



White Paper

Renown Case Study

After a smooth PeriGen implementation, Renown is doubling down on Quality Care for Mothers and Babies

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At a Glance

Renown Health

- The largest locally governed, not-for-profit healthcare network in northern Nevada
- 946 licensed beds throughout the health system
- More than 4,000 babies delivered at Renown Regional Medical Center in 2017

The Need

- Continue to build on the excellent quality of care given to mothers and babies
- Gain a longer, more comprehensive view of trends across a mother's entire labor and delivery than previously available in fetal monitoring strips in 10-minute intervals
- Concurrently implement with Epic EHR upgrades to enable higher quality obstetrics documentation
- Give obstetric nurses tools to communicate more effectively with physicians to drive safer, faster decisions

The Solution

- PeriWatch Surveillance™ and PeriWatch Vigilance® seamlessly integrated with Epic Stork

The Results

- Artificial Intelligence-driven system helps support the decision-making process to enhance patient safety for mothers and babies
- Newer nurses gain confidence in their decisions faster, communicate more effectively with physicians
- Bi-directional data flow with Epic EHR improves workflows while ensuring most current data is available everywhere
- Nurses able to complete documentation faster and more accurately, enabling them to spend more time on patient care

Providing the highest level of care to mothers and babies has always been a point of pride for Renown Health, the largest locally governed, not-for-profit healthcare network based in Reno, Nevada. In 2017, with more than 4,000 babies delivered at Renown Regional Medical Center, staff and executives recognized there is always a way to take quality levels higher.

Such was the case when Natalie Nicholson, DNP, MBA, RN, CENP, Director of nursing for Renown Women's Health, came across an article in a nursing magazine describing the analytics and other innovations PeriGen® was incorporating into its PeriWatch® product line. Intrigued, Nicholson sought out additional information from PeriGen, including case studies, white papers, and product literature.



Seeing the Full Story of Labor

One of the key factors that intrigued Nicholson was the ability to gain a more comprehensive view of labor progress than possible with the current system.

"When I first started as an L&D nurse, in the days before EFM, we used to lay out the strips of paper and look across a couple of hours to see if there were subtle trends happening," Nicholson says. "Our old EFM system would only show 5- to 10-minute segments. I saw with PeriWatch, our nurses would be able to view as much as 4 hours at a time onscreen to search for issues such as late deceleration, and highlight 30-minute segments if they wanted to dig deeper. Spotting trends over time is critical to averting issues, and PeriWatch made it much easier."

The artificial intelligence (AI) clinical-decision support built into PeriWatch was another major selling point. Based on PeriGen's industry-leading research into the causes of

"The more I looked into it, the more I realized how much additional, advanced functionality was available in PeriWatch versus our current electronic fetal monitoring (EFM) solution. It became obvious that PeriWatch could greatly enhance our ability to keep mothers and babies safer."

*-Natalie Nicholson,
Director of Nursing for
Renown Health*

"It is still up to the nurses to interpret the data and speak with physicians, but it was clear the alerts would give our nurses a common language to use with our physicians," Nicholson says. "Rather than just saying 'I have a bad baby' right now, the technology would offer them the ability to speak more specifically about the issues they were seeing."

maternal and fetal issues, PeriWatch uses AI to evaluate the data and call out recommendations for consideration by the clinical team.

She adds: "Post-implementation we're finding it gives our newer nurses confidence in themselves as well as more credibility when they call a physician's attention to a problem they're seeing. But even our most seasoned nurses like having the validation that what they're thinking agrees with what PeriWatch is suggesting."

Smooth Implementation

After doing her due diligence reviewing several EFM solutions, Nicholson came to the conclusion that PeriWatch was by far the best choice and made her recommendation to the Renown Board of Directors. Once they saw how it could be seamlessly incorporated into the already-planned Epic refresh, the go-ahead was given.

The first step was building the implementation team, which ultimately included 45 members. Renown assigned an IT project manager, who worked with Nicholson on the clinical side, and PeriGen brought in several of its most experienced experts. It couldn't have gone better, Nicholson says.

"I was here for the previous EFM implementation and that was a hard

road," she says. "This one was so much easier. We had a great project manager on our side who made sure we were on-point every week, and the PeriGen team was incredibly easy to work with. We originally planned three days for the implementation, but it ended up only taking 14 hours before every OB bed was converted to PeriWatch."

Nicholson was also impressed with PeriGen's level of expertise and responsiveness.

"When we had questions, the team would respond quickly if they knew the answer," she states. "If they didn't know, they would find the answer and get back to us right away. We were implementing Epic Stork at the same time, and everyone knows how good the Epic team is. I'd say the PeriGen implementation was every bit as good."

The great customer service didn't end once Renown reached the go-live date in September 2018. Nicholson says if they ran into any glitches, even minor ones such as a 10-second delay when nurses went to review a strip, PeriGen took immediate action to resolve them.

"Unlike so many technology vendors today, they didn't say 'it must be operator error' or 'that's good enough,'" she says. "They jumped in and fixed any issues. It shows how much they care about their product, and how dedicated they are to ensuring proper performance rather than just making a sale."

Epic Connect with Barton Health



Another unique aspect about the implementation was the extension of PeriWatch to Barton Health, a not-for-profit community health system with 68 licensed beds in its hospital in South Lake Tahoe. Using Epic Connect, Barton Health is able to take advantage of all the advanced features and functionality of PeriWatch without having to manage their own platform.

Bi-directional interface with Stork

Another point in PeriGen's favor was that it fully integrates with the Epic EHR. Renown was planning an Epic refresh, so it made sense to look into an EFM that could simplify documentation and workflows for nurses.

Bidirectional Integration



PeriWatch enables bidirectional integration with Epic, which means anything updated in PeriWatch automatically gets entered into Epic HER and vice-versa. That was not only important from a technical perspective, but also to speed up adoption.

"Some of our nurses prefer to enter data in PeriWatch," Nicholson says. "Others are more comfortable with the Epic interface, so they will use that instead. The beauty is it doesn't matter which one is actually used to enter the information. It appears natively in both in Achieving Success real time."

Achieving Success

Nicholson says the performance of PeriWatch so far has been outstanding. While it is too soon for clinical outcomes metrics, its presence is already being felt throughout both Renown Health and Barton Health in a number of ways. Among the most important are:

Increasing face time with patients

Cues from PeriWatch help nurses document on the electronic fetal strip in the moment. If they agree with the cue, they can simply click on it, or go in and edit it quickly. That gives them more time to spend with patients instead of hand-writing information.

Enabling faster interventions

If there are problems with the labor, nurses can recognize them earlier and faster so they can perform interventions that help the baby

recover and avoid larger problems later.



Improving confidence with decisions

Many factors in PeriWatch, especially around its built-in AI, are helping both new and experienced nurses gain more confidence in the decisions they're making in the moment. One example is the PeriWatch Curve feature. Nurses typically do all they can to encourage a vaginal birth, but sometimes it's just not in the cards. Still, nurses will typically question whether they did everything they could. PeriWatch Curves gives them the guidance to know they tried all avenues to keep the labor on track, eliminating any second guessing.



Keeping physicians updated automatically

Rather than having to call in for updates on labor progress, physicians can go in themselves and view the information remotely.



Eliminating double entries and other administrative work

The bi-directional connection to Epic ensures nurses only have to enter data into one system to populate it in both. But it also offers an additional benefit. "One time our Epic system went down for a few

hours due to a power bump," Nicholson says. "In the past when that happened, we'd have to print out all the strips and scan them into the EHR manually. With PeriWatch, all the data was updated to Epic automatically as soon as Epic came back up. Our nurses were quite happy when that happened."

Looking Ahead

Nicholson says she has one other major expectation for the months ahead in terms of maternal and fetal safety.

"As we gain more time and experience with PeriWatch, we expect to see interventions occurring even sooner, which will result in a decrease in unplanned NICU admissions," she says. "Whenever possible, we want to see babies staying with their mothers rather than visiting our NICU nurses. I fully believe PeriWatch will help us achieve that goal."