

Mr. Schultz Takes Control

Nobody likes to be sick, but if your health does take a plunge, it is good to know you are in competent hands. But there will be more issues to consider in the future: Our healthcare system is facing radical changes.

■ Mr. Schultz, age 50, works in customer support for a global company and spends a lot of his time on the road. Stressful jobs are commonplace today, but to complicate matters, Mr. Schultz suffers from diabetes. While diabetes is not uncommon for a man his age, how he keeps his blood sugar levels in check is.

A small sensor implanted underneath Mr. Schultz's skin keeps a constant watch over his blood sugar and transmits the readings to an electronic patient file. His family doctor has constant access to his blood sugar levels and can trigger any necessary actions from afar. In an emergency, his doctor could instruct another doctor in Mr. Schultz's vicinity to administer medication or admit his patient to a local hospital.

But the real innovation is that all of the doctors and hospitals dealing with Mr. Schultz have access to his complete patient file and his latest test results. Mr. Schultz can decide where

and when he wants to seek treatment. Providing this information to any doctor who deals with Mr. Schultz contributes greatly to preventing misdiagnoses, overdosage, or redundant treatments. Ultimately, it gives Mr. Schultz the power to make decisions about his own treatment process.

While such a scenario is still just a model, it is far from utopian. The combination of medicine and IT offers great benefits for patients. Turning around our approach to healthcare promises to be an even bigger change than technical innovations: By placing the patients at the center of their personal treatment network – making them informed consumers – they benefit from the interdisciplinary collaboration of their health service providers.

Doctors, pharmacists, and health insurance companies will all contribute to a service tailored to each patient – a service that is highly efficient and draws on the latest healthcare methods. “That model best describes our

approach,” says Harald Pitz, head of the Healthcare, Higher Education & Research division at SAP. “We are setting up the healthcare industry for the future and making sustainable improvements by structuring it around the patient.”

Inefficiency drives costs

The financial burden on both state-run and private healthcare systems worldwide is immense. Progress in the medical field has increased life expectancy and improved treatment of the chronically ill, but it is largely based on modern, expensive technology. And those are not the only costs: “Besides devices and medication, inefficiency and lack of transparency are the biggest cost drivers,” says Harald Deutsch, managing director and head of the healthcare division at Accenture.

“Our healthcare system is a sluggish structure characterized by redundancy and a poor flow of information. Where other industries have streamlined their



business models and processes over the years to make them simpler and cheaper, the healthcare field has optimized the technology but not the way its services are delivered.”

Quality and profitability of providers varies greatly in both inpatient and outpatient treatment. Deutsch notes that the pressure to reduce costs has already had an effect, with model projects for integrated healthcare coming to life. “Unfortunately, this collaboration is still patchy,” he adds. “But we are seeing that IT is making a strong contribution to standardizing and streamlining business processes.”

These improvements, however, will be sustained in the long term only if changing patterns in patients’ behavior are taken into account. As chronic illnesses such as allergies continue to increase, more patients are opting for outpatient treatment or services provided in their homes, instead of inpatient care. “Patients have more control over how and where they receive treatment,” says Pitz. They have acquired greater consumer savvy, especially since insurance premiums have risen while patients are still expected to pay excesses for certain services – sometimes even the entire cost of treatments.

“Patients look around for where they can get the same quality for less money, both for medication and care,” says Pitz. “They are not passive recipients of services anymore, trusting

whatever doctors tell them. They have their own voices and make their own decisions.”

“Patient centricity” and collaboration

To make a decision, however, you need to have the right information, and you need to be sure that everyone else involved in your case also does. Mr. Schultz not only needs to know about his state of health, but he and his regular doctor need to be sure that his medical details and insurance information are available to doctors on hand during emergency.

“Doctors, hospitals, pharmacies, and insurance companies all have to exchange information to ensure the best interest of the patient,” says Pitz. “Nevertheless, it is crucial that patients retain the ultimate control over their data. Only the patient may decide how this most personal of information can be distributed and used.”

With the necessary safeguards in place, any combination of healthcare partners could join forces to provide the best possible treatment and, equally important, preventative care. For Mr. Schultz, the ideal objective is to curtail health problems before they demand major treatment. If all parties in the collaborative global healthcare community share the right information quickly enough, they can avoid complications. “The patient has to be at the center – patient centricity is the key to

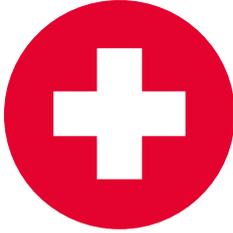
realigning the healthcare system and bringing preventative measures to the forefront,” says Pitz.

Integrated healthcare community

“We have to realign the system. We need to change from treating diseases to promoting health,” says Werner Leodolter, head of IT at the Austrian healthcare association KAGes and e-health coordinator of the regional Austrian health platform. “Electronic patient files and health cards are promising approaches for enabling the exchange of information, but many measures are still in their infancy,” he notes.

KAGes began at its own doorstep by connecting its 24 locations. Based on the SAP NetWeaver technology platform, SAP and non-SAP applications interact to ensure that all KAGes healthcare institutions and departments can access patients’ history. “Integrated healthcare only works when all doctors’ offices, hospitals, and systems work together smoothly. There’s a lot left to do, and interoperability is essential,” says Leodolter.

Volker Lowitsch, IT director at the University Clinic of Aachen in Germany, highlights the same aspect. “Doctors and carers use IT to call up a patient’s data at the touch of a button.” The current IT systems, however, still focus on settlement, he notes. “We need process-oriented applications that map business models and treatment



procedures, and that requires a service-oriented architecture (SOA). Software vendors should apply enterprise SOA in healthcare applications.”

For Lowitsch, harmonizing systems is just as important as developing new Web services: “We want doctors to be able to access the data from their own practices using online portals. That way, patients can go to the doctor of their choosing without having to run through the whole diagnosis procedure again.”

National network

The Swiss coordinated ambulance service (KSD) has also found uses for networking different institutions systems: The emergency information and dispatching system IES-KSD, developed by the Swiss Ministry of Defense, Security, and Sports and operated for both civilian and military purposes in conjunction with the Swiss military, provides real-time information about the

capacity of emergency rooms in any hospital in Switzerland. As soon as an emergency is reported, the emergency response center can call up the available local, regional, or national resources and plan its response accordingly. With minimal effort, this system can be expanded to include neighboring countries. “Our aim is to provide the best possible ambulance and emergency service to the Swiss people and to be prepared in case of a catastrophe,” says Rudolf Junker, head of KSD. “If worst comes to worst, we know exactly which hospitals handle which emergency types and how much capacity they have. Patients therefore don’t have to go through life-threatening detours to get to the right hospital for their needs. IES genuinely saves lives.”

The IT partners in the project, SAP, intelligence Switzerland, and couniq consulting, are tasked with connecting the data of state-run and civilian orga-

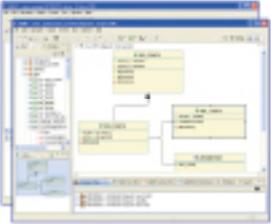
nizations on municipal, regional, state, and national levels. The aim is to continuously enhance the system, and some major objectives are already in sight: At the European soccer championship in 2008, IES is to handle resource and personnel management for police, rescue, and care organizations and provide the patient routing system (PLS-PPE). “We are focusing on improving and accelerating the collaboration of the different parties, such as the care group of the Swiss railway,” says Junker.

As an avid fan of his native Austria’s soccer team, Mr. Schultz will be pleased to know that he’ll be in safe hands when he heads over the border to Switzerland for a few games. Now if only someone would invent a system to rescue his team’s chances of qualifying for the second round.

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