

HCM in the Stiftung Mathias-Spital Rheine

IHE-compliant, patient focused, future proof

When looking to the future, only one thing is certain: Everything changes and nothing stays the same. When planning hospital IT infrastructure, this uncertainty must always be taken into account. A classical paradox? Not with a strategy aligned with standards. Such a strategy will outlive short-term trends and even equip the system for the slow awakening of the slumbering giant known as telematics infrastructure. The Stiftung Mathias-Spital Rheine went down this route and opted for the JiveX Healthcare Content Management (HCM) from VISUS. Even during the implementation phase the decision proved to be particularly savvy.

“When we signed the contract with VISUS in spring 2018, we could not envisage that we would also replace the PACS during the project. We did not really believe that the telematics infrastructure with electronic patient records would provide a true alternative to the IHE files that we have used to date. And not even in our wildest dreams did we consider a pandemic that would completely upend both hospital operations and everyday life,” explained Dirk Hoffmann, IT Manager at the Stiftung Mathias-Spital in Rheine. Asked about the consequences of these not insignificant events on the course of the project, he remains calm: “As good as none. We started a few weeks later than planned. And users had to do without a live on site training session. That was pretty much it though.”

Finally, all medical data at a glance

But back to our starting point: the challenge for physicians to be able to access all important medical information for a patient and a case quickly and in full. Prior to the introduction of the HCM, part of this information was in the CIS, another

part was in the PACS, distributed over innumerable subsystems for ultrasound images, ECGs, or lung function tests, for example. This jumble of sources of information and the associated risk of overlooking a result or unnecessarily performing a duplicate examination should be brought to an end.



Dirk Hoffmann

IT manager at the Stiftung Mathias-Spital in Rheine

Over the course of a year, a project team established specifically for this purpose examined a total of seven systems identified as a “Vendor Neutral Archive” before selecting the solution from VISUS from Bochum. “We were impressed by a number of things. Of course, partly the strong medical focus. Since the late 1990s we had been using a document management system that will be retained

for administrative data. That is why it was important for us to not implement an additional general VNA but rather a medical archive that included both the option to access data in parallel using a viewer and the ability to easily exchanging information. Manufacturer neutrality was an additional focus, without which it would not be possible to connect the subsystems so comprehensively. And it was ultimately of importance to us to remain independent and not to place our data into a prison from which we could never retrieve it. JiveX Healthcare Content Management is based on standards such as DICOM and profiles such as IHE. We can access the raw data at any time and theoretically have the option of switching to other IHE-based structures. This is not what we plan to do but it does give us security of investment.”

Simple retrieval from the CIS

The HCM is now in operation and subsystems are connected. In practice, it means that from the CIS the user can right click on a patient to jump to the HCM where all medical data relating to this patient and case can be viewed. This process was deliberately selected because the



Mathias-Stiftung Rheine (Photo: Mathias-Spital)

The foundation is made up of four hospitals and operates two commercial premises in Rheine, a site in Ibbenbüren, and an orthopedic clinic in Bad Bentheim. A rehabilitation clinic in Mettingen is also part of the foundation.

access authorizations are granted by the CIS and not by the HCM. The data enters the HCM through interfaces to the subsystems—work that ate up the most time in the project because each provider had to be contacted individually. Dirk Hoffmann: “This is a Sisyphean task. But it is definitely worth it. Diligently connecting the subsystems to the HCM makes our work today much easier because the data exchange is now reliably automated. If a physician has completed the diagnosis of an ultrasound image in the specific system, the diagnosis and the images automatically migrate to the HCM where they are available for the ward physicians.”

The radiological imaging data can be easily and quickly accessed. Since the switch to JiveX Enterprise PACS, they are embedded in a sort of container in the HCM. ECGs, which were previously ex-

amined in JiveX ECG Advanced, the lung function tests and other data, such as patient charts from the specific system for the ICU department, are also automatically transferred.

IHE-based record plan

However, the Stiftung Mathias-Spital Rheine has not used a more or less paperless workflow since the introduction of the JiveX Healthcare Content Management system. Actual paper records have never been used throughout Dirk Hoffmann’s career—already a good 15 years. The hospital has always operated on the principle of immediately scanning paper-based information and then destroying it.

Since the deployment of the HCM combined with functions such as the PDF Print Gateway or the photo app, digitalization processes could be further

simplified because fewer work steps are necessary and data are converted to standard formats.

And about that standard: When asked which rules are used to structure the records in the HCM, those responsible do not have to think long. On the recommendation from VISUS, the project team opted for the record plan from IHE. “This was also because we had purchased the technology for creating an IHE register along with the HCM so that we can link IHE-based external record structures. In the meantime, setting up the EPRs via the telematics infrastructure had advanced to a point where we can now identify how we can most cleverly connect to existing technologies. Once again I am convinced that JiveX provided good service in this regard,” concluded the IT manager.