



WHITE PAPER

An Enterprise-wide Approach to Cardiology

A consolidated solution that addresses
your cardiac department's challenges

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Executive Summary

Healthcare in general and clinical care delivery in particular are embracing a significant shift in how organizations align themselves, focusing on care outcomes, and putting in place a holistic, patient-centric care delivery approach that is value driven. The episodic encounter, volume-based approach of the past is officially in the past.

This transformational shift in the healthcare delivery model has been underway for some time with the emergence of single vendor electronic health records (EHRs) that bring together disparate applications under a single integrated platform. Ubiquitous sharing of patient information is rightfully perceived as critical to quality patient care delivery.

In our past, volume-based environment, images remained in their separate silos of multispecialty care areas. To address the imaging workflow challenges of today a comprehensive medical imaging approach is required. In order to reduce these inefficiencies, imaging solutions must follow the footsteps of EHR, transforming into a comprehensive multi-departmental enterprise imaging platform, a singular platform that provides common enterprise services (interfacing, authentication, archiving, visualization, etc.) as well as providing departmental imaging acquisition and management services from cardiology to radiology and other departments - wherever images inform the diagnostic decision process. By incorporating multi-specialty images on a consolidated enterprise imaging platform, healthcare organizations can bring clinical relevance to medical data and associated images.

1 Features of a Value-Based, Consolidated Cardiac Care Model

An interoperable ecosystem of clinical exchange, with tools for business intelligence, on a consolidated platform helps care providers deliver coordinated care, monitor health outcomes of their patients, improve operational efficiencies, and control costs.

A consolidated enterprise imaging approach allows physicians and care providers at all stages of the care continuum to have unified access to patients' medical reports and clinically relevant imaging data that enrich the patient's visual healthcare infographic.

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VALUE-BASED CARE INVOLVES COORDINATION AMONG CARE PROVIDERS AND PARTICIPANTS TO PURSUE THE DELIVERY OF HIGH QUALITY AND HIGH VALUE CARE WHILE REDUCING THE NEED FOR POTENTIALLY UNNECESSARY MEDICAL SERVICES. IT IS AN INTEGRATED STRATEGY THAT BREAKS SILOS AND INTRODUCES WORKFLOW EFFICIENCIES. THIS APPROACH REQUIRES CARE TEAMS NOT ONLY TO COMMUNICATE AND COLLABORATE EFFICIENTLY, BUT ALSO INVOLVES PATIENTS AND PAYERS SO THAT THE BENEFITS OF A HOLISTIC ENTERPRISE WIDE VALUE-BASED CARE DELIVERY MODEL ARE REALIZED.

Imaging is prolific and more imaging data is being created today across the care continuum. However, in most cases there is no clinical relevance or efficient access to this imaging data, which in certain cases leads to re-exposure of patients to potentially unnecessary medical tests. This ultimately gives relevance to building a unified governance model for an organization's clinical imaging needs. Images are also being acquired at point of care, in ambulatory and home settings, and with mobile devices that aid further not only to enable a clinician to view a visual healthcare infographic of a patient, but also enable patient education and participation.

2 The Significance of Enterprise Imaging in the Delivery of Value-Based Cardiac Care

CARDIAC CARE HAS BEEN CONSIDERED MORE COMPLEX THAN OTHER SPECIALTIES WHEN IT COMES TO DEVELOPING AN INTEGRATED AND AN INTEROPERABLE ECOSYSTEM OF CLINICAL EXCHANGE. IT HAS WITNESSED EXPONENTIAL GROWTH IN THE LAST 15 YEARS, AND HISTORICALLY DEPLOYED DEPARTMENTAL SOLUTIONS FOR SPECIFIC AREAS BASED ON INVASIVE AND NON-INVASIVE CARDIAC CARE DELIVERY.

How do you deliver Value-Based Care and provide access to clinically relevant cardiology data that is spread across the care continuum?

The development of these departmental solutions has resulted in the creation of silos of cardiology images, related reports, and ECG data. In some cases, silos were not only cross-departmental, but were also created within the same department as part of acquiring specialized solutions (for example, ECG Management, Echocardiography, Invasive Cardiology; Cath Lab, and EP). There have been disparate attempts to get cardiology specific data and images to other users via third-party integrations and interfaces, but these attempts have been unsuccessful in enabling enterprise wide access with clinically relevant images to help deliver value-based care.



3 Establish a Consolidated Enterprise Imaging Strategy

THE AFFORDABLE CARE ACT SETS FORTH MECHANISMS SO THAT CLINICIANS CAN PROVIDE HIGH QUALITY, EVIDENCE-BASED CARE THAT IS ALSO COST SAVING. AND, **VALUE-BASED CARE** IS ALL ABOUT BUILDING A HEALTH CARE MANAGEMENT STRATEGY THAT FOCUSES ON COSTS AND THE QUALITY OF CARE. AND MOST IMPORTANTLY, THE GOAL IS TO CREATE AN INTEROPERABLE ECOSYSTEM OF CLINICAL EXCHANGE WITHIN AN ORGANIZATION BY REMOVING BARRIERS AND ENABLING:

- Enhanced collaboration and care standardization
- Meaningful use of medical imaging and structured data from across and throughout the care continuum
- Efficient image exchange without heavy cost of data migrations
- Improvement of the patient experience

This not only highlights the need for developing a **consolidated and interoperable Enterprise Imaging approach**, but also calls for establishing a holistic purchasing and vendor selection strategy. Purchasing a cardiology PACS, ECG Management solution, vendor neutral archive (VNA), image transfer tools, and universal viewer separately, perhaps from different vendors, is one approach. By definition, this approach creates multiple challenges, including duplicate caches, too many databases, too many interfaces, differences in vendor vision and roadmap, dispersed management and monitoring, desynchronized upgrades, variance in disaster recovery and business continuity approaches, excessive labor to manage multiple vendors, and future disruption due to vendor mergers and acquisitions.

In order to achieve the patient care expected not only today, but in the future, the need arises for a **single converged platform strategy** which provides multi-departmental informatics, PACS and imaging services, VNA, image exchange, mobile display and acquisition, physician collaboration, patient engagement, foreign study management, and regional health services, on a **single converged platform**, without the detriments of multi-vendor “Frankenstein” environments.

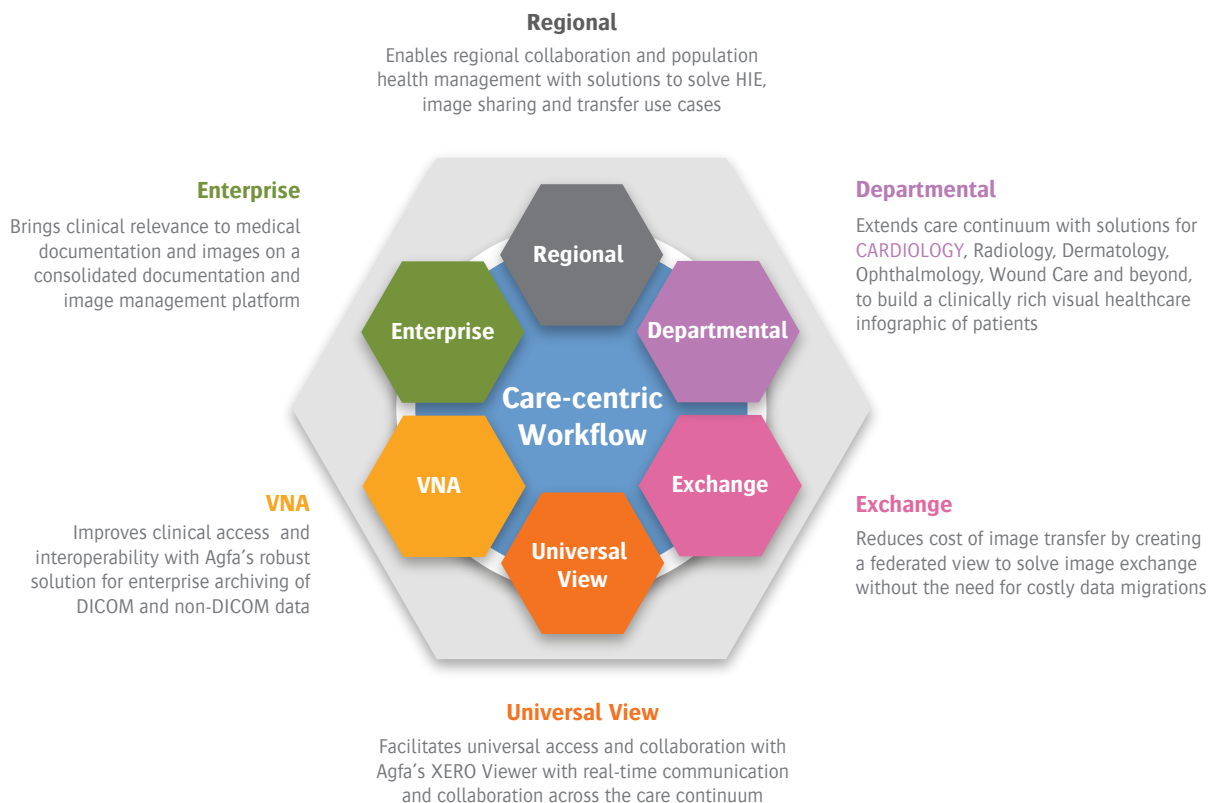


4 Agfa HealthCare's Enterprise Imaging for Cardiology Solution

HEALTHCARE ORGANIZATIONS ACROSS THE GLOBE ARE UNDER PRESSURE TO DELIVER COST EFFECTIVE AND HIGH QUALITY CARE. WHILE THIS UNDERSTANDING HAS LED TO A METEORIC RISE IN EHR SYSTEMS, THERE IS STILL ONE SIGNIFICANT ROADBLOCK TO ULTIMATE CLINICAL PRODUCTIVITY: MOST OF THE EHRS AVAILABLE ON THE MARKET TODAY DO NOT COMPLEMENT THE TEXTUAL DATA WITH CLINICALLY RELEVANT MEDICAL IMAGES.

Agfa HealthCare offers a care-centric workflow platform which is standards based, improves interoperability and enables a comprehensive patient health record across departments within a single facility or between multiple facilities. Hospital groups, Integrated Delivery Networks (IDNs), or public and private health information exchanges (HIEs) can develop and efficiently share unified patient records containing both images and textual information. We at Agfa HealthCare have built a platform that goes beyond archiving: we enable clinical relevance and enrich medical data.

Agfa HealthCare Enterprise Imaging: A Care-centric Consolidated Platform



5 Realizing the Value

CLINICAL PROCESS OF CARE - HOW DOES AGFA HEALTHCARE'S SOLUTION ENABLE IMPROVEMENT IN THE PROCESS OF CLINICAL CARE?

- Allows improved continuity of care between caregivers
- Improves utility, and information sharing between care providers
- Enables potential for reduction of imaging duplication based on access to prior exams
- Standardizes practices related to exam ordering, demographic creation, exam association, image capture, image storage, and image access, which leads directly to improved processes. Allows staff to consistently capture exams and relate them to the patient, which increases efficiency.
- Decreases response time to patient requests

PATIENT EXPERIENCE - HOW DOES AGFA HEALTHCARE'S SOLUTION ENABLE IMPROVEMENT OF THE PATIENT EXPERIENCE?

- Fewer repeat exams reduce patient stress, time, pressure, and cost
- Access to longitudinal record can help potentially reduce dose by avoiding repeat exams
- Engagement improves the ability of patients to take ownership of their care. Access to imaging information within a Patient Portal provides compliance-enabling support with improved understanding due to access to imaging information within a Patient Portal
- Improves collaboration between caregivers and patients with increased content
- Bedside consults with images/cardiology reports
- Delays related to patient discharge can be reduced with faster access to images/reports

DELIVERY OF CARE - HOW DOES AGFA HEALTHCARE'S SOLUTION HELP IMPROVE THE DELIVERY OF CARE?

- Ability to capture exams remotely and provide imaging services in the community can help reduce re-admission
- Improves access to clinically relevant data for accreditation, research and analytical reports
- Increases number of patients tracked with enriched clinical data
- Improves patient engagement with mobile capture tools
- Improves patient awareness and compliance for chronic disease management and follow up

EFFICIENCY - HOW DOES AGFA HEALTHCARE'S SOLUTION HELPS WITH EFFICIENCY GAINS?

- Improved access to exams can speed up time to discharge or to lower cost service
- Access to longitudinal care will facilitate more community based care and potentially lower re-admission
- Improves cross-departmental workflows and elimination of duplicate processes
- Greater efficiency promotes reduction in Emergency Department (ED) wait times
- Mobile solutions enable data capture and upload in a meaningful clinical context
- Less time worrying about administrative tasks and more time for patient interaction

From a clinical perspective, **cardiac surgeons** can access Agfa HealthCare's Enterprise Imaging for Cardiology solution as it will allow them to enhance their preparation process. **Physicians** can access it to streamline their collaborations and peer-review, especially in emergency medical situations. **Ambulatory care** teams can capture cardiac data outside their hospitals and send the data to care teams in advance of patient's arrival, so care delivery can begin upon arrival to the ED. **Clinical care teams** can improve and normalize the data collection and distribution process, thereby improving workflow efficiencies and the quality of care delivery.

This enterprise-wide strategy allows the cardiologists to become more efficient and enables meaningful collaboration and exchange of clinically rich cardiac data when they share it with their referring physicians, partner organizations or payers for reimbursements and accreditation to international registries (i.e., ICAEL, ICAVL, ICANL, ACC STS, etc.)

Besides the need to streamline workflow, cardiologists are already realizing the need for collaboration and communication outside their departmental silos. Their role in shaping the healthcare industry, moving beyond interpretation and becoming an enabler of the Value-Based holistic care delivery model will be imperative. By leveraging a consolidated Enterprise Imaging for Cardiology strategy to collaborate with other providers, cardiologists can positively impact the patient experience and quality of care.

Why Agfa HealthCare?

FORWARD THINKING HEALTHCARE ORGANIZATIONS ARE MOVING AHEAD AND INVESTING IN TECHNOLOGIES THAT ENRICH THEIR MEDICAL DOCUMENTATION WITH CLINICALLY RELEVANT IMAGING DATA.

We, the specialists at Agfa HealthCare, have been in the imaging industry for over 100 years and have been in the forefront of medical imaging since 1947. Our deep collective understanding of clinical workflows, combined with our breadth of information technology experience, sets us apart. Our customers rely on our commitment to quality patient care to deliver interoperable, forward-thinking strategies for systems of all sizes. One out of two hospitals worldwide use our medical imaging systems. With a consolidated Enterprise Imaging solution, now is the time to invest in introducing a Value-Based Care-Centric model to your operations.

To discuss how Agfa HealthCare can bring value to your care organization, contact us today and let's develop the right strategic plan to enrich your health system.

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