

CWZ Nijmegen goes beyond PACS vendor lock-in with new Vendor Neutral Archive

‘Leave no image behind’ approach extends PACS-independent view of EHR across all clinical departments

INTERVIEWEE Pascal van Nispen, Information Advisor



“With Agfa HealthCare’s Vendor Neutral Archive solution we rise above the PACS vendor lock-in constraints and can start sharing data with other hospitals to coordinate care.”

PASCAL VAN NISPEN, Information Advisor

A VNA CONCEPT TO STOP BUILD-UP OF IMAGING SILOS

With a strong board of directors at its helm, CWZ has taken its future firmly in hand. The hospital has been recognized by the Dutch government as a top-clinical hospital in the fields of neurosurgery, PCI (Percutaneous Coronary Intervention) and ICD (Implantable Cardioverter Defibrillator) surgery, and it also has a strong reputation as a pioneer in several medical fields, such as childhood diabetes, large vein surgery and laparoscopy interventions. The fourth medical training institute of the country, CWZ has a continuous influx of young and ambitious clinicians and care professionals that share this dedication.

Almost 380,000 day clinic visits and over 31,000 inpatients per year across its six sites mean that the hospital must organize its workflows effectively. Pascal van Nispen, Information Advisor, conducted an inventory of the existing image flows. “We found that our imaging flows were diverse, to say the least. Some departments printed their own images and attached them in paper to a departmental paper patient file, some saved images as compressed jpegs, some stored them on offline CDs. All of these ‘imaging silos’ resulted in a lack of centralized management, corrupt

Moving beyond the limits of PACS vendor lock-in and taking the lead in the development of a regional Electronic Health Record (EHR) were the drivers for the Dutch Canisius-Wilhelmina Hospital in its implementation of Agfa HealthCare’s Vendor Neutral Archive IMPAX Data Center (IDC). As an enterprise or regional imaging management solution, IDC extends the EHR to include all medical images and related information to the point-of-care inside and outside of the hospital.

With University Medical Center St Radboud nearby, Canisius-Wilhelmina Hospital (CWZ) is both competing and collaborating with one of The Netherlands’ foremost healthcare centers. Sharing patient data is part of this relationship and CWZ decided to take the lead in developing a regional EHR. When Agfa HealthCare’s Vendor Neutral Archive IDC becomes available to the CWZ healthcare network, a major milestone will have been reached.

SOLUTIONS

- » IMPAX Data Center VNA with XERO Technology Viewer
- » Long-term Managed Services Agreement
- » Serve as General Contractor within multi-vendor agreement

AGFA HEALTHCARE'S CONTRIBUTION

- » Meeting the aim of the customer to move beyond vendor-based PACS and take the lead in regional EHR concept
- » Comprehensive Managed Services concept that provides peace of mind to IT and clinical users
- » Ability to take the lead in a multi-vendor environment

files, and incomplete patient records. Our findings led our board to propose a centralized approach based on a Vendor Neutral Archive (VNA)."

Pascal van Nispen: "We decided to ask Agfa HealthCare to take the lead as our general contractor, coordinating with our local PACS vendor, and provide a VNA solution to six departments in the first phase: gastroenterology, ophthalmology, urology, pneumology, the OR and the medical photographer," says Pascal van Nispen. "Agfa HealthCare had already provided its IMPAX PACS solution to radiology, cardiology and nuclear medicine, and our local hospital-wide PACS vendor joined in, so each department had digital access in one way or another to patient images and data. We just needed to centralize all imaging data, be able to validate it, and share it seamlessly with all of our care professionals."

Agfa HealthCare's role was to provide a back-end solution that would enable all images to be centrally stored, and be HL7, DICOM, IHE and XDS/XDS-I Framework compliant. The IMPAX



Data Center is central to creating a longitudinal imaging-enabled medical record and is designed to work with multi-vendor solutions. "We wanted to steer away from a vendor lock-in," says Pascal van Nispen, "and we were looking for the lowest integration cost possible. Agfa HealthCare supports the hardware infrastructure according to the service level specifications in our Managed Services Agreement, and proactively determines when to replace or upgrade the solution to improve uptime and functionality.

A LOW-COST AND USER-FRIENDLY WAY TO VIEW ALL IMAGES IN THE EHR

In line with the hospital's aim to play a leading role in the development of a regional Electronic Health Record, using the Agfa HealthCare XERO Technology Viewer as the unique way to access images coming from the VNA is a major asset. This enterprise medical image viewer allows clinicians to access imaging information securely and independent of location, on a variety of web-enabled devices, improving the delivery of patient care through point-of-care access to patient data.

"The XERO Technology Viewer is an important asset to us, as it doesn't require

the installation of client software. It uses existing infrastructure and connects on standard browsers, such as Microsoft Internet Explorer, Google Chrome, or Mozilla Firefox," says van Nispen. "Our clinical users will access medical images from any location and image source across the hospital, straight from the patient record. It is a matter of time before we extend our VNA with the XERO Technology Viewer to outside referring doctors, remote sites and collaborating hospitals, completely secure."

This will fully release the power of the VNA concept to the care network and also to the patients, continues van Nispen. Instead of paper prints, CDs or even "snail mail" transfer of images, examination images and results will be able to be accessed by referring doctors or tertiary care clinicians almost immediately. "This will result in fewer retakes, fewer superfluous examinations and a more streamlined patient flow between care providers. With XERO integrated in the EHR, we can complete our VNA proof-of-concept and start expanding its use outside our campus. We will then be able to really rise above the PACS vendor lock-in constraints and start sharing imaging data with other hospitals to coordinate care." •



DID YOU KNOW...

- » Nijmegen is the oldest town in The Netherlands as we know it today. It was 2,000 years old in 2005.
- » The most famous story, known in literature throughout Europe and the Middle East, is that of Mariken van Nieumeghen, an inhabitant of Nijmegen. It is a late medieval Dutch text from the early 16th century, where Mariken spends seven years with the devil, after which she is miraculously released having confessed her sins with remorse to Saint Mary. The morale of the story is that no matter how sinful one is, there is always salvation through Saint Mary.