing transformation of healthcare?

Christian Reinaudo: We clearly see that CR has a role to play in the overall transformation of healthcare. It is part of the ongoing transformation in digital technologies and until DR can offer the flexibility of CR solutions in the fullest sense, it will continue to play a key role as a technology. We have also long understood that any change in healthcare technologies must be achieved at the pace of our customers. As we see CR and DR evolve in many US and European markets, we also note that traditional CR solutions are playing a key role in developing



CHRISTIAN REINAUDO

DIRK DEBUSSCHER

markets, which are moving away from analog based systems to digital.

The second part of this story has to do with affordability. In the US and Europe, jumping ahead to systems which skip a number of technological steps would mean that we would be forced to do this at a significantly higher financial cost to our customers.

With healthcare finances already under pressure, this would not be an effective move and we would not be responding to our customers' realistic needs. So the strategy is clear – introduce and be part of the digital transformation through DR, but ensure we maintain a clear focus on our customers' needs, with CR as the transitioning technology. The proof here is in the figures as 90% of our DR installations have been hybrid solutions, combining the versatility of CR with the productivity of DR.

So in brief, jumping ahead will only mean that we lose sight of the customers' needs. Our role is to prepare and support the market's growth by working at the pace of the market and not forcing it.

You talked about different geographic regions and their needs – what are your ambitions with CR and DR on the global market?

Dirk Debusscher: Our strategy is clearly a global one. We aim to meet the needs of both strongly developed healthcare markets as well as those that are transitioning toward digital solutions. Our extensive portfolio of solutions is geared towards meeting this demand and we aim to ensure we can deliver to the needs of any facility, of any size, anywhere in the world with our CR and DR systems.

What will the future bring – more DR and CR from Agfa HealthCare?

Dirk Debusscher: You can count on us in both cases. We are already taking steps in the expansion of our DR portfolio with the launch of our DX-D 300 U-arm solution. On the level of CR, the launch of our DX-G is only a first step in a series of next generation CR systems and more will be revealed in due time.

Christian Reinaudo: Our path forward is clear. Yes, Agfa HealthCare is investing to expand its IT solutions, such as PACS, Clinical Applications and Data Centers to meet the increasing demand for integrated and efficient care, across departments, hospitals and regions. But we have also understood that, while regional and national care systems are the ambition, the road towards

"DX-D 500 Direct Radiography System is typically used in environments where the customer is looking for high productivity without compromising on image quality."

DIRK DEBUSSCHER,
Vice President Imaging

achieving those requires a number of concrete transitional steps. Fully functional digital systems is the eventual ambition, but while the technology continues to evolve, we need to ensure our customers can continue to deliver the best care to their patients today. It is therefore up to the existing technologies to complement the new and while DR delivers on the productivity needs, CR still has the advantage of versatility. Where both are needed, and this is in a majority of cases, Agfa HealthCare will provide. Healthcare transformation is about a gradual change, which will in turn, deliver stability, cost efficiency and solutions which support today's patients, and transition us into tomorrow's healthcare. •

BREWELSKLOOF HOSPITAL, WORCESTER, SOUTH AFRICA

Tuberculosis hospital embraces digital workflow in fight against TB and HIV/AIDS

CR 30-X tabletop system, RIS and IMPAX 6.3: outstanding cost/value ratio along with exceptional performance

INTERVIEWEE Daniel Theron, M.D., Medical Superintendent

Significant improvements in radiology department efficiency, the delivery of patient care, exam management and results turnaround have been noted in just six months after the deployment of Agfa HealthCare's Computed Radiography (CR) solutions along with its Radiology Information System (RIS) and IMPAX Picture Archiving and Communications System (PACS). These systems provide rapid access to high-quality images that can be distributed hospital-wide to affiliated clinics and to physicians' offices using secure Internet links.

IMPAX TO HELP CLINICAL STAFF MORE EFFECTIVELY TREAT TB AND ASSOCIATED HUMAN IMMUNODEFICIENCY VIRUS (HIV)

While tuberculosis (TB) and the need for dedicated TB hospitals have diminished in many parts of the world, TB rates in South Africa's Western Cape region are among the highest on the continent, at epidemic levels. Overall, nearly half a million new cases occur in the country every year. It is in this environment that you will find 206-bed Brewelskloof Hospital, a specialized TB treatment center roughly 110 km west of Cape Town. The first IMPAX PACS in South Africa – and among the first in the sub-Saharan region – went online in January 2009 to help physicians and clinical staff more effectively treat TB and associated Human Immunodeficiency Virus (HIV) conditions that often accompany it.

Five physicians supported by 166 staff members handle 700 admissions annually to the 60-year old state-funded hospital. About 1,500 inpatient x-ray studies are performed annually, with an additional 3,000 done on an outpatient basis. The biggest challenges are infection control, patient compliance

with TB treatment, daily care of extremely ill HIV patients, and staff recruitment and retention. In addition to IMPAX 6.3 PACS, Agfa HealthCare's RIS and CR 30-X systems used primarily for chest and extremity studies round out the hospital's new digital solution.

DIGITAL WORKFLOW ELIMINATES LOST OR MISSING HARD COPY IMAGES AND DATA

"We were constantly frustrated by x-rays and paper-based data going missing in the hospital, as well as material sent to regional health clinics getting lost," says Daniel Theron, M.D., Medical Superintendent at the facility.

"Like medical professionals everywhere, we're well informed of new digital systems and techniques, and realized our workflows could no longer meet the speed and productivity expectations of 21st century healthcare."

"Agfa HealthCare's solution offered the best cost/ratio value, along with exceptional performance and a very supportive team."

DANIEL THERON, M.D.,
Medical Superintendent



CR/RIS/PACS

- » Allows images and data to be quickly sent within a hospital, throughout a region or around the world. Ability to digitally manipulate images for greater detail and clarity.
- » Produces multiple original images that can be immediately shared on a secure digital network. Eliminates searching for lost hard copies.
- » Improves departmental productivity and expedites patient treatment. Medical staff feels they are at forefront of their profession.

A formal tender was issued by the Western Cape Health Department for a standalone CR system and a combined RIS/PACS to digitize and manage all radiology exams at the facility. "Agfa HealthCare's CR 30-X tabletop system, RIS and IMPAX PACS were selected because they offered the best cost/value ratio along with exceptional performance and a very supportive team," Dr. Theron says.

All equipment was installed in late December 2008, taking about two weeks because the radiology department had to be specially cabled for digital infrastructure. Agfa HealthCare managed and implemented this process as part of the contract. Included was a network of four diagnostic workstations, four review monitors, a server and CD writer, and a DRYSTAR 5302 tabletop direct digital imager. "This allows us to give discharged patients a CD or print to share with their own doctor," Dr. Theron says.

"Having images quickly available at the touch of a button expedites patient treatment. A single, high-quality digital exam can be quickly distributed to multiple workstations, reading monitors or secure personal laptops. Images, clinical notes and patient demographics now flow rapidly throughout the department, to wards or the surgical theater. Data can also be sent via a secure Internet link to outside clinics or physician offices. Best of all, hard copy images and reports do not go missing anymore," Dr. Theron states. He adds that the depth of information rapidly available in a digital workflow also provides excellent patient tracking and treatment efficiency.

AGFA HEALTHCARE'S CONTRIBUTION

- » CR 30-X Digitizer, IMPAX RIS/PACS, DRYSTAR 5302 tabletop laser imager.



"Having images quickly available at the touch of a button expedites patient treatment."

DANIEL THERON, M.D.,
Medical Superintendent

Digital image manipulation is also a key benefit. "If an image is too dark, we can digitally correct it without having to retake it, zoom in on specific areas and share images with colleagues in consultation," Dr. Theron says. "Side-by-side, on-screen comparison with previous images is also possible, which often includes older exams made in our previous workflow that have since been scanned into the PACS."

AGFA HEALTHCARE PROVIDES NOT JUST EQUIPMENT, BUT A WHOLE NEW WAY OF WORKING

In addition to the equipment's overall performance and technical superiority, the doctor adds that a vital benefit was Agfa HealthCare's formal analysis and consultation in switching from analog to digital workflows. "Their technical team and project leader invested many days studying our old processes, learning our desired improvements, and optimizing their products to achieve our goals in a new workflow," Dr. Theron says. "As a

result, our entire working environment has been improved. We've received more than just a digital solution, but rather a whole new working mindset that fits our needs, which is highly productive and far less frustrating. It helps focus our efforts on expedient patient treatment versus the drudgery of lost file searches or copying piles of paperwork."

Finally, Brewelskloof Hospital sees a somewhat unconventional benefit from its new RIS/PACS system: a way to recruit new physicians. "Let's face it. Doctors don't stand in queues to work at TB hospitals, especially in rural areas like ours," Dr. Theron says. "So having this up-to-date technology is critical for raising staff morale, along with acquiring and retaining valuable medical professionals who almost always prefer working at the forefront of their profession versus some place that's behind." •

DID YOU KNOW...

- » Brewelskloof Hospital also provides TB outreach services through 21 District Clinics as well as area correctional facilities.
- » The proportion of people becoming sick with TB each year is stable or falling worldwide but, because of population growth, the absolute number of new cases is increasing.

Cluster PACS helps serve over 1 million people

Fast, efficient medical imaging shared between two major Hong Kong hospitals improves healthcare delivery in a hospital cluster

INTERVIEWEES Derek Kwan, Sr. Technologist, Department of Radiology • Anthony Chan, Manager, Department of Radiology & Nuclear Medicine

The New Territories West Cluster (NTWC) refers to one of the seven public hospital clusters under the administration of the Hong Kong Hospital Authority (HA). NTWC is one of the world's most densely populated areas – about 1.1 million people, or one-seventh of Hong Kong's population lives here. The HA was established in 1990 and currently manages 41 public hospitals/institutions. It delivers comprehensive secondary and tertiary care and medical rehabilitation through its hospitals and clinics.

HIGHLY ADVANCED MEDICAL SERVICES AID LIFE EXPECTANCY

Hong Kong is one of the world's healthiest places thanks to its sophisticated medical services and highly developed early health education and medication programs. Average life expectancy is 84 for women and 78 for men, the second highest in the world.

Yet despite its huge population, NTWC is served by four hospitals – Tuen Mun Hospital (TMH), Pok Oi Hospital (POH), Castle Peak Hospital (CPH) and Siu Lam Hospital (SLH). TMH and POH are just eleven kilometers apart.

TMH is a 1,822 bed, 11 story facility covering 212,634 square meters. A separate four story rehabilitation facility, ten story ambulatory care structure, oncology center and pathology building round out the campus.

POH has a 622-bed capacity and a variety of health services in a new, 13 story building that houses a specialized outpatient department, 24-hour emergency center, family medicine, psychology, a diabetes center and podiatry clinic. It also plans to develop an ambulatory surgery center.

AGFA HEALTHCARE'S CONTRIBUTION

» IMPAX 6.3 is an integrated RIS/PACS/Reporting solution connecting all image and information systems within a hospital, hospital group or geographic cluster so data can flow seamlessly and securely to all clinical areas.

STAFF SHORTAGE, HUGE WORKLOAD CHALLENGE HEALTHCARE PROVIDERS

"Because both hospitals (TMH & POH) serve an area of over a million people, and together perform more than a half million imaging exams annually that typically require multiple views, our volume is tremendous," says Anthony Chan, Department Manager at TMH's Department of Radiology and Nuclear Medicine.

"IMPAX has been extremely reliable and highly available, offering fast access to images."

DEREK KWAN, Sr. Technologist, Department of Radiology

All this occurs amidst a shortage of qualified technologists and radiologists in both hospitals that, according to Anthony Chan, results from a huge demand that local medical and allied health training institutions currently can't meet.

This challenge, combined with the sheer volume of work, contributes to long wait times for elective x-ray exams in the public hospital system. Screening mammograms are sometimes scheduled a year in advance. Waits for elective MRI or CT studies are measured in weeks or months. Volume delays also negatively impact inpatient length-of-stay. In 2006, the NTWC sought to improve staff efficiency and cut wait times by installing

IMPAX 6.3

- » Provides a complete digital workflow that is faster and more efficient than traditional processes.
- » Supports one hospital or multiple facilities in an enterprise-wide solution, across town or throughout a region.
- » Full DICOM/HL-7 compatibility links IMPAX to a range of modalities and devices from other sources. Also provides easy data migration from current or original databases.



a single-platform PACS linking TMH and POH. The unified system, called a cluster or enterprise PACS because it integrates images and data within the cluster, replaces the mini-PACS used in TMH's radiology department for over 8 years that was unable to communicate with the POH PACS installed in 2007.

Digitally linking both facilities also promotes other efficiencies. TMH and POH work under the same management structure and routinely transfer patients between each hospital. Also, patients at either hospital are managed by the same clinical teams, and clinical staff at both work for the same department heads. And radiological images taken at either hospital or in surgical, emergency or cardiovascular suites needed to be available to physicians across each facility.

A tender was announced, and of two finalists, an IMPAX 6.3 PACS from Agfa HealthCare was selected because it met all requirements to help accelerate image and data transfer within the cluster, help eliminate lost or missing hardcopy images, and create a seamless healthcare

DID YOU KNOW...

- » Hong Kong pioneered liver transplantation, being the world's first to perform an adult to adult, live donor transplant in 1993.
- » There are an average 6,300 people per square kilometer in Hong Kong NTWC.
- » TMH also uses Agfa HealthCare's Cardiovascular Information System (CVIS) in its cardiology suite.

service between the two institutions. The efficiency that resulted has since helped decrease x-ray wait times. POH went online in early 2007. TMH tied into the PACS the following year making their digital x-ray exams easily and quickly available at POH.

VENDOR NEUTRALITY A KEY ADVANTAGE IN INTEGRATION AND DATA MIGRATION

Derek Kwan, Senior Technologist at POH, says: "The main IMPAX server located here has been extremely reliable and highly available, offering fast access to images, including pre- and ad-hoc fetch of historical data." It also provides long-term storage for digital images for each hospital, as well as a workflow manager program, redundant database, connectivity manager and other valuable software including vendor-neutral integration with some 90 digital workstations enterprise-wide (53 IMPAX client stations together with 36 Web client ones). Also included are units in the Casualty Department and others designed for orthopedics at TMH's Ambulatory Care Center. Finally, there are custom displays associated with digital mammography, MRI and CT scanners.

Derek Kwan says the standards-compliant IMPAX PACS is fully compatible with various devices, making data migration from older systems easy to perform. It also supports the HA's territory-wide ePR (electronic patient record) database started 10 years ago. Physicians and clinicians regularly access ePRs through web-based tools

"Department and clinical staffs have quickly adapted to IMPAX and the efficient workflow it offers."

ANTHONY CHAN, Manager, Department of Radiology & Nuclear Medicine



that now include images/data from the cluster PACS.

Anthony Chan says: "Radiology Department and TMH clinical staffs have quickly adapted to IMPAX and the efficient workflow it offers. It's always up and available." Adds Derek Kwan: "IMPAX has provided a good solution to our many challenges. I'd recommend it to other hospitals facing similar ones." •

SPEED

Even bamboo, the fastest growing plant on earth, knows its limits and seeks solidity in compactness. Speed is what makes Agfa HealthCare's computed radiography (CR) solutions versatile... compactness makes them easy to integrate in any environment.



News from Agfa HealthCare

Agfa HealthCare expands consumables offering with contrast media solutions

Agfa HealthCare recently announced that it had expanded its current offering of consumables through the acquisition of Insight Agents GmbH in Germany. Insight Agents is a European developer and producer of contrast media, with business activities in multiple European countries. Contrast media are primarily used during medical imaging examinations with x-rays, computed tomography (CT) scans and magnetic resonance imaging (MRI), either to highlight specific anatomical structures (mostly vessels) or to perform functional imaging. The expansion into contrast media is an important step for Agfa HealthCare as it builds and expands its diagnostic imaging portfolio beyond pure hardware, software and film.

“The inclusion of contrast media into our portfolio is an important strategic step towards future growth opportunities”, states Christian Reinaldo, President of Agfa HealthCare. “Agfa HealthCare is a strong player in the radiology market with both imaging and IT solutions. Today, we further enhance our business with a set of products that are increasingly used for diagnostic imaging procedures. These products are a logical addition to our portfolio of film, chemicals and printers and will be distributed through our extensive logistics and distribution network.”

“The acquisition of Insight Agents allows us to offer to our customers a broader range of products for medical imaging”, states Dirk Debusscher, Vice President Imaging at Agfa HealthCare. “Agfa HealthCare has always been a leader with its film & print solutions. The decision to purchase a new line of business was made to ensure that we continue to offer a range of diagnostic imaging products over which we have full control, enabling us to deliver the highest quality radiology solutions, on time, all of the time.”

At present, Agfa HealthCare will distribute its new portfolio of contrast agents across parts of Europe, but is investigating a potential expansion of the number of markets it will serve in the future. •



Agfa HealthCare's Peissenberg facility wins “Factory of the Year” award in the category “Outstanding Assembly”



Agfa HealthCare has been awarded the “Factory of the Year” prize in a competition organized by the German magazine “Production” and management consulting firm AT Kearney. The factory at Peissenberg, Germany won in the category “Outstanding Assembly”.

Agfa HealthCare's Peissenberg facility employs approximately 270 staff members and produces around 11,000 units in the field of medical technology, including the company's full line of Computed Radiography (CR) solutions and diagnostic imaging printers. Production processes established in the early 1990's have ensured the plant is able to produce the high quality equipment, on schedule, and at a very competitive price-performance ratio.

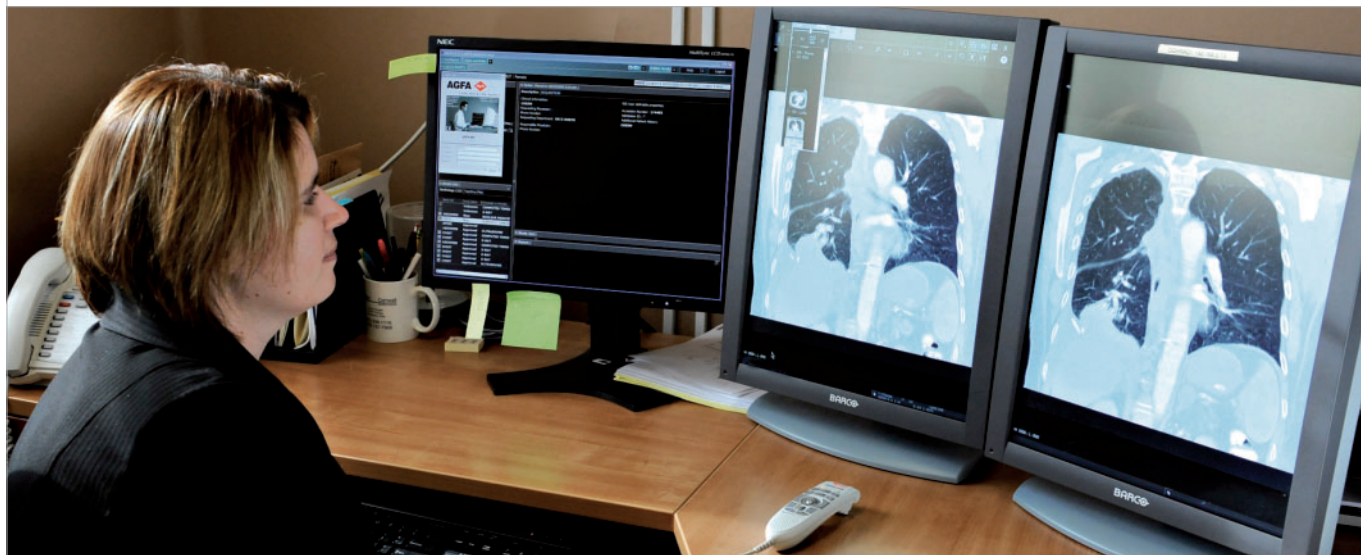
The most modern production methods, such as group work, Balanced Scorecard, Kanban, Kaizen, and TQM are used at the facility. High-precision, automated manufacturing equipment and highly qualified staff are the foundation of the production process and enable the facility to optimally serve its global customers, in a flexible manner, even in economically challenging times.

“This is a great achievement for us,” states Dirk Debusscher, Vice President Imaging at Agfa HealthCare. “The award is a key motivator for us all and specifically for the team in South Germany and is proof of our continuous drive to achieve even higher quality and efficiency levels.” •

Long waits for x-ray results dramatically cut

A combined IMPAX PACS, RIS and Reporting solution helps this hospital dramatically reduce radiology report turnaround from weeks to hours.

INTERVIEWEES Dr. Boubalos, Radiologist • George Gref, PACS Administrator • Julie Lampron, Director Diagnostic Services



Cornwall Community Hospital (CCH) is a 170-bed acute care facility located at two sites in this Eastern Ontario city. It provides in-patient, ambulatory and community based services, and needed a way to improve its radiology department report turnaround to support better delivery of patient care.

ALL-DIGITAL DEPARTMENT SPEEDS WORKFLOWS

Waiting in line can be annoying, but imagine having to wait weeks or even months for final results of a medical exam. Yet, many Canadian healthcare facilities face such a challenge and are increasingly turning to new technologies to cost-effectively optimize workflows.

CCH approached Agfa HealthCare to develop a more efficient, yet secure, means of managing and storing patient exams. Additionally, it needed to optimize clinical workflow in the radiology department to shorten times between scheduling and performing an exam, as well as disseminating and reporting findings and delivering the

final results to the patient. As a dual-site facility, CCH also wanted to decrease wait times associated with sharing patient files and images between the two hospitals.

“It could sometimes take weeks or even months before the final report was delivered back to the patient,” said Julie Lampron, CCH’s Director Diagnostic Services. “To ensure we were providing the best possible care, we decided to make the radiology department all-digital so physicians could access

“The ability to quickly turnaround high quality digital images and share securely between sites helps us work more efficiently and speeds critical results to our patients.”

Dr. BOUBALOS, Radiologist

IMPAX PACS, RIS, SPEECH

- » Offers a complete electronic workflow that is fast, efficient and of high quality.
- » Instant access to patient information, increased productivity and more informed decisions.
- » Faster report turnaround time for decreased treatment cycles.

patient images quickly, while at the same time, significantly condense the interval between patient assessment and diagnosis.”

ABILITY TO FIND AND COMPARE CURRENT AND ARCHIVAL IMAGES

CCH went through a three-month overhaul of its radiology department to become the first healthcare facility in North America to deploy the IMPAX Speech Recognition System integrated as a single solution with an IMPAX PACS and RIS.

CCH has since increased productivity by giving physicians the ability to

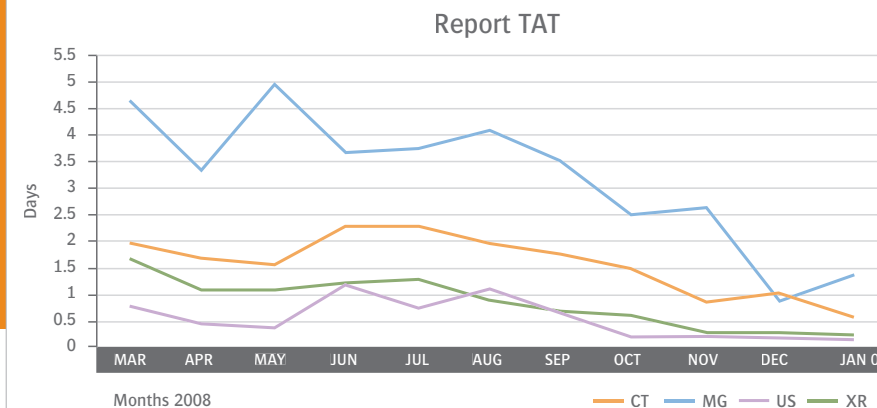
“Not only does IMPAX provide a more complete view of a patient’s radiology history, it also helps decrease wait times sending and processing a patient’s exam.”

GEORGE GREF, PACS Administrator

quickly share images and reports electronically, as well as easily order and manage diagnostic imaging exams and promptly generate patient reports using the speech recognition technology. This allows authorized users at either CCH location to aggregate and view current and prior exams and associated radiology information to make more informed decisions, regardless of the site where the exams originated.

IMPAX PACS now enables CCH radiologists to produce combined patient results – images, and information – within seconds of completing the exam. Data is entered once and shared throughout the system, saving significant time for patients and physicians, and decreasing lost or misplaced patient information.

“The benefits of an integrated PACS, RIS, and speech solution extend beyond the radiology department. The ability to quickly turnaround high quality digital images and share securely between sites helps us work more efficiently and



AGFA HEALTHCARE’S CONTRIBUTION

» IMPAX PACS/RIS/Speech offering an integrated solution to help improve workflow through the entire imaging chain.

speeds critical results to our patients,” said Dr. Boubalos, Radiologist at CCH.

“Not only does this system provide a more complete view of a patient’s radiology history, it also helps decrease wait times sending and processing a patient’s exam; we can create a copy of patient images on a CD within an hour of the exam,” said George Gref, PACS Administrator, CCH.

REPORT TURNAROUND DROPS FROM WEEKS TO HOURS

In only one year following implementation, CCH’s turnaround time for a validated report has improved significantly, with a majority

of reports ready in about 12 hours. This dramatically reduces patient wait times for receiving final results.

The integrated PACS/RIS/Speech solution has also helped physicians efficiently deliver results and helped to lower the number of redundancies involving misplaced or inconclusive images. Through the IMPAX centralized information system, physicians can instantly view and contrast past and current exams to provide accurate, comprehensive diagnosis. •

DID YOU KNOW...

- » A huge construction and renovation project is now underway at CCH that will include new operating rooms, emergency, and radiology facilities.
- » Cornwall is located equidistant from two of Canada’s major cities. It’s 96.5 kilometers southeast of Ottawa, Canada’s capital, and 96.5 kilometers southwest of Montreal.



CR solution at Congo's largest public imaging department lifts quality of care and inspires healthcare community



"The workflow efficiency gain is impressive. It takes only 30 minutes for a patient to come in, be examined and leave with a CD. Even for radiologists, the convenience is enormous: we finally can work at a reasonable speed in a very comfortable way."

DR. GETTY LUYEYE, Head of Imaging Department

General Hospital Kinshasa, the largest public hospital in the Democratic Republic of the Congo, has acquired its first Computed Radiography (CR) solution with Agfa HealthCare's CR 35-X multi-application digitizer and IMPAX MA3000 diagnostic display station. "We are the first public hospital in the Democratic Republic Congo to own a CR solution, and extremely proud of it – we manage the investment profitably, provide better and lower cost care and inspire our colleagues", explains Dr. Gertrude ("Getty") Luyeye, Head of the Imaging Department.

With 2,000 beds and the largest radiology department in the country, the "Hôpital Provincial Général de Référence de Kinshasa" (popularly called 'Mama Yemo') is Democratic Republic Congo's largest public hospital. It has taken up the mission to provide the best possible healthcare for patients of all ranks including those less fortunate.

"Investing in technology instead of consumables brings a sense of responsibility and long-term commitment."

DR. GETTY LUYEYE, Head of Imaging Department

"Our big challenge is to provide a good health care service at a low cost to the broadest possible segment of the population. The government has given its public hospitals autonomy in terms of finance and management, so we needed to find a model that will allow us to meet our goals", confirms Dr. Luyeye. "We have to collect the funds to invest in our infrastructure. We can now manage thanks to our contacts with the private sector, and in particular with the Radiology Department of the University Hospital of Leuven and the Department Head, Professor Dr. Guy Marchal, and through them with Agfa HealthCare. With their help, we manage to offer a higher health care service to all the population, in Kinshasa and beyond, including Congo-Brazzaville."

"AN IMPRESSIVE WORKFLOW EFFICIENCY GAIN"

The hospital's Imaging Department is the country's largest, and has 10 radiology rooms. However, with just four in working order and in dire need of modernization, the number of patients treated per month was limited to about 500. "With the Agfa CR 35-X digitizer, the monthly patient throughput has more than doubled in three months, with the same radiology examination infrastructure", Dr. Luyeye points out.

"The workflow efficiency gain is impressive. Before the introduction of Agfa's CR solution, a patient entered at 8 a.m., and in the best case couldn't leave until midday, just for a basic radiology exam. Just imagine: with the analog process, we had to dry the film in open air when the drying machine was out of service. When it rained, patients just had to wait even longer for their images to be available. Now, in less than 5 minutes, the exam is done. It takes only 30 minutes for a patient to come in, be examined and leave with a CD. Even for radiologists, the convenience is enormous: we finally can work at a reasonable speed in a very comfortable way." Dr. Luyeye also points out considerable improvement in the department's ecological footprint with the absence of chemical waste that has to be disposed of.

The most amazing part of the digital workflow is that it renders new life into the thread-bare examination room infrastructure, explains Dr. Luyeye: "Our rooms are old, and the equipment limited. For instance, it did not allow us to go beyond 50 kVp anymore, which impeded us from doing a backbone exam conveniently. With the CR technology, the IMPAX diagnostic display station still renders a diagnostic image even for cerebral studies."

SOLUTION

» CR 35-X digitizer and IMPAX MA3000 diagnostic display station, training and guidance by radiology staff of University Hospital Leuven.

INVESTING IN TECHNOLOGY CREATES OWNERSHIP

The availability of sophisticated CR equipment has created a new élan with the Imaging Department staff, not in the least because they all bear responsibility for the success of the effort. The equipment is purchased, and comes with the training and guidance of the team of Professor Guy Marchal of the Belgian UZ Leuven University Hospital's Radiology Department.

Still, Dr. Luyeye, herself a pupil of Professor Marchal, is not necessarily overjoyed. "If we didn't have Agfa HealthCare's CR solution in 2009, we might have had to close down the department. It was impossible to provide convenient healthcare in these circumstances. As it is, we have assumed our financial responsibility and found great partners in both Professor Marchal's and Agfa HealthCare's teams. We have acquired the equipment with a loan and we pay our installments five months in advance, because we have been able to generate income with the CR solution. In a nutshell, the radiology examination cost is now determined by the technology, with the cost of consumables practically eliminated. We now finance technology, which is here to stay."

The investment also brings a general feeling of responsibility and a sense of long-term commitment, says Dr. Luyeye. "Patients now accept they have to pay for our services, as we also have to pay for the equipment, even if their payment only covers part of the cost. Our staff knows they have to ensure the best care for the equipment to function optimally for quality results: close the doors of the

"We can now provide patients a CD with their images. To us, this is a great relief: in infrastructure, throughput time, workload. And we can provide better quality care."

DR. GETTY LUYEYE, Head of Imaging Department

examination room, keep the dust out, manage the air conditioning,... In reality we are extremely proud: we are the first public hospital in Congo to own this type of solution. That's a big step ahead, for the whole healthcare community in Kinshasa and Congo. We inspire the other hospitals, even private ones, to try and take the same step."

CR SOLUTION SETS A QUALITY BENCHMARK WITHIN HOSPITAL

Dr. Getty Luyeye and the Imaging Department staff have clearly set a benchmark, not in the least for other clinical departments in the hospital. "More and more referring doctors insist on having a CD with the patient's exam images on it. It's a matter of confidence: they rely on the digital image. To us, this is a great relief: in infrastructure, throughput time, workload. And we can provide better quality care. In the beginning, referring doctors in the hospital did not have a computer to look at images. With the help of the Belgian Leuven University and its alumni

EDUCATION AND TRAINING SUPPORTED BY THE RIGHT TECHNOLOGY SOLUTIONS

The introduction of the CR solution at Mama Yemo hospital is the initiative of the Medical Director of Mama Yemo, Dr. Diabeno Tombe, who advocated and authorised the purchase of the CR solution, and Dr. Getty Luyeye, herself a pupil of Professor Dr. Guy Marchal, head of the Radiology Department at University Hospital Leuven, Belgium. It was co-financed by LUMOS (Leuven University Medical Development Cooperation), the vehicle Leuven University founded for supporting development projects in the medical field. Prof. Marchal's long-standing relationship with Agfa HealthCare led him to look at Agfa as the technology solutions provider and the local industry partner for Mama Yemo hospital.

Beyond training radiologists from the Kinshasa Hospital in Leuven, Professor Marchal's team provides local support and guidance on a regular basis, including a series of symposia. "Our symposia aim at giving additional professional guidance to the radiological community in Congo," explains Professor Marchal. "A university program for radiology is key to long-term success there. We need to be able to install a train-the-trainer

organization, we provided a computer per department and now many doctors have their own laptop." •

DID YOU KNOW...

- » Congo is the world's largest producer of cobalt ore and a major producer of copper and industrial diamonds.
- » Total expenditure on health in % of the GDP of the Democratic Republic Congo is 2.1%
- » Congo is divided into 518 "zones de santé" (healthcare zones), usually with one hospital, resulting in a distance of up to 100 to 200 km to reach a hospital
- » Traumatology and gynecology are key drivers for radiology in a country with traffic conditions that have been labeled by US Government as: "dangerous because of aggressive driving practices and low driving standards" and with a female pregnancy-related death rate of 1/15.
- » Hôpital Provincial Général de Kinshasa, the largest public hospital in Democratic Republic Congo, has 2,000 beds.



"It is crucial to improve on the diagnostic quality with adequate and sustainable technology-based solutions."

PROFESSOR GUY MARCHAL (UZ Leuven University Hospital)

model, which would allow radiologists to instruct general physicians in the field and increase the diagnostic quality throughout the country. 60 of the 70 radiologists from Congo are within our reach in Kinshasa, so we can make a difference." •

News from Agfa HealthCare

Agfa HealthCare launches Surgical Procedure Sets (SPS) product group

The advent of transmittable diseases such as HIV, CJD and Hepatitis B has increased the need for better infection control. As a result, new standards and regulations are being enforced in the healthcare sector worldwide, with a strong emphasis on creating improved bacterial barriers, especially during surgery. With recent research showing that textile products have much lower barrier properties against infection – and, therefore, a low likelihood of conforming to European standards – the way forward is single-use gowns and drapes made from laminates and non-woven materials.

To meet this demand head-on, Agfa HealthCare has launched a new line of consumables: disposable drapes and gowns (also called surgical procedure sets) under a new brand name: SEPARIO. Agfa HealthCare's new consumables will be distributed via its extensive global logistical network, built on the distribution of medical film.

With a comprehensive range of SEPARIO drapes and gowns, specifically designed to provide practical protection for a hospital's patients and personnel,

healthcare facilities can be confident of fulfilling the strict hygiene requirements set out by hospitals and authorities, irrespective of the type of surgical procedure. In addition to universal sets, Agfa HealthCare also provides a range of

specialty drapes sets designed to make specific interventions easy to perform. SEPARIO drapes and gowns are packed in easy to identify procedure-specific sets and packaged to ensure a long and sterile shelf-life. •



SEPARIO – THE BENEFITS

- » Provides maximum protection for patients and staff
- » Comfortable and easy to use
- » No compromise, sterile environment
- » Fit for the most vigorous handling
- » Strong absorbency and containment of fluids
- » Easily identifiable and long shelf-life
- » Conforms to EN 13795

DX-S CR system recognized for advances in neonatal imaging

Agfa HealthCare's leading DX-S computed radiography (CR) system was recently recognized for significantly improving image quality while reducing radiation dose in neonatal radiography by Premier Healthcare alliance in the United States.

The DX-S uses groundbreaking technologies which help address some of neonatal radiography's most pressing challenges, such as minimizing radiation dosage and enhancing image detail, while delivering images directly to the point of care. The small size of the neonatal patient causes low radiographic contrast and makes details more difficult to visualize. Because the infants may often receive 30 to 40 exposures over the course of their treatment, using

the lowest possible radiation dose is extremely important.

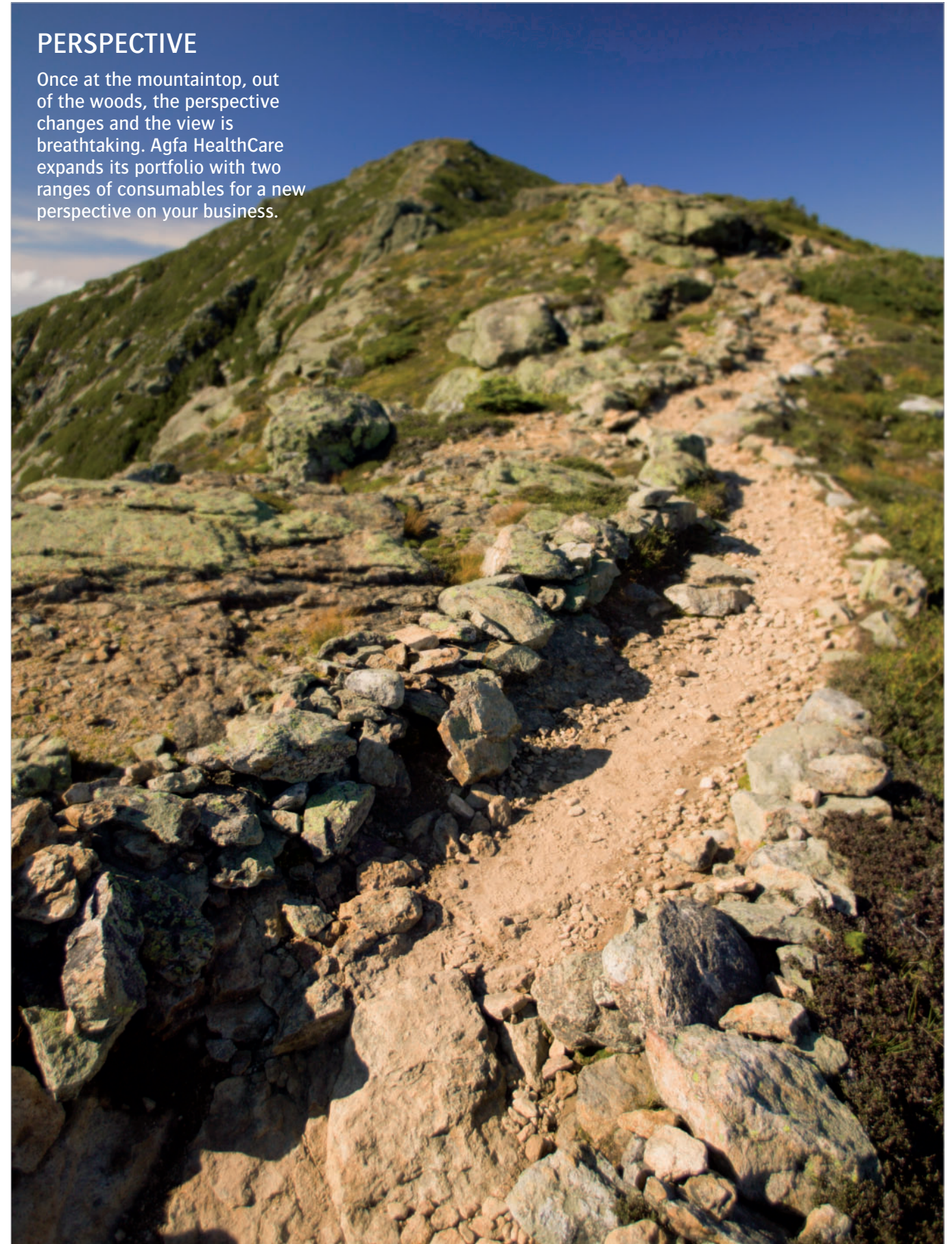
Currently available systems are limited in their ability to reduce dose and improve image quality because of the technology used. However, DX-S technology allows for lower radiation dose and still provides high image quality as well as faster patient throughput. The improved sensitivity of the DX-S can decrease the number of exposures due to repeats caused by inadequate exposure technique. In addition, the DX-S is a high throughput, compact, portable solution designed to deliver a full range of imaging exams directly to the point of care with minimal wait times. This makes the DX-S ideal in neonatal departments and other environments

where patient comfort, exam speed and imaging flexibility are of paramount importance, such as emergency, trauma, pediatric, and general radiology departments.

Held at Premier's 2009 Annual Breakthroughs Conference and Exhibition, the Innovation Celebration recognized advances in healthcare while highlighting healthcare industry suppliers committed to innovation and improving patient outcomes. The 26 products showcased were selected by a cross-functional team of Premier alliance members and staff of varying expertise, including clinical product planners, clinical field specialists, pharmacists, supply chain professionals, materials management and nurses. •

PERSPECTIVE

Once at the mountaintop, out of the woods, the perspective changes and the view is breathtaking. Agfa HealthCare expands its portfolio with two ranges of consumables for a new perspective on your business.



Radiology group Maine Image Santé implements technologically advanced DR imaging solution

New system offers excellent image quality and optimized processes to improve patient care and increase productivity

INTERVIEWEES Dr. Olivier Allain, Radiologist and Director • Laurence Touchard, Technologist

By introducing the DX-D 500* DR solution at the CMCM, Maine Image Santé (MIS) is one step closer to being all-digital, thus meeting the need for improving the delivery of care to its patients. In doing so, it's actively complying with a new French government health plan called 'Hospital, Patient, Health and Territory'.

PROVIDING EXCELLENT PATIENT CARE

A combination of three clinics, the Le Mans Medical and Surgical Center (CMCM) was established in 2006 and has strived to maintain three core values ever since: provide modern healthcare, respect the patient, and deliver a high level of patient care. With 450 beds, the center is the largest private medical, surgical and obstetric organization in France and makes every effort to maintain its technological innovation.

Today, MIS is providing a workable, proactive response to the government's recently introduced healthcare plan, thanks in part to its long-standing relationship with Agfa HealthCare and the company's new DR solution, the DX-D 500*.

"Over the years, Agfa HealthCare has become a trusted partner," explains Dr. Olivier Allain, radiologist and director of the organization. "The wide scope of our offerings allows us to gradually build a modern infrastructure not only to improve access to images and information, but also developing a paperless medical information system in order to meet the government's requirements."

In fact, MIS uses an IMPAX PACS network which allows all medical imaging data for the 12 sites to be shared. It chose to be the first French site to adopt the DX-D 500 x-ray room,



consisting of an x-ray table, wall stand, digital processing unit and workstation. This room is linked to a DX-S CR system, allowing radiologists to benefit from the DX-D 500's DR image quality for all examinations conducted in the room. The DX-D 500 and DX-S are controlled by the Agfa HealthCare NX workstation for optimized workflow, allowing the technologist to spend more time with patients. "In certain cases, however, with patients who cannot be moved, the CR system's flexibility is very beneficial in obtaining the needed images with minimal patient discomfort. Yet regardless of which platform we use, CR or DR, we will always be able to obtain the same high level of image quality," affirms Dr. Allain. "That's a key benefit of the Agfa HealthCare approach."

PRODUCTIVITY AND MEDICAL VISION IN THE LONG TERM

"All of our efforts focus on the patient," continues Dr. Allain. "The accuracy of the image produced by the DX-D 500 gives us better confidence

"Agfa HealthCare solutions help the most successful medical practices comply with increasingly stringent standards."

Dr. OLIVIER ALLAIN, Radiologist and Director

in our diagnostic ability. It also reduces exam time for the patient, which is a huge advantage in pediatric and emergency cases."

AGFA HEALTHCARE'S CONTRIBUTION

» The collaboration and trust between Maine Image Santé and Agfa HealthCare spans 14 years. By offering a suitable, competitive product for the imaging room at CMCM, the MIS team has not only improved the center's productivity, but also the further integration of imaging systems at departmental level.



SOLUTIONS

- » DX-D 500, dual-detector x-ray room.*
- » DX-S, CR solution with NIP detector.
- » CR85-X/CR35-X, CR systems.
- » NX, workstation.
- » DRYSTAR 5503 and DRYSTAR 5302, imagers.
- » IMPAX, shared PACS solution.

DID YOU KNOW...

- » With the DX-D 500, digital images are displayed within one second of exposure.
- » The DX-D 500 delivers almost real-time previews of images and very fast cycle times.

Technologists also benefit because they receive rapid results. Displayed within one second, the image can be used immediately and any follow-up treatment can be organized quickly.

"We value the great flexibility the workstation offers and the speed at which we can access images," says technologist Laurence Touchard. "The confidence it provides in making decisions is greatly enhanced by the quality and speed of processing," explains Dr. Allain. "It is a challenging job, and each improvement enhances

workforce cohesion and staff satisfaction."

The potential for dose reduction from the DX-D 500 solution also fulfilled one of the selection criteria of the MIS. "This technology is helping us achieve our objective, which is to utilize the most successful medical practices that comply with stringent standards. By reducing the number of exposures using a system that applies optimized doses, we are significantly contributing to reducing patient x-ray exposure," concludes Dr. Olivier Allain. •

"We value the great flexibility the workstation offers and the speed at which we can access images."

LAURENCE TOUCHARD, Technologist

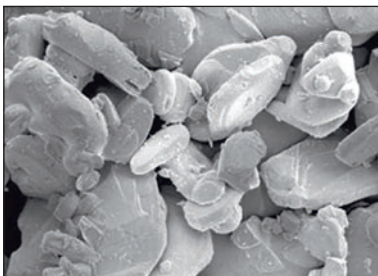


Who is offering needle-based image quality in both CR and DR?

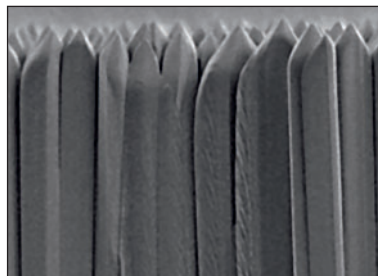
We R

Enjoy the highest possible image quality in both CR and DR

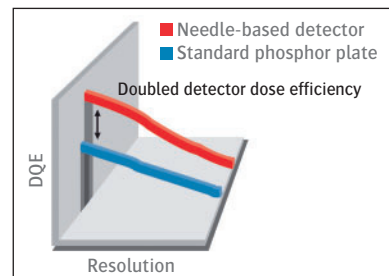
Radiography has many applications. But one constant remains: the demand for superb image quality. Agfa HealthCare offers needle-based technology in both CR and DR. This ensures the highest quality images with outstanding consistency and lower dose potential. It is part of a commitment to provide the world's best digital imaging across broad needs, from desktop systems to integrated radiography rooms. Only Agfa HealthCare includes the NX user station for an intuitive experience across CR and DR. And MUSICA², body part independent software that optimizes processing parameters for exceptional images across general radiography, neonatal or pediatrics. Transforming to digital radiography? We'll take you there.



■ Standard CR



■ Needle-based detector



Performance comparison

www.agfahealthcare.com