

Sponsored • RFID technology

Modern authentication solutions for clinics

A system for user authentication and access management is key for simple, as well as transparent, processes in everyday hospital life. It thus contributes to an optimal working environment for staff and the best treatment conditions for patients. Because of this role, such a system can help clinics stand out from the competition.

Whether accessing electronic patient records or gaining access to sensitive areas: a modern, uni-

form system for user authentication and access control based on radio frequency identification (RFID) ensures that permissions are exclusively granted for authorized personnel. Not only does this simplify compliance with legal requirements, but it also ensures smooth processes. An RFID card, which staff members often already carry as an employee ID, is all that is needed to quickly gain access and entry to predefined areas. Authorizations can be managed centrally by the hospital IT with

little effort. This, along with the simple authentication processes for staff, increases the efficiency of clinics and helps to reduce costs. Similarly, RFID cards may be issued to patients, to facilitate cafeteria payments, access to entertainment programs and more, in an easy and convenient way.

Sustainable and secure

Universal readers are at the heart of modern access control systems. While hospital staff authenticate with cards, for example, patients can use their smartphones. To ensure that confidential information is protected, a reader that supports advanced security protocols and encryption is also required. Furthermore, the reader's design must reflect the demands of a modern clinical environment, with an appealing aesthetic and the possibility for hygienic cleaning of the housing.

Those in charge for the successful implementation of an access control system should consider further important points beyond the

choice of reader. For example, it is necessary to include the complete system in the hospital's security concepts in advance. Further crucial points are in the flexibility and future viability of the system. It should be compatible with existing solutions, allow adaptations to changing requirements and be able to handle future technologies. Still, the system must be as user-friendly as possible to manage authorizations. Given the complexity of these requirements, seeking advice from specialized solution providers is recommended in order to avoid bad investments. For example, Elatec GmbH, one of the world's leading providers of user authentication and identification solutions, offers comprehensive consulting.

Disinfection safely regulated

The example of the American company UV-Concepts shows how safety, flexibility and appearance requirements can be successfully met. The company specializes in innovative, non-contact disinfection solutions, including a chamber that uses ultraviolet UV-C waves to

kill germs on large items such as wheelchairs. To ensure disinfection performance and avoid health hazards from UV-C rays, access to the equipment must be limited to trained personnel. To achieve this, UV-Concepts relies on Elatec's TWN4 Palon Compact Panel solution. The reader features a durable, high-quality panel display and is compatible with up to 60 transponder technologies. Certified for sale in up to 110 countries worldwide, it offers exceptional flexibility. For example, the high level of compatibility benefits hospital associations that use a range of different technologies at their sites. In addition, activating new card technologies and updating firmware by remote configuration are easily possible. The reader is integrated into the UV chamber's digital tagging system and backend software, allowing for tracking of the time and trigger for each disinfection cycle. In this way, the reader contributes significantly to the correct application of the disinfection solution and protects patients and staff alike. ■



The access to sensitive areas is only possible with a modern, uniform system for user authentication.

Sponsored • Fast-tracking research results into clinical practises

Clinical evidence workflow solution

The path from evidence-based research to clinical implementation is straightforward in theory but taxing in practice: Research groups must be coordinated, relevant published material identified, classified, and prepared, to shape findings into a comprehensive SOP for clinical use. To facilitate this complex process, Wolters Kluwer developed a new suite of applications, called Ovid Synthesis. It streamlines research workflows and the implementation of quality improvement measures into clinical practice. We spoke with Vikram Savkar, Senior Vice President & General Manager, Medicine Segment, Health Learning, Research & Practice, about the new solution, its development, and unexpected benefits for clinical education and onboarding.

'We want to facilitate the process of continuous quality improvement, which is highly relevant for any

hospital,' he says. 'Applying the best practice is essential for better clinical outcomes for patients and also benefits financial performance. But it can also be very tedious and time-consuming. With Ovid Synthesis, we have developed a workflow tool that helps make that process efficient, successful, collaborative and more accurate.'

Coordination of research groups is an enormous challenge, especially in bigger institutions: teams are scattered and communication about ongoing projects often happens in parallel over emails, offline documents and spreadsheets. 'This is inefficient and makes it hard to find the relevant evidence,' Savkar says. 'Findings are challenging to share across teams in other departments or hospitals. As a result, much time is wasted on research that has already been done before.' To solve this, Ovid Synthesis offers a cloud-based space to conduct research activities, provides access

to all relevant published evidence and ensures that all teams involved have visibility into current projects in a comprehensive dashboard. 'The system also allows teams to track previous unsuccessful research projects to avoid duplication of efforts.'

AI classification streamlines search for sources

To accumulate relevant sources for research projects, the Synthesis solution is built upon the Ovid platform, which, according to Savkar, is the largest database of medical literature in the world. However, for teams searching for specific content, this wealth of information can be challenging to process: 'Even the most accomplished and earnest researcher can't possibly read all the articles that are published in a particular field,' he says. 'This is where our solution comes in – technology can help to make the selection and evaluation more efficient.'

To achieve this, Ovid Synthesis uses artificial intelligence (AI) to classify publications by their relevance. This is determined by scientific criteria, such as study design, sample size, or frequency of external citations. 'If this were done manually, this classification alone may take up to an entire year, but our tools can reduce the process to a period of weeks.'

Not only does the system help pulling the relevant papers, but it also helps users extract their key insights and generates citation lists. 'This process ensures that the template for any clinical improvement plan will be created in a rigorous,

evidence-based way,' Savkar stresses. Originally intended as a tool to bring the latest evidence into clinical practice, the suite has also proven to be helpful in other, unexpected ways, Savkar reports: 'We didn't build Ovid Synthesis as an educational or training tool. But the hospital systems we work with find that this is a very useful way to help residents and new doctors quickly assimilate to evidence-based practice culture in those hospitals. Because it is such a structured tool and it templatises the process of evidence-based practice, it helps teach them what that looks like.'

The process-oriented approach is also beneficial in creating greater job satisfaction for doctors and nurses, as user feedback shows: 'They feel a sense of agency, that they can participate in a process to help improve clinical outcomes of their hospital. This is very meaningful for doctors and nurses, so it's another by-product that we are thrilled about.'

Feedback loops fuel further development

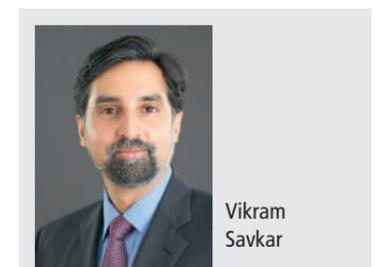
Ovid Synthesis launched in January 2022, after a two-year development phase. 'We have worked closely with selected hospitals to make sure that all the innovation we put into this suite is driven by customer needs. We engaged many of our large hospital customers to help us design this so that it genuinely met their needs.' Since the solution is cloud-based, it can be implemented into any pre-existing clinical IT infrastructure, says Savkar, adding that 'cybersecurity is a top-level issue for us, so we implement the

best practices to protect our customer's data.'

Feedback loops are also to be a driver of the regular expansions to the suite, which are scheduled for release in six-month intervals; for example, a new institutional dashboard allowing users to identify and build on previously successful projects and automated integration with external research platforms. 'So far, we have been very successful with this product; many major hospital systems adopted it on the first day it launched. The reason for this success is that we're choosing to take a steady customer-based path to building out the full solution over time.' (WB) ■



Only trained personnel can use the disinfection chambers.



Vikram Savkar is the Senior Vice President and General Manager, Medicine Segment of the Health Learning, Research & Practice business at Wolters Kluwer. Previously, Mr Savkar served as General Manager for several businesses in the Legal & Regulatory division before joining the Health Division in late 2019. Prior to joining the company, he held senior positions at Nature Publishing Group and Pearson Education, and has earned degrees in Physics and Classics from Harvard University.