



Q&A with Anne M. Bugge, President and CEO of Sonitor Technologies

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Real Time Location Systems (RTLS) have been a valuable emerging technology in healthcare for several years now. Conventionally, it has been utilized for asset/equipment tracking — but today RTLS is playing an increasingly important role in improving hospital workflow.

HCB News talked with Anne M. Bugge, president and CEO of Sonitor Technologies, Inc. about these workflow applications and the promise they hold for more efficient care delivery.

Healthcare Business News: When people think about RTLS, asset tracking comes to mind first. Recently we've been hearing more about workflow, though. Is this a growing application for the technology?

Anne M. Bugge: Very much so. We're working with more and more institutions who are using our technology to manage workflow across the continuum of care.

HCB News: Can you give us instances where it is being used?

AMB: One of the first important workflow use cases was in an outpatient setting at Sanford Moorhead Clinic, which has approximately 50,000 square feet of clinical space. The clinic offers internal medicine, family medicine, pediatrics, ob/gyn and other specialties.

Sanford engaged us when the Moorhead Clinic was a brand new facility. Their objective from the outset was to use RTLS to improve patient flow and staff workflow, so we worked collaboratively with the architects to design RTLS into their plans. Knowing where a patient is in real time helps the clinic anticipate and effectively plan work, and helps the administration schedule staff efficiently.

The driving goal of more effective flow was to improve the patient experience. The clinic's leadership felt that by reducing wait times they could increase the amount of time a caregiver spends with a patient, ultimately improving the quality of the visit. Toward that end, RTLS helps caregivers better plan for workload variations that happen

routinely in the clinic—people coming in early, people coming in late, missed appointments, and so forth.

HCB News: So they were able to fine-tune workflow based on RTLS. Can you share any scenarios to give us a flavor of that fine-tuning?

AMB: Sure. Based on insights that RTLS analytics enable, if the clinic saves one minute of a nurse's time per patient per day over the course of one year, it could translate into the necessary time for an LPN to add several hundred more return patient visits. Sanford's Moorhead Clinic actually conducted a study measuring LPN time and they identified 1000 hours of additional available staff time per year.

HCB News: That's impressive. We wanted to touch upon RTLS workflow improvements at the department level. We hear most about the ER and OR departments.

AMB: Those are two areas where RTLS is having a significant impact. As with ambulatory clinics, patient wait times in the ER are problematic and are a big factor in patient satisfaction and quality. Reducing wait times has a direct, positive impact on staff workflow and staffing levels. Workflow is also improved significantly by automating communications through RTLS and eliminating certain manual processes that can slow down workflow. This includes administrative tasks such as filling out paperwork and clocking patients in and out so that throughput is enhanced. In addition, by deploying RTLS, patients and staff are visible in real time.

HCB News: We've been hearing about throughput in the OR as well. Has RTLS played a role in those gains?

AMB: Again, patient flow and workflow go hand in hand in the OR—each depends on the other. Institutions can really boost safety and improve efficiency using RTLS, which can lead to higher volumes of surgical procedures. With greater visibility into the status of operating rooms—based on movement of patients, staff, and equipment—more efficient scheduling can

be realized, enabling quick turnover in rooms for sequential cases.

RTLS can provide much better visibility to hospital staff and even a patient's loved ones by tracking patient progress through their perioperative journey and key clinical milestones. Software that works with our systems can, for instance, identify when a room is available for cleaning, when a potential delay is occurring, or when a piece of equipment has been moved to the wrong location. A lot of positive automation and process improvement has been realized in the OR. This of course has major implications clinically, as well as for a hospital's bottom line as it opens up significant topline revenue growth.

HCB News: We have read a bit about a lesser-known application of RTLS in the radiology department. How is it being used there?

AMB: You're right that it isn't talked about as much, but really RTLS can be a huge help in any department. Radiology has been somewhat slow to implement RTLS but there are strong indications that it can have a significant clinical impact, especially in treating stroke patients rapidly.

A time-motion study was recently conducted regarding acute stroke workflow and presented at the American College of Radiology. This RTLS pilot involved a multidisciplinary team including radiologist, neurologists, operations excellence professionals, and pharmacists. They found that RTLS had the potential to enhance workflow visualization, add value to QI project and decrease treatment times for acute stroke patients—which can improve outcomes and has the potential to save lives. More and more, departments like radiology, who have less experience with RTLS, are looking into its contribution in enhancing their workflows for clinical and operational improvements.