Healthcare Content Management in radprax

The pivot point for documents

Entirely paperless - aspirational, but not wholly possible. Even in otherwise digitized practices. That's because even they have to give their patients a paper copy of all completed forms to take with them as required by the German law governing patient rights. The radprax Group has now found a solution that lives up to this challenge and still allows the practice to go paperless internally: using the digital pen from Diagramm Halbach and JiveX Healthcare Content Management.

Sometimes modern technology can still amaze even experienced IT staff like Dr. Alexander Klemm. You can genuinely sense the excitement in Klemm, part of the company management at radprax Gesellschaft für Medizinische Versorgungszentren mbH, about the new form processes: "The digital pen technology from Diagramm Halbach, in combination with the VISUS Healthcare Content Management system, solves a previously unsatisfactory part of our document management, in a truly fascinating way. At last, we can close the gap between our digital infrastructure and paper-based forms."

A lot of work, a lot of paper for the bin

His enthusiasm is understandable if you consider the relevance of the problem: Various, and a varying volume of, paper forms arise per patient, which all need to be filled out and signed: a docket, a privacy statement, an information sheet for contrast medium examinations, consent forms and so on. These documents then need to be recorded, assigned to the case and the patient, and archived. At the same time, the patient needs to be given the documents or a copy of them when leaving the practice, to take home.

With a total of twelve sites, the massive expense in terms of work and material for this process is self-evident. But Dr. Klemm has performed a rough calculation for it, arriving at a round figure of a million DIN-A4 sheets of paper per year, along with the annual working time

Dr. Alexander Klemm

of a full-time employee on patient reception. Up until now, the employees there would be required to copy all the forms first, in order to provide them for the patient to take away, and after the practice had closed would then manually assign the forms to the patient/case in the RIS.

The smart pen and the intelligent software

By using the digital pen, this way of working is now fundamentally changing. Instead of issuing the patient with a sheet of paper that is mass-printed, the patient reception selects the document required as a PDF and prints it onto paper with a special pixel grid. The form is already clearly assigned to the patient. Using the integrated camera, the digital pen now records all the information that the patient enters on the form, orienting itself to the pixel grid. Afterwards, the data is transferred to a docking station by the pen - this being via an HL7 interface into HCM, directly linked to the patient and case. The completed form is then available for viewing as a PDF.

In the case of the docket, the process works by the docket accompanying the patient through the various stops during his visit to the practice, and only the pen is returned. The data is read in immediately and available digitally via JiveX HCM at the next stop for the patient. During the entire patient visit, the docket is therefore filled in step by step, and by docking the pen at each stop the patient documents are always up-to-date. "We can only map this process in this way in JiveX HCM, as it is only in this system that several versions of one document
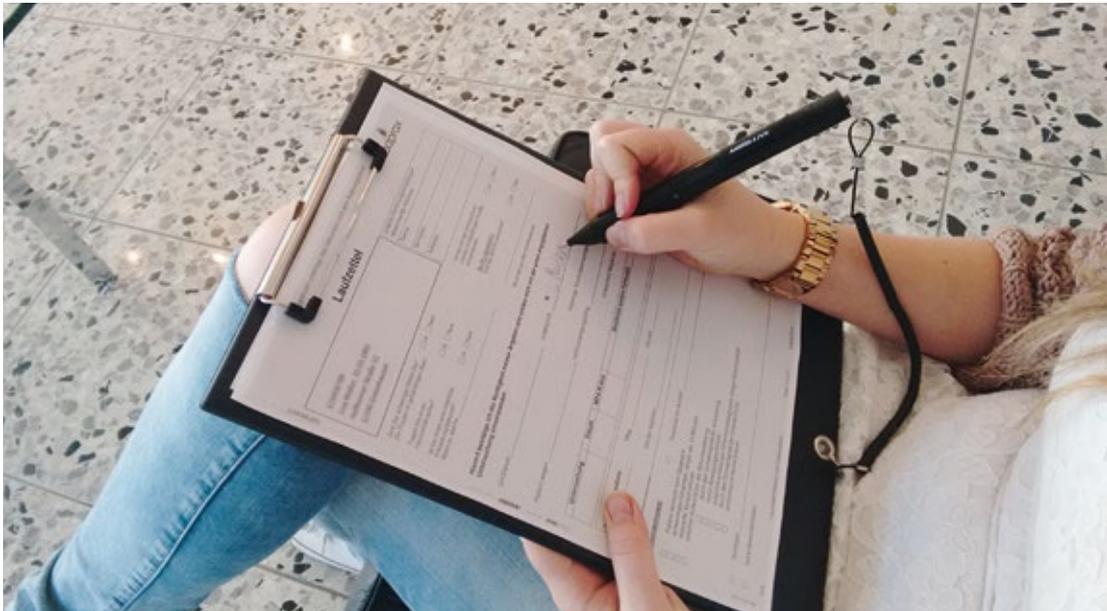
can be handled intelligently. In PACS, for instance, we would have five PDFs after five stops, and would have to search for the most current one, using the time-stamp. By contrast, HiveX HCM automatically archives older documents and only shows the latest version," explains Klemm. Another advantage is that the PDFs of the forms are directly categorized in HCM, with the corresponding information being transferred at the same time by the digital pen to JiveX.

At the end of the process, the patient simply takes his paper forms away with him, while the digital copy remains in the practice. So there is no need for subsequent copying and scanning, and the error rate in assigning forms to a patient is reduced. "Of course, people forget to dock the pen immediately from time to time. But in such cases, we receive an error list and have the opportunity of adding the data manually," says Klemm.

Collective document storage

Invisible for the patient and also for the user, but massively important for managing the data - by integrating the form documents into the JiveX HCM database, all documents are now finally in one place. This is because radprax has already been archiving documents that the patient brings with him and that are scanned on-site in HCM for some time. Alexander Klemm: "However, the JiveX HCM has not been visible for the user up to now. This is because the system is so deeply integrated into the RIS that these documents are still being called up as previously using the RIS. It is only with the changeover to the digital pen that we are also rolling out the multi-modal

viewer, so that the forms can be viewed digitally everywhere."

That brings benefits for medics who are evaluating material remotely from home or from another site. And, naturally, it brings benefits for the billing department, who can view all relevant documents, pre-filtered, via the HCM viewer. Incidentally: the radprax radiological data continues to be stored in JiveX Enterprise PACS, which is in use at all twelve sites. Alexander Klemm does not, however, rule out the possibility of the two systems being combined in future via a multi-site query, so that all data can potentially be viewed via all viewers: "That is the great thing about JiveX HCM: you can start small and build towards the bigger whole, bit by bit, depending on what is required and what is sensible."

Simply smart: The digital pen by Diagramm Hallbach and the JiveX HCM optimize processes related to paper-based forms