



**PHILIPS**

Ultrasound

OmniSphere

# Business optimization for a busy ultrasound practice

Michael S. Ruma, MD, MPH  
Perinatal Associates of New Mexico

With a constant drive toward improvement and 30 years of providing maternal-fetal care and prenatal ultrasound diagnosis, Perinatal Associates of New Mexico embraced the opportunity to gauge the innovative capabilities of the Philips OmniSphere software. The practice evaluated daily utilization of its ultrasound systems practice-wide, as well as the enhanced IT capability offered by remote troubleshooting. This article provides the author's perspective on the utility and capabilities of the OmniSphere software system.

## **About Perinatal Associates of New Mexico**

Perinatal Associates of New Mexico is the leading perinatal practice in New Mexico, offering experienced maternal-fetal medicine specialists and sustained practice growth throughout the state. Providing perinatal services at the largest hospital in the state, the practice is well known for outstanding patient care and its leading role in the field.

## Methods

The OmniSphere software was installed on the practice server by the information technology (IT) staff at Perinatal Associates of New Mexico. Sixteen Philips iU22 ultrasound systems across ten different office locations throughout the state were connected to the OmniSphere server. Remote Technical Connect capabilities were evaluated by the practice's IT staff. Dr. Ruma evaluated the OmniSphere Utilization Optimizer.

### Evaluating ease of software installation

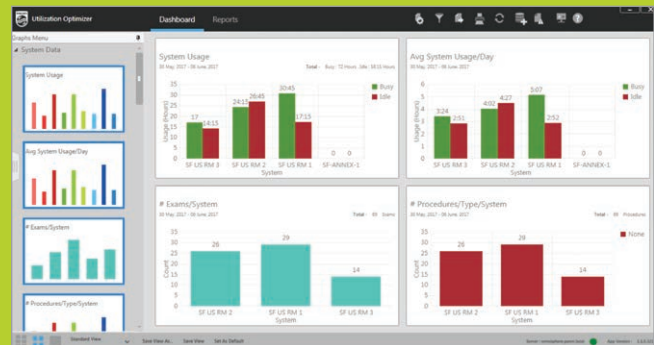
The IT team at Perinatal Associates of New Mexico was provided with the OmniSphere software package and was asked to install it on the practice server. The team found installation of the software package to be intuitive and easily accomplished. IT team members commented that the install process went quite smoothly, noting that “the installer provided by Philips not only installs its own software, but searches and installs any missing dependencies such as database software and framework, making getting off the ground easy and fast.”

Not only was the installation of OmniSphere straightforward for the practice, but also integrating the fleet of Philips iU22 ultrasound systems was found to be highly efficient. “Configuration of the software is very easy as well ... setting up an ultrasound machine is intuitive and only requires a few steps,” said the IT staff. On the first day of installation of OmniSphere, the team was able to identify each of the 16 Philips iU22 ultrasound systems around the state and begin to explore the significant potential of the software and its available options, including Remote Technical Connect and Utilization Optimizer.

### Evaluating utility of Remote Technical Connect

The Philips OmniSphere software package allows users to evaluate ultrasound systems from anywhere there is access to the practice server. Remote Technical Connect allows for system maintenance and troubleshooting by the IT staff or a hospital system's biomedical department. IT members at Perinatal Associates were impressed by the capabilities of Remote Technical Connect. The ability to remotely access the practice's ultrasound fleet has been desired for years by the team. Until now, members of the IT department were required to drive to the practice's ten different offices, which are spread geographically throughout the state. Because the northernmost and southernmost offices are nearly a four-hour drive from the main office, significant amounts of time have been spent traveling to each office to complete IT work on the ultrasound systems. “We could have saved hours on the road doing something we could have accomplished if we had remote access,” says the team. Remote Technical Connect provides the ability to remotely evaluate whether ultrasound systems are online, access the user interface controls on the ultrasound system, and troubleshoot issues – all from the practice's home IT office. This remote capability allows users to look up a given machine and find its name, location, serial number, and other information, which can save the practice time and money.

# Philips OmniSphere offers a convenient dashboard with customizable views.

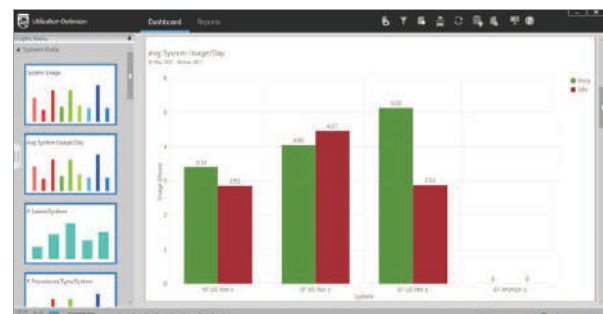


## Evaluating insights from Utilization Optimizer

OmniSphere also provides utilization data from all Philips ultrasound equipment integrated with a medical practice's server. The data is organized on a dashboard with numerous display preferences available, all of which are customizable.

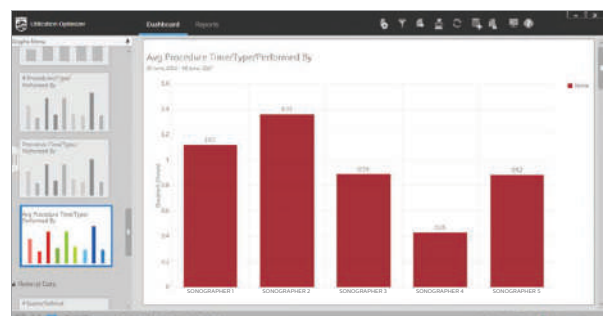
## Data-driven quality improvement

The software package provides the user with numerous capabilities that, without Philips OmniSphere, would have been burdensome or simply not possible. As a growing practice, Perinatal Associates of New Mexico has hired many new sonographers, with and without significant obstetric ultrasound experience. The practice holds sonographers to strict standards for performing obstetric ultrasound exams, including fetal anatomic surveys, cervical length evaluation, and fetal echocardiograms. Evaluating acquisition of appropriate anatomic images had previously been completed by auditing individual sonographer studies using the practice's picture archiving and communication system (PACS) software, however, determining the time required to complete a patient's ultrasound evaluation had proven to be more difficult. The Philips OmniSphere software allows the practice to graphically display the average procedure time per study by individual sonographer. This information allows for data-driven quality improvement at the individual level and allows the practice to identify outliers who are not performing to the time standards set by the practice's ultrasound department directors.



## Assessing utilization by machine and location.

Philips OmniSphere has also allowed the practice to evaluate utilization of the ultrasound fleet in various practice locations. This ultrasound system utilization data has provided the practice with valuable information about the number of hours the systems are actually at work during an eight-hour workday and how long they sit idle.



## Information leads to insight, allowing for more confident decision-making.

At a recent board meeting, physician shareholders discussed the conversion of the practice's older ultrasound equipment to new, state-of-the-art Philips ultrasound systems. Although clinicians express that they often feel overwhelmed by the number of patients they interact with on a daily basis in the clinic, it was previously not possible to quantify how the practice puts each piece of its ultrasound equipment to use serving patients.

The Philips OmniSphere Utilization Optimizer has provided the ability to physically see the hours the ultrasound fleet is used to serve patients, both by location and by machine. This data allows study of the practice's work patterns with focused statistics as stakeholders move forward to update the fleet with the appropriate number of ultrasound systems necessary for an optimal balance between patient workflow and financial investment.

## Advanced software to advance a practice

Philips OmniSphere has made a significant impression on the practice's IT staff, ultrasound department, and physicians. In the past, many questions regarding utilization of the practice's ultrasound equipment simply went unanswered, and planning for the future was left to educated guesswork. Today, with the assistance of this software package, Perinatal Associates of New Mexico is now able to make strategic practice decisions regarding the effect of ultrasound protocol implementations, sonographer staff auditing, and future capital equipment purchases based on practice-centric data and daily statistical information, which helps position the practice for future success.



### About Dr. Ruma

Michael S. Ruma, MD, MPH, joined Perinatal Associates of New Mexico in 2008 after completing his fellowship training in Maternal-Fetal Medicine at the University of North Carolina at Chapel Hill. A native of Omaha, Nebraska, he received his medical degree and completed his residency in Obstetrics and Gynecology at Creighton University School of Medicine. He also obtained a Master of Public Health degree in Health Policy and Administration from the School of Public Health while at the University of North Carolina.

The evaluation of the Philips OmniSphere software at Perinatal Associates of New Mexico was a quality improvement activity and therefore did not require institutional review board approval.

