

KADLEC

Pacesetter

An Epic transformation

Major renovation of the electronic health record system now in place

KADLEC HEALTH SYSTEM, which includes the medical center, the 15 Kadlec Clinic locations, Kadlec Neuroscience Center and other Kadlec programs and services, recently underwent a massive renovation project. It was not a rework of buildings that one usually thinks of in renovations, but was instead a change of the infrastructure that handles the information flow within Kadlec.

At its heart is a new electronic medical record (EMR) system.

Planning for this change began in 2009 when Kadlec leadership created a vision for a seamless process for scheduling, registration, data input and clinical review of patient information across all patient care encounters. Initially, Kadlec's Information Systems department looked at options to interface the various technologies being used throughout Kadlec Health System.

"It became apparent we could not provide a technical solution to match the vision, nor was it financially feasible to do it even if we could," said Dave Roach, Kadlec vice president of Information Systems. "We began looking at totally replacing our information systems. That was a daunting task."

It was daunting because over the

years, Kadlec had relied on a number of separate systems from different vendors to meet clinical and administrative needs, resulting in challenges, both technical and cultural, around integration and effectiveness.

"The transformation was going to be more than just a replacement of systems and automation of processes," said Roach. "It was about thinking of what is best for our patients and the organization as a whole and that means change. Change is not always easy."

After studying key vendors in the EMR arena, Epic was chosen. The company is recognized as the leader in EMR systems; however it focuses on providing its systems to mid-size and large medical groups, hospitals and integrated health care organizations.

"This was a unique opportunity for a hospital our size, as Kadlec would be one of Epic's smallest customers," said Roach.

Initial implementation work began in October 2010. The system was rolled out slowly, with Kadlec Clinic and Kadlec Neuroscience Center going live in August 2011 and the hospital going live in November. The new application suite called "K-Chart" is now available for clinical users across the Kadlec Health System.

One patient, one chart

Epic simplifies how information about medical histories, medications, test results and insurance is gathered and shared within the Kadlec system, creating a "one patient, one chart" approach. It allows providers to work from the same consolidated, continuously updated electronic record, creating real-time access to information whether the patient is seen at a clinic, in the emergency department, as an inpatient or, in some cases, at a community provider or specialist.

This means health care providers have improved access to critical data more easily and quickly.

It gives patients the ability to schedule appointments, order medications, access test results and other medical records as well as email inquiries to physicians.

It has built-in cross checks (such as flagging potentially dangerous drug interactions) to help ensure patient safety. Its electronic ordering eliminates potential errors in transcribing handwritten orders.

"It also helps Kadlec Health System evaluate the quality of care we provide across the entire system so we can continually improve our care," said Roach. ○

For patients, an Epic impr

WE LIVE IN a digital age. It affects every aspect of our lives. In our health care, electronic medical records (EMR) is an area that has been evolving quickly as hospitals and medical care providers move away from paper charts and records.

The new “one patient, one chart” Epic system at Kadlec links all hospital departments, clinics and services, creating a single electronic record of a patient’s entire medical history.

“With providers having a patient’s up-to-date status and treatment plan at their fingertips, it should improve the patient experience,” said Alex Scortzaru, Kadlec’s Epic project director. “Patients also will be answering fewer repetitive questions. For example, if a nurse asks about allergies and notes it in the electronic record, future providers can see that answer without having to ask it again.”

Patient safety is increased with the electronic ordering of medications, built-in drug checks and best practice alerts.

However, patients will have even more direct benefits with Epic’s My K-Chart application, a web-based system devoted to helping patients take charge of their own health care.

Through My K-Chart, patients can securely log in from anywhere in the world and:

- Access selected portions of the patient’s personalized medical record from all providers within Kadlec’s Epic system
- Review test results
- Make appointments, pay bills, request prescription refills online
- Send and receive secure messages with providers
- Receive health-screening reminders and access reliable health information

“My K-Chart encourages patient engagement in their own health care,” said Scortzaru. “They have 24-hour access to their medical information, make appointments at their convenience and find health information that they know is reliable. They can even print growth charts. It’s accessible whether they are across town, in another state or in another country.”

There is even an iPhone app available.

How you can access My K-Chart

“If you are a new patient, you will receive information about how to access My K-Chart,” said Scortzaru. “Existing patients can get instructions on how to access it at their next appointment, or they can call their primary care physician’s office and they will be given the access code.”

Epic’s freestanding personal health record, called Lucy, offers patients an additional option. It is a health diary that can plug into My K-Chart — or disconnect from it, which means patients can take it with them wherever they go. Patients can also organize the medical information in one place that is readily accessible and include information from My K-Chart or upload standards-compliant Continuity of Care documents from other facilities.

Patients also benefit from the wide implementation of the Epic system across the country. “Should one of our patients move to another community and need medical care, if that provider or hospital uses the Epic system, that patient’s complete medical records are easily transferable,” said Scortzaru. ○

Protecting patients’ privacy

One of the most important features of the Epic system is its emphasis on the protection of each patient’s confidentiality and privacy. And, it’s also something that Kadlec sees as critical and takes very seriously.

“Access to any information on the Epic system is on a ‘need to know’ basis,” said Dave Roach, Kadlec vice president of Information Systems. “If someone doesn’t have a reason to access information they cannot access it. I cannot access patient medical records, even though I work for Kadlec, because I don’t need that information. The system only allows those who need access, and only the portion of information that they need.”

Kadlec itself has a very strict policy on access to patient information, said Roach. “And Epic supports that policy with very strict built-in safety systems.”

A computerized system can in many instances provide higher levels of security than possible with conventional paper records, said Roach. Because Epic tracks access, audit trails can show how and when records are accessed and the types of information accessed and the system can deny inappropriate access.

“Certain information is considered extremely sensitive, and it is kept behind additional walls. The only way to access it is to do what we call ‘break the glass,’” said Roach. “There are very strict rules in place to protect patient safety and security. Epic is a system that enhances patients’ privacy and safety.”

my
K-CHART

ovement

What is Epic?

- A physician order system allowing providers to manage and communicate orders and results
- A clinical tool that makes information accessible to those who need it
- A medication record and closed-loop medication administration system that ensures patient safety and reduces errors
- An integrated system that allows data to move with patients across all areas such as clinics, the emergency department and inpatient units
- A structure for patient registration, appointment scheduling, billing and other business-related functions
- An online communication tool that connects referring providers
- A patient portal that empowers patients to become directly involved in the management of their own health information and services

Epic by the numbers

Number of Applications
Replaced by Epic
31

Number of Days of
Training at Epic
694

Number of Team
Members Certified in Epic
74

Number of Kadlec
Employees Trained
2,119

Number of Classes
Held in Training Staff
750



Epic physician benefits

Physicians often speak of “the gold standard” in health care. In the case of electronic medical records (EMR), Epic is that gold standard. For physicians, implementation of the new Epic system means that whether the patient is seen at their office, in Kadlec’s Emergency Department or having an X-ray done at Outpatient Imaging, the provider can quickly access the patient’s actual record.

It’s a seamless sharing of information that allows for high-quality, secure and integrated patient care, while reducing unnecessary services and costs associated with incomplete information.

“At Kadlec, a team of clinicians worked closely with Kadlec’s Information Systems department to make sure the new system could support and streamline the care we give,” said Julie Vails, MD, Kadlec chief medical information officer. “It’s a system that benefits the physician in the office as well as the physician providing bedside care at the hospital.”

Epic provides a patient’s pharmaceutical history, past surgeries and other important medical information in an organized, easy-to-access format. With Epic, doctors can access the information from their computers or handheld devices such as iPads. Such instant access shortens the length of time it takes to perform care. Instead of reading about test results, doctors can actually see them firsthand; Epic illuminates, presenting a firsthand view of CT scans, movies of heart catheterization, X-rays and more.

Certain tests may not have to be ordered when the same test was recently performed elsewhere within the system.

“For the physician in the ER who is seeing a patient at 3 a.m., Epic allows that doctor to see immediately what happened with the primary care physician a few days before, rather than having to wait until office hours to get that information,” said Dr. Vails. “Tests may not have to be repeated, saving time and money. It can dramatically improve the quality of care.”

What's happening at Kadlec



KADLEC
Neurological Resource Center

presents

Prescription for Caregivers: Take Care of Yourself

Wendy Lustbader, MSW, is a nationally acclaimed speaker and author on caregiving who will present a one-day conference for caregivers. She is a medical social worker and an affiliate professor at University of Washington School of Social Work.

Lustbader is known for the insight, inspiration, humor, and caring she brings to her teaching and clinical practice. She uses storytelling to animate complex subjects. Additionally, she is a skilled psychotherapist, having worked almost 20 years with people from all walks of life at a community clinic in downtown Seattle.

Session topics are:

- What's so hard about being dependent?
- What's so hard about taking care of someone who is dependent?
- Uplifting and "full of answers"

General registration is \$35, for professionals seeking CEUs \$50, and for family caregivers the cost is \$25. Lunch and refreshments are included in the registration, and limited scholarships are available for family members.

For more information or to register, call Kadlec Neurological Resource Center at (509) 943-8455.



Lori Gardner, a registered dietitian with Kadlec's Diabetes Learning Center, speaks to a group of students at Jason Lee Elementary in Richland during Kadlec Academy, a six-week health education program, made possible by Kadlec Foundation. The program teaches students how to be active, make healthy choices and covers a variety of health topics on the heart, brain, bones, lungs, nutrition and diabetes. Six schools are participating this year. If other schools are interested in having the program, they can call **(509) 627-6258** for more information.



**March 16
6:30 p.m.**

Three Rivers Convention Center

An auction and dinner presented by Kadlec Neurological Resource Center to benefit the programs that improve the quality of life for those affected by neurological disorders.

For information call (509) 943-8455.

New home for Kadlec Neurological Resource Center

Kadlec Neurological Resource Center has moved into a spacious new facility at 560 Gage Blvd., Suite 106, in Richland. The phone number remains the same at **(509) 943-8455.**



Congratulations to this Hero of the Month

Each month, Kadlec's Hero of the Month program honors children between the ages of 3 and 18 who have faced, and overcome, difficult circumstances often enduring a great deal of pain and stress. Their courage and spirit serve as an inspiration.

Kadlec is one of numerous hospitals and child care facilities throughout the country participating in the program, which is sponsored by the Kids Wish Network.

- December's Hero of the Month is Makenna Brandner.

Coordination of care proves critical

Saving Clay

WHEN TESSA HANSON took her tiny new son Clay in for his two-week well checkup with Cynthia Ironside, a certified pediatric nurse practitioner at Kadlec Clinic Pasco Primary Care, she had no idea about how the life of her family was about to change.

But Ironside's desire to find answers as to why little Clay was having difficulty breathing, had an elevated heart rate and lack of femoral (inner thigh) pulse, started the family on an often scary, but successful journey.

"When I couldn't find Clay's femoral pulse, I suspected a coarctation of the aorta, which is a narrowing of the descending aorta and very serious," said Ironside. "I called in Dr. (Aaron) Richardson from our office to examine him as well and he could not find the femoral pulse either. That's a big red flag."

Tessa watched as Ironside "examined him very carefully. She then sent us to get chest X-rays," said Tessa.

"The X-rays indicated there was pneumonia," said Ironside, "so I knew he needed to be hospitalized. But I also called Dr. (Stacey) Hedlund in the Pediatric Center and told her about Clay's lack of femoral pulse."

Once Tessa got Clay to Kadlec's Don and Lori Watts Pediatric Center, Dr. Hedlund, one of Kadlec's pediatric hospitalists, examined him and ordered additional tests including an echocardiogram.

"When the results came back, the doctor sat us down and said Clay had a coarctation of the aorta and that it is a life-threatening condition," said Tessa.

Within minutes, Dr. Hedlund arranged for Clay to be transported by airplane to Seattle Children's Hospital. Meanwhile, she started him on medication to help get a better blood supply to his lower extremities and he was put on a respirator.

Within two days, Clay underwent surgery. A few days later, an echocardiogram found that another coarctation had formed and surgery was set for five weeks after his discharge.

Tessa and her husband, Eric, spent 13 days with Clay at Children's before he was able to come home.

"We saw the Children's doctors weekly at the Richland clinic," said Tessa. "At the third visit, just two weeks before his next surgery, his heart flow was really good. It had cleared itself. They said that never happens. Surgery was cancelled."

When Clay is a teenager, he may have to have surgery, but for now, the Hansons can think about other things like watching him grow like any other baby.

"It was the care that Cynthia took in examining Clay that helped her find what was going on and saved his life," said Tessa. "They told us in Seattle, that had it not been found, he would have gone into cardiac arrest within a couple of days.

"It was really hard with ups and downs, but we all made it and he's doing really well," she said.

For Ironside, the relationship with the Kadlec's pediatric hospitalists was important in getting Clay treated promptly and appropriately. "The pediatric hospitalists are fantastic. I can call and talk to them about situations I am concerned about. They are very good



Tessa Hanson, left, holds her son Clay. She is joined by her daughter Kiley and Cynthia Ironside, CPNP, who made a diagnosis which saved Clay's life when he was just days old.

at what they do. It is wonderful to have a relationship with them and in Clay's case, it made a big difference.

"Clay was a lucky little guy," said Ironside. "Everything worked out just right for him that day." ◉

What is coarctation of the aorta?

Coarctation of the aorta—or aortic coarctation—is a narrowing of the aorta, the large blood vessel that branches off your heart and delivers oxygen-rich blood to your body. When this occurs, your heart must pump harder to force blood through the narrow part of your aorta. Coarctation of the aorta is generally present at birth (congenital) and may range from mild to severe.

What's happening at Kadlec



Kadlec Clinic Nephrology welcomes new physician

Puneet Tandon, MD, has joined Fareed Arif, MD, and Nalini Vassa, MD, at Kadlec Clinic Nephrology. They are all board certified in both nephrology and internal medicine.

Nephrology (a subspecialty of internal medicine) focuses on kidney diseases.

A **nephrologist** diagnoses and treats kidney diseases, including both the conditions these diseases can produce such as hypertension, and diseases that can cause kidney failure such as diabetes mellitus and polycystic kidney disease. A nephrologist also cares for patients following renal transplant.

Care for adult patients with kidney disease is available at Kadlec Clinic Nephrology.

Drs. Tandon, Arif and Vassa believe that kidney disease is under-recognized and early recognition and treatment is crucial for better outcomes.

KADLEC
Clinic

Kadlec Clinic Nephrology
510 N. Colorado Street, Suite A
Kennewick, Wash.
(509) 942-3156



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Put your team together

HeartChase is coming
to the Tri-Cities March 24

Put your tennis shoes on. HeartChase™ Tri-Cities is headed this way.

On March 24, teams of two to five people will be combining technology with athleticism to raise money and awareness for the United States' leading cause of death—heart disease.

The American Heart Association's HeartChase is an innovative community event that provides a fun, new way to promote healthy living and support a great cause. It's been held across the country, and now it is coming to the Tri-Cities.

Think of the around-town excitement from shows like *The Amazing Race* meets wacky team-based games like *Minute-to-Win-It*. And when you combine games, friendly competition and an important mission, you've got great fun with a purpose.



HeartChase will bring families, friends and coworkers of all ages together in a community-wide competition to uncover clues, solve puzzles and complete challenges in a race to the finish line.

Kadlec Regional Medical Center is the title sponsor of the local event, which will be held March 24, beginning at 10 a.m. at Howard Amon Park in Richland.

Want to sign up your team, learn more about it or even volunteer? Go to www.heartchasetricities.org.

Pacesetter online!

There is so much happening at Kadlec that we've created an expanded, online version of *Pacesetter*. You can read all these *Pacesetter* articles as well as new articles and additional information.

This online edition includes:

- What are the symptoms, risk factors and various treatment options for congestive heart failure
- Learn about what made our Pediatric Hero so special
- And much, much more.

Just visit www.kadlec.org and click on the "Media" link!

Look for this logo throughout *Pacesetter*. It means you can read more information about this subject in *Pacesetter* online.



Share

Planetree is our philosophy of patient-centered care at Kadlec.

Have you had an exceptional patient care experience you'd like to share? Visit Kadlecmed.org/planetree.



Understanding congestive heart failure

EVERY DAY, KADLEC hospitalist Asif Malik, MD, cares for patients in the medical center with congestive heart failure (CHF). That's not surprising considering nearly 5 million Americans live with the disease. The condition leads to more than 1 million hospital stays, including many repeat visits and is the leading cause of hospitalization in the elderly, playing a role in as many as 80 percent of heart-related inpatient admissions. It is the fastest growing cardiovascular disease in the United States.

Heart failure can be life-threatening, and it can lead to sudden death. People with heart failure may have severe symptoms, and some may require heart transplantation or support with an artificial heart device.

While CHF cannot be cured, for many, it can be successfully managed. And, that's where Dr. Malik's extra training can help. He has done fellowship work in CHF and cardiac

transplant, which helps him provide important care at Kadlec and also serve as a resource for other physicians.

What is CHF?

Heart failure is a serious, chronic condition in which the heart is not able to pump enough blood throughout the body. To compensate, the heart may work harder by enlarging the heart chambers, thickening the heart walls or beating faster.

While this may work initially, eventually the heart loses pumping capacity and cannot keep up. Symptoms subsequently develop, including fatigue, shortness of breath, coughing and leg swelling. CHF often develops after other conditions have damaged or weakened the heart.

"Congestive heart failure can easily fool you," said Dr. Malik. "Patients don't always know something is going on with the heart when they experience some of the symptoms. But if a person has a cough, it could be CHF. If the person has trouble sleeping, it could be CHF. If there is a lack of appetite, it could be CHF.

"When a person has these symptoms, it is important not to overlook them, especially for the patient who has had heart diseases in the past," he said.

Who is at risk for CHF?

Risk factors for developing CHF include high blood pressure, coronary heart disease, past heart attack, irregular heartbeats, diabetes, viruses, severe lung disease, congenital heart defects and alcohol use.

While anyone can develop CHF, it is more common in African Americans, men and people age 65 and older.



Asif Malik, MD

Treatment options


"In the past, when a person was diagnosed with CHF, it was the end of their life," said Dr. Malik. "Today, with the new treatment options, people can do amazingly well."

Even when the heart muscle is impaired, symptoms can be relieved and the gradual worsening of the condition can be slowed.

Doctors work to treat the underlying cause of CHF, prescribe medications and sometimes offer surgical options.

"Treatment really begins with the patient," said Dr. Malik. "Changes in lifestyle are critical. Restricting salt intake is key, as is getting enough water. It is important to exercise, even if you get very tired when exercising. If you smoke or drink, you should quit immediately.

"CHF is no longer a death sentence. Treatment has significantly improved. When I see patients in the hospital with CHF, just small changes in medications can make a tremendous difference. Combine that with lifestyle changes, and people can now live a long and active life with it." ○

 **For more information on the symptoms of CHF, risk factors and various treatment options, visit [Pacesetter](#) online.**

Definition of CHF

The term "congestive heart failure" comes from blood backing up into—or congesting—the liver, abdomen, lower extremities and lungs. Heart failure develops when the heart doesn't function properly. The names heart failure and congestive heart failure do not mean the heart has actually "failed" or stopped, but means one or more chambers of the heart "fail" to keep up with the volume of blood flowing through them.

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(509) 946-4611

www.kadlec.org

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Keeping Care at Home

When minutes make a difference

IT WAS QUICK coordination of care by a team of six physicians from four specialties at Kadlec Regional Medical Center that not only saved the life of 31-year-old Ulyana Kuzmycz, but also helped deliver her healthy baby daughter.

Ulyana, who was 35 weeks pregnant, began having chest pain. Heart problems ran in her family, so she knew it was important to see a cardiologist. At her September visit, cardiologist Fadi Alqaisi, MD, discovered Ulyana had an aortic dissection, which is a tear in the inner wall of her aorta. Blood was flowing between the layers of her heart, forcing them apart.

It was a life-threatening situation.

Within an hour, the team of specialists was assembled to determine how best to proceed, while the life of both mother and baby hung in the balance.

“We knew we had to save both of these lives,” said Kadlec Clinic cardiothoracic surgeon Hannan Chaugle, MD, who



Daniel and Ulyana Kuzmycz hold their newly born baby Nina following Ulyana's heart surgery.

performed a nearly eight-hour surgery to repair her heart.

But the heart surgery did not take place until after she had an emergency cesarean section performed by obstetricians Kevin Turner, MD, and Kenton Sizemore, MD.

Little Nina was born, weighing 6 pounds despite being five weeks early.

Just a few minutes later, Dr. Chaugle began her open-heart surgery in the same operating room.

“The patient did really well,” said Dr. Chaugle. “It was amazing. It was one of those days when you feel good to be a cardiac surgeon and you’ve done something good for the patient—in this case, not just one, but two.”

Dr. Alqaisi agreed. “We are very

excited about having the patient survive this highly fatal condition, saving the baby without any effects and also that the patient is still in good condition for future pregnancies.”

According to Ulyana’s husband Daniel, “Given the astute care you have at this hospital, you saved her life.

“You can’t escape the duality of life. My wife almost died and my daughter was born. There is something very honest about that,” he said. “I am totally blessed. I have an amazing, amazing woman in Ulyana. She’s strong, she’s stubborn and she’s got a great heart.”

Now one successfully surgically repaired, which allows her to hold their tiny new daughter. ○