In today’s consumerised healthcare market, patient choice has become a major driver for hospitals to differentiate themselves and work to improve the quality of their patient care. This shift is increasingly bringing the radiology department – often the clinician’s primary source of data for diagnosis and treatment – into the spotlight. And as that happens, the RADIOLOGY INFORMATION SYSTEM (RIS) is becoming a vital strategic investment in the hospital’s constant quest for the quicker and more efficient delivery of patient care.

At Acibadem Sistina in Skopje, one of Macedonia’s leading clinical hospitals has put the medavis RIS at the heart of its strategy to deliver the prompt service and efficient, accurate diagnosis demanded by patients in a globalised market. Today, as part of the largest hospital network in South East Europe, it has been instrumental in placing Macedonia on the world healthcare map, with a reputation for using the latest technologies and protocols to deliver the highest standards of treatment.

Acibadem Sistina has been a medavis customer since opening its doors in 2010, selecting the vendor as one of the leading companies in the RIS field. In 2016, it consolidated its investment with an upgrade to meet the growing demand for information availability and mobility across the hospital. The system is currently used by four doctors in the Radiology Department and two Nuclear Medicine specialists. As CEO Jordan Kamchev (Photo on the right) explains, it has been instrumental in the hospital’s drive to provide patients with quicker and timelier services.

“We perform 25-30,000 examinations each year in our Department of Radiology, and a further 4-5,000 screenings in the Department of Nuclear Medicine,” he says. “We have been using this system since we opened and our figures strongly suggest that the support it provides greatly influences patients choosing our hospital, because they receive a fast, high-quality service when it comes to radiology and nuclear medicine exams.”

Thanks to the system, patients receive their screening results on the same day of their admission. For clinicians, the fully automated and digitised working process allows more examinations to take place in a shorter period of time without decreasing the quality of service – helping to reduce the cycle between scheduling an appointment, getting scan results, diagnosis and treatment.

Acibadem Sistina Hospital was the first completely digitised hospital in the country, in terms of radiology and...
nuclear medicine examinations, from the moment of patient registration through to them being discharged.

The medavis RIS is fully integrated with Cerebral Plus, the Hospital Information System (HIS). When an appointment is made, it immediately retrieves patient data from the HIS.

Its workflow functionality means it can be adapted to the processes of the Departments of Radiology and Nuclear Medicine, and connects with all the modalities used by staff and clinicians.

Its reporting facilities give the hospital a real-time overview of the departments’ performance, including the types of examination being conducted, the number of examinations, and the devices being used for screening. This information helps it to monitor activity per doctor, and make decisions about technology upgrades and future investment.

medavis RIS also has a direct integration with the hospital’s Picture Archiving and Communication System (PACS). The digitisation and archiving of images in both departments enables the quick retrieval of data and instant comparison with previous results – a significant advantage in accurate diagnosis.

According to Mr Kamchev, the RIS is effectively a bridge between the HIS, the PACS and the modalities used in the Radiology and Nuclear Medicine Department.

"In all terms, the medavis RIS is our partner, helping us to provide a quick and high quality of service while shortening the duration of the examination," says Mr Kamchev. For example, with the support of the RIS system we can perform twice as many exams per day as before. And besides the speed, the RIS workflow supports reporting, enabling the fast flow of information and digitisation of the overall patient treatment process.”

Mobile access has enabled a new level of functionality: if the doctor is not physically present in the hospital, they can still work and have access to all the data they need, simply by connecting to the internet.

"When we upgraded the system in 2016, the enhancements to search and browsing functionality resulted in greater accessibility of our scans by mobile devices within the hospital premises and beyond," says Mr Kamchev. "Therefore, more doctors can be involved in the diagnostics at any time and place, if necessary. This process is completely safe because it is zero-footprint technology; nothing is stored as data on the mobile device.”

The hospital assesses ROI from investment in technology such as the medavis RIS on perceived improvements in patient satisfaction and loyalty, and the rate at which it attracts new patients through its reputation for quality.

"So far, the experience of investing in the medavis RIS has shown that it saves us both time and money," says Mr Kamchev. As far as time is concerned, the patient doesn’t need to wait for admission more than once, because all the data in the RIS is retrieved from the HIS during their first admission to the department. Without the RIS support we would be able to examine a much smaller number of patients and conduct 30-40% fewer examinations.”

In practical terms, the quality of support provided by medavis through its regional partner, Zagreb-based medavis d.o.o, has played an essential role in the project’s long-term success.

"There have been virtually no problems," says Mr Kamchev. "Everything is solved effectively and promptly. Whenever an adjustment to the system is needed, or a situation does occur, our request is addressed within one or two hours. This means we can rely on continuous workflow thanks to the medavis RIS. We enjoy excellent communication with medavis d.o.o. They always carry out their tasks professionally and within the predetermined timeframe.”