

PeaceHealth - Oregon Region

Eugene and Springfield, Oregon

The Intelligent Hospital is here!

PeaceHealth's new Sacred Heart Medical Center at RiverBend provides a great patient experience while increasing staff productivity and optimizing utilization of vital resources. With the Versus Advantages™ Real-time Locating System (RTLS), PeaceHealth:

- Allocates appropriate staff based on availability and tracks equipment in the Operating Room;
- Automates patient flow with the help of Glance-and-Go virtual communication boards in the Emergency Department;
- Allows for visible, linear patient process flow automation of daily appointments at the Anesthesia Clinic; and
- Provides real-time nurse location and patient call cancellation throughout the Hospital via real-time integration to the Nurse Call system.



Image courtesy of PeaceHealth

The Path to Enterprise Locating

PeaceHealth Oregon Region first introduced Versus' Real-time Locating System (RTLS) in the emergency department (ED) of its Sacred Heart Medical Center, University District in December 2006. At that time, plans were already underway to include the Versus Solution system-wide at the new Sacred Heart Medical Center at RiverBend—which was under construction less than five miles away.

The University District campus served as a test pilot for the Versus RTLS, before taking the solution system-wide at the new RiverBend facility. Although the University District floor plan was conservative at 36 exam rooms and the new RiverBend ED was four times the size, management at PeaceHealth understood that the Versus solution would provide real-time situational awareness to staff and contribute to a positive patient experience—key to all design elements at the facility.

As plans for the new RiverBend facility developed, including plans to move the existing Anesthesia Clinic to the new campus, PeaceHealth realized they could extend RTLS benefits to patients and staff at the Anesthesia Clinic as well. This would prove especially important to the clinic as it was doubling in size and staff would no longer be able to see all rooms from a single vantage point.

Patient Flow Automation in the EDs

Many ED staff are familiar with the requisite greaseboard and share the express frustration PeaceHealth staff had with their greaseboard. The key word here is *had*.

Before Versus, patient flow was captured manually, on a greaseboard (or two). But, as Marvin Hammerschmith, Regional Analyst at PeaceHealth recalls, the data was never current. “Even at University District, with only 12 patients at a time, that greaseboard was never up-to-date,” he says. “At RiverBend, we sometimes have 30 to 40 patients in the ED at one time. Really, I cannot even fathom keeping up with that on a greaseboard. Now, with Versus, information just flows automatically—and it’s up-to-date.” With Versus’ Glance-and-Go virtual communication boards, staff are able to simply look at a screen and identify next steps.



Images courtesy of PeaceHealth



ED staff everywhere face a tough decision when they send patients out for orders and tests. They know the patient will be returning, but if they erase the patient’s room assignment and associated information,

they risk losing valuable patient information—possibly even a forgotten patient. If they don’t make the room available for a new patient, patients in the waiting room are delayed care, wait time is increased and there’s a chance patients requiring care may leave.

Keep Patient Data with the Patient

By associating patient information to the patient (wherever he may be) rather than to the room, staff do not have to make this choice, and everyone benefits. With the Versus Solution, caregivers can easily view up-to-date information for all ED patients, including those in the waiting room.

- Patient name
- Patient’s current location
- Acuity
- Assigned caregivers
- Room Status
- Total length of stay
- Lab orders and tests

At PeaceHealth Oregon Region, most ED visits start with orders and tests for patients. Staff then send patients requiring lab tests, urinalysis or imaging services outside the department. The room becomes available for a new patient and, at the same time, the patient’s physician and nurses can easily see the status of labs and orders. When the patient returns to the ED and is placed in an available room, Versus automatically picks up the room assignment, allowing caregivers to get to the patient more quickly.

“Versus is keeping up with the patient, even when the patient is not physically present in the ED,” says Ginger Banks, Regional Analyst. “For example,” she says, “Knowing that 12 of 13 tests are complete allows the physician to view the results at the appropriate time, when it’s clear that tests are nearly complete. This piece has cut down on physician frustration and the time the physician spends calling the lab, calling x-ray, just trying to find out status and results. It has also cut down on the time the patient spends waiting to hear what the results are.”

ED Stats at a Glance

PeaceHealth’s RiverBend ED has improved processes using data collected automatically by Versus to reduce:

- ▶ Decision to Admit Times to just 60 minutes (from a baseline of 90-120 minutes)
- ▶ Doctor to Bed by 52%, to just 18 minutes
- ▶ Average Length of Stay by 14%, to 3 hours, 18 minutes

Data for Process Improvement

With changes like these, PeaceHealth has made significant improvements. Joy Cresci, RiverBend and University District ED Director, notes, “With Versus, we’re able to automatically communicate when the patient’s ready to be seen by the physician, when the physician has orders and when the patient is ready for discharge. It’s been a very helpful communication tool.”

One of the biggest transformations is that PeaceHealth now posts ED wait times for both the University District and RiverBend on their website, in real-time. “Posting this information allows us to quickly and easily communicate to our patients. It assures patients that we care about their time, while serving as a performance measurement for us.” says Steve Willis, HID Systems Analyst.

PeaceHealth is also using the Versus Solution to support process changes. For example, they have been evaluating the ‘decision to admit’ to ‘admit’ times. “I would look at the reports daily,” says Cresci. “I could send the data out to everyone, and it was extremely helpful, allowing us to make real-time changes.”



Image courtesy of PeaceHealth

Most recently, PeaceHealth implemented rapid triage and quick registration. Communication of the registration flag through Versus has been an integral part of the process. They’ve also captured data to reflect reduced lengths of stay for patients.

Cresci confirms, “The reality is that the EDs would not be able to function without Versus. It’s very much a part of our workflow.”

Workflow Automation and Communication at the Anesthesia Clinic

Even with a greaseboard, light system and lots of paper, staff at the PeaceHealth Anesthesia Clinic experienced frustrations similar to those in the ED. There simply was not a system that brought everything together for staff. That is, until they implemented the Versus Solution.

“Versus ties it all together for us,” says Claire Rozman, Anesthesia Clinic Manager. “I can sit in my office, *as I am doing right now*, and look at the activity that’s going on in my whole department. The Versus Solution is priceless in regards to efficiency and the ability to save steps by seeing what’s going on.” Rozman can see which nurses are where and with which patients. She knows there are no patients in the waiting room and every patient’s length of stay. She can also compare patient sequence to time of day to assess patient progression. Having real-time situational awareness allows Rozman to manage in the moment.

This information is available to all clinic staff: nurses, technicians, volunteers and the physician of the day, as well as to the anesthesiologists in the hospital who support not only the clinic, but also the operating room, the ER, x-ray, and labor and delivery. Rozman says, “One of the best parts about the system is that it allows us to communicate clinic status to the anesthesia group that works in a different hospital building. Before we had phones, so we could call for assistance, but it wasn’t an effective way to communicate clinic status. Now, patient status of all patients is known in real-time, all the time—without the need to pick up the phone.”

Clinic Stats at a Glance

Knowing where to go and when helps PeaceHealth’s Anesthesia Clinic achieve:

- ▶ Immediate patient rooming
 - 1 minute or less
 - (Patients used to wait an hour or more before registration)
- ▶ 5 minutes from registration completion to nurse arrival *
- ▶ 8.6 minutes from nurse assessment complete to anesthesiologist arrival to see patient *

* From June – August 2009

The hospital anesthesia group monitors the Anesthesia Clinic and the custom acuity system that PeaceHealth created to indicate how involved a clinic patient’s visit may be. This acuity is based on how much time the nurse has been spending with the patient. Rozman explains, “When physicians from the anesthesia group come to assist the Clinic Physician of the Day, they can say, ‘Ok, I don’t have a lot of time before I need to be over to the OR, but I can see one patient.’ He can check the Versus Patient Flow Manager to find a lower acuity patient that fits into his schedule.”

Versus' patient flow management system helps clinic staff better manage time spent with the patient and see the patient in the appropriate sequence. When the patient arrives, she is brought back to a patient room almost immediately for registration. After registration is complete, the nurse goes in with the patient. While the nurse is there, the lab and EKG technicians arrive to perform their duties. When the nurse is done, the anesthesiologist comes in. When the anesthesiologist is done, a volunteer comes in and prepares the room for the next patient. Each of these patient care activities is represented by iconography on virtual communication boards, which update in real-time based on patient and caregiver locations and interactions.

According to Rozman, "Patients are always intrigued with the system. They always want to know 'How did the tech, or nurse, or doctor know to come in the room?' The answer is, of course, we have Versus screens everywhere." The Anesthesia Clinic staff derive next steps 100% from the Versus Patient Flow Manager screens. With centrally located screens and access at in-room workstations, they go from one patient to the next seamlessly. "All our staff really appreciate what the Versus system has to offer and that they don't have to run around asking questions. I can't say enough good things about it," Rozman says. "It's just really helped us."



Image courtesy of PeaceHealth

Integration to Nurse Call

Throughout RiverBend, Versus provides staff location of nurses and CNAs to the West-Com nurse call system. This allows nurses to automatically cancel patient calls by their presence in the patient room since they are wearing a Versus badge. "With data collected by virtue of the Versus solution, we were able to analyze how long it takes to answer a patient call," says Willis. "With this baseline data, operations developed a new 'hourly rounds' process. Now, we run a report every month and every floor can compare themselves to the baseline data. Response times have improved by 5% to 12%." PeaceHealth will point the Joint Commission to this data, and similar data, as evidence of improved patient care delivery.

Resource Tracking in the OR

The RiverBend OR tracks over 350 pieces of equipment, including microscopes, open heart equipment, x-rays, CR, anesthesia carts and nearly everything that goes to ICU. According to Fina Riedberger, CHR Analyst for OR Services, "The CNAs really like it.

It saves them time when they're trying to find equipment that doesn't get returned to the equipment room, which is especially important in our large OR. They don't have to be running all over the place."

Tracking assets also allows the Biomed staff to perform timely preventative maintenance. When they receive notification that maintenance is due, they simply identify the current location of the item using the Versus software, take it out of service and do the maintenance required.

Toward the beginning of 2009, RiverBend also began tracking staff in the OR, specifically for resource allocation. Riedberger explains, "Knowing where staff is allows the OR to quickly adjust and find the right resource if one staff member needs a break or there's been an add-on surgery, but someone's out and needs to be replaced."

The Future at PeaceHealth

Equipment tracking in the OR has been so successful that the ICU, Labor and Delivery and the Mothers/Babies wards have all decided that the need to track some of their equipment as well. Labor and Delivery has also decided that it would like to track physicians and midwives, for the obvious reason: when you have a baby that wants to be born, you need to find the doc—right now!

But, at Versus, we like the way Mr. Hammerschmith sums it up best: "***They've seen the light—and it's infrared!***"



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