

An upper-class RIS for Professionals

“Your Radiologists in Karlsruhe”, short iRad, unites the competence of 12 radiologists and nuclear medicine physicians of two imaging centers and offers its patients the best possible radiological diagnostic investigation and therapy in Karlsruhe and its surroundings. Optimal scheduling, quick availability of special knowledge and an optimised use of resources both economically and medically are also the result of a successful partnership with the provider of the RADIOLOGY INFORMATION SYSTEM (RIS) medavis. For the past 17 years, iRad and medavis have been working closely together and have adapted the RIS to the changing medical requirements.

Practical Experience shapes and generates Demands

iRad especially highly appreciates the partnership and quality. Already in 1998, the radiologists worked with the medavis RIS. As a day one customer, the physicians have accompanied the development of the system for almost two decades. Dr. Friedburg initiated the introduction of medavis RIS and remembers: “When we founded the imaging center in 1990, we introduced another RIS. The former provider could not adjust the system according to the requirements of the German Health Insurance Association KV on time. Therefore we looked around for a new system. In the imaging center, the wish for a quicker, more functional RIS that precisely models the processes of the imaging center and meets the requirements had existed for a while.” In this way, the three founders of medavis met a demanding customer with eight years RIS experience right at the start. As Dr. Friedburg found a provider with medavis whose office is right around the corner, the collaboration started with an exceptionally intensive exchange. “The excellent connection has endured over the years,” exclaims Dr. Friedburg satisfactory.

Process-oriented: Now and Then

The system introduced in 1998 should transfer patient details to the modalities to avoid double entries. It also should support the workflow by sending the patient details to the worklist of the findings provider as soon as the technician carried out the examination. The RIS automatically creates the billing and also checks the rules. If the service entry is e.g. not plausible, as services that rule each other out have been entered, the responsible staff receives a notification in order to make sure that the correct invoice is sent.

This is still the same today, but the processes have been further optimised in many points: “Everything has to be done quickly. This was true before as well, but to-

day we work with solutions that are really well-suited to each other,” Dr. Friedburg explains. „The voice recognition is a good example of this. Today, I dictate my reports directly into the system and it is available to all employees quickly. Luckily, we left the detour with cassettes behind us and have been using digital dictation since 1998. After getting to know four different speech recognition solutions, the fully-integrated version from medavis is the first that works as I envisaged it to a quantum leap from my point of view.

Across Sites and fully integrated

Since the function with the radiology in Karlsruhe Durlach in 2012, the physicians of iRad work with a central RIS at both sites. The RIS module MULTIPLE SITES allows you to work with central worklists. You can always ask your colleagues for a second opinion or to stand in, as the patient record can be accessed at both sites. A central database ensures that patient details, reports and pictures are available across sites. “We already introduced a digital picture archive in 1998. PACS makes all pictures available in less than one minute, independent of how many studies the patient has. As we immediately scan external reports and import external images with reference to date and time and store it in the respective record, we have a complete overview of the patient history independent of the site,” explains Dr. Friedburg. Both sites benefit from the central CALL CENTER for scheduling patients. The employees work in a separate room in order not to impede the registration at the front desk and can work without interruptions. For calling the patient and scheduling an appointment, they use the CALL IDENTIFICATION in RIS. If the patient has already been to the imaging center, the number will be recognised and the record will open automatically. If a new patient calls, you can create a new record and already document the details relevant for the examination. This later saves time at the registration desk. “With medavis, we have reached a new efficiency for

scheduling," Dr. Friedburg says pleased. "Our call center employees can prioritise incoming calls according to the displayed information and take them depending on the urgency. Patient registration has become more demanding. The reason for this is both that the treatments have become more complex and the scarce documentation of the referrers." The information provided during scheduling are entered in the RIS scheduler and RIS recognises if a patient already exists in the system. Changes of the appointment later on are quickly realised. The digital scheduler enables a structured planning of patient visits; depending on the symptoms and the planned diagnostic investigation, important factors such as claustrophobia or obesity are already clarified during scheduling to reserve the correct modality for the necessary amount of time. "As we consequently scan external reports and clarifications, they are digitally available at each RIS workstation - we are living the dream of a paperless office. Additionally, referrers can access reports and images via the REFERRER PORTAL. We also document the patient's consent for the procedure in RIS," Dr. Friedburg summarises.



system that fulfills all of my wishes. And if we make an error, the medavis support helps us in a simple and uncomplicated way," Dr. Friedburg further explains. In addition, an IT employee of iRad trained by medavis, who knows the system very well, takes care that the system runs reliably.

It is clearly company policy at medavis to invite both assistant employees and the head physicians to system trainings regularly. An offer Dr. Friedburg gladly accepts time and again: "The longer you work with an IT system, the more routine-blinded you become. That's why medavis had the clever idea that medavis employees have a look at how we work with RIS in our imaging center and analyse it in addition to standard software trainings. I am curious how we can improve how we work with the system and optimise our workflows with the results that we shall shortly receive." This "Checkup" is an offer by medavis especially for long-time users to change routine habits that stand in the way of optimally using the system in its current version.

"For me it is important that our system offers a sensible structure that we can adjust to the working habits of our physicians. This increases acceptance," Dr. Friedburg explains the technical circumstances. According to Dr. Friedburg, the future will bring further interesting digital mile stones, e.g. the integration of computer-assisted diagnosis. If we compare images with an image database in the future with techniques of pattern recognition and analyse them by defined criteria, in the future RIS could make suggestions and support the decisions of physicians.

Developed by RIS Experts

In the course of the merger with the imaging center in Durlach in 2012, it was important, that medavis RIS would be used as central system at both sites. "Our colleagues found it difficult at first, just as with every software change. The complaints quickly became less and the employees are now very satisfied with their RIS. With medavis, we use an upper-class system and a Mercedes is never exactly cheap. Only professional tools are profitable for professional use. I have a

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