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Think lean before loading up on IT to improve workflow in hospitals

BY JERRY ZEIDENBERG

ORLANDO, FLA. – Dr. Rueben Devlin, the former CEO of Humber River Hospital in Toronto, led the drive to create what his team calls North America's first digital hospital. The gleam-

ing new building, which opened in 2015, makes use of the latest technologies – all designed to improve workflow and enhance medical outcomes.

But Dr. Devlin, now a consultant, is the first to advise hospitals to think lean – you should initially work out the best way of

getting tasks done, and then add the appropriate technologies. “The tendency in hospitals is to add processes and technologies,” he said. “But you should really be trying to simplify things.”

That's what will really improve workflow and productivity, he said.

He added that technological planning should go hand-in-hand with lean methodologies. “Don't just put technologies in at the front end,” he said. Instead, determine the smartest way of getting work done, and if they're needed, then implement the right technologies.

Dr. Devlin was a speaker at the recent Healthcare Information and Management Systems Society (HIMSS) in Orlando, Fla.

One example of the planning Humber River did before opening the new hospital was to look at the impact a bigger facility would have on nurses.

A study discovered that nurses were already walking 5.4 kilometres in a 12-hour shift. The bigger building would require them to walk 11.6 kilometres – over double the distance.

A solution was found in the use of automated guided vehicles (AGVs), essentially motorized platforms with wheels and computerized brains, which could deliver supplies, navigate hallways and even open and close elevator doors.

The AGVs are able to deliver 75 percent of the supplies in the hospital, saving nurses a lot of steps.

The hospital found another smart solution in the use of Ascom wireless smartphones, which have simplified hospital communications and have also enhanced patient safety. Working with Toronto-based ThoughtWire, which provided an intelligent platform, Humber River Hospital deployed the phones so that clinicians get alerts and calls on the smart devices.

That has eliminated much of the noisy paging and alerting that used to go on in the hospital, and makes it much faster and easier to send messages to the appropriate clinician. “The phones have eliminated overhead paging, which is loud and disturbs the patients,” said Dr. Devlin.

Moreover, it is a more efficient way of contacting clinicians.

“What might have taken five or six phone calls in the past can be done now with one message on the smartphone,” commented Holger Cordes, CEO of Ascom.

Dr. Devlin noted the system is capable of assembling teams when Code Blues are initiated – the alarms that calls together care-givers in the event of severe cardiac or pulmonary incident. However, he noted that most of the alerts in a hospital are of a non-urgent nature – such as lab or MRI results. Still, he said, it is important to get them to clinicians in a timely manner.

He observed that clinicians are very pleased with the new communication system. “Physician satisfaction is up,” he said.

Creating a digital hospital, of course, is no small task. Dr. Devlin estimated there are some 17,000 devices at Humber River that are being integrated.

But he emphasized that anyone creating an intelligent hospital must first do a lot of work at the beginning to smooth out and improve the workings of the facility. “You don't want to digitize bad processes,” he said.

For its part, Ascom at HIMSS announced Unite Context, an integrated communication and collaboration platform that enables hospitals to bridge the information gap between back-end systems, EHRs, and the front-end workflow.

