

A Message From the Director



The articles in this issue of *Fast Facts* about robotic surgery and automated pharmacy refill equipment dem

refill equipment demonstrate the value that modern technology can have in improving patient care. This issue is very much in my mind as we near the Go-Live date for ORCHID, our electronic health record, on November 1st.

While we celebrate these advances, it is very important to remember that technology cannot replace the human touch or mind or heart. Technology must serve us and our patients, not the other way around. Just as it is the surgeon's hands that propel the robotic surgery, it must be human effort that propels our care of patients. I have been saddened to hear stories of great primary care doctors, who once looked into the eyes of their patients during visits, staring now at computer screens while their patients talked.

The computerized record, like robotic surgery and automated pharmacy equipment, will improve our care, but we must adapt the technology in ways that enhance our humanity, not diminish it.

When machines free up the time of pharmacists or pharmacy technicians so they can spend their time with patients, we are all better for it. In the same way, as we improve our workflows to mesh with our new computer systems, we must always remember the patient and our dedication to healing.



Harbor-UCLA Begins Robotic Surgery Program

By Michael Wilson

Physicians at Harbor-UCLA Medical Center successfully performed prostate cancer surgery in August using the da Vinci robot, a state of the art surgical device found in the nation's top medical centers. Harbor is the only County-run hospital in the U.S. to have the high-tech system and plans to build a robotics program across its surgery specialties.

"Robotic surgery is becoming the standard of care for many operations," says urologist Jeremy Blumberg, MD, chair of Harbor's robotic surgery steering committee. Because robotic surgery is less invasive, it has the potential to produce superior outcomes through greater precision than laparoscopic procedures or open surgery.

With the robot positioned above the patient, the surgeon operates through a few small incisions and can view the surgical area through a 3D high-definition vision system. Seated at a nearby console, the physician controls the tiny wristed instruments that can bend and rotate with greater motion than the human wrist. The surgeon's hand movements are translated exactly to the robotic arms inside the patient. Because the robotic arms have full range of motion, movements are fluid and natural. "It sounds like science fiction," says Blumberg, "and some patients think we are going to wheel them into a room, push a button, and leave. In fact, the surgeon and operative team are right there with the patient throughout the surgery. The principles of surgery have not changed. Robotic surgery requires the surgeon's knowledge and skill.' Urology is one area that has advanced with robotic surgery, with over 90 percent of prostate cancer surgeries in the U.S. now done robotically. Other surgery specialties at Harbor like thoracic, colorectal and gynecology will also use the da Vinci system. "Safety net systems generally lag behind the technology curve,' says Department of Surgery chair Bruce Stabile, MD. "It's remarkable that we have not just one, but two robots and the capability to treat patients with this state of the art technology. The da Vinci system will help us become a provider of choice for elective surgeries."

The hospital expects to perform multiple surgeries a day to run the systems efficiently. Because robotic surgery is less invasive, administrators anticipate cost savings from fewer blood transfusions and reduction in length of stay. In the case of the prostectomy surgery, for example, the patient went home the day after the procedure, two days earlier than average. Perhaps the biggest return on

(See '**ROBOTIC**' on back)

Central Fill Pharmacy Scales to Growth

By Michael Wilson

Modern pharmacy operations have come a long way from your dad's corner apothecary. DHS' new central fill pharmacy has the capacity to process thousands of prescription refills per day using high volume automation. The central fill pharmacy currently process about 2,000 prescription refills a day and that's expected to grow higher as DHS moves to improve the patient experience at DHS pharmacies, and keep patients who have many choices obtaining care at their onsite DHS pharmacy.

All DHS pharmacy sites, with the exception of LAC+USC Medical Center and Rancho Los Amigos National Rehabilitation Center, are now utilizing the central fill pharmacy for processing of refill medications. LAC+USC and Rancho are scheduled to go live by November.

A central fill pharmacy can process DHS medication refill requests far more efficiently, allow-



('PHARMACY')

ing the onsite DHS pharmacy to focus on the patients who arrive with a new prescription and wait within the pharmacy for their first fill. DHS has partnered with Cardinal Health, a leading pharmaceutical distributor, to run its central fill operations. When a patient calls in a refill request to the automated phone system, the request is conveyed in real time to the pharmacy, which may then electronically forward the

refill request to the central fill pharmacy. The pharmacy then prints labels, scans, fills and seals the prescriptions, which are packaged and delivered to

the DHS pharmacy the next day for patient pick-up.

When you're the second largest municipal health system in the nation serving 800,000 patients a year with growing incidence of chronic disease, balancing future medication demand with cost constraints while ensuring safety and quality is an enormous challenge. Add in drug shortages, higher drug costs, and increasing reliance on medication

therapy and the complexity of running a scalable operation is apparent. "We handle such tremendous volume in

our system that we had to find a long-term solution to control costs and sustain growth, while providing efficient patientfocused care," says DHS Chief Pharmacy Officer Amy Gutierrez, Pharm.D. "When you look comparatively at the historical pharmacy processing data, and our output and operational costs of producing refills inhouse and through central-fill, the numbers are pretty clear." In addition, the Affordable Care Act provided insured patients with pharmacy choices, so DHS pharmacies had challenges to meet in terms of improving

customer service in light of the competitive community pharmacy environment. Pharmacy costs not only include the labor of refilling a prescription and associated inventory costs, but also the task of restocking medications that patients don't pick up. Pharmacists have to remove the order from the shelf, reconcile the medication in the computer system, and physically restock it.

> Cardinal's central fill pharmacy in Valencia looks like a sterile version of an Amazon fulfillment warehouse, with an assembly line conveyor belt that runs with buzzing precision. Formulary drugs are released from giant robotic vats and follow an automated path overseen by pharmacists who

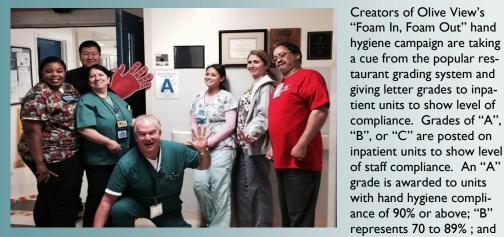
> > use sophisticated software to approve patient refill orders with product and supervise quality control. Patients won't notice any change in how their

medications look, but will see a difference in the process of getting their medications. Telephone automation has improved the refill process and the goal is to eliminate long waits to pick up medications and offer mail service options. Gutierrez expects automation over time to free pharmacists to handle more patient-centered functions as DHS and other health systems adapt to new realities and incorporate new technologies to better serve patients.

"As our pharmacists and pharmacy technicians assume increased patient-focused responsibilities," notes Gutierrez, "there will be opportunities to expand their professional roles in helping DHS achieve goals for improved patient medication management."

"Foam In, Foam Out" hand

And One More Thing...



"C" is below 70%. As of June, all but three units had achieved an "A" grade and the outstanding units have shown strong improvement and are well on their way to getting an "A." Campaign champions coach workers on the World Health Organization's "5 Moments of Hand Hygiene."

LAC+USC Names **New Medical Chief**

Brad Spellberg, MD, has been appointed chief medical officer at LAC+USC Medical Center and professor of medicine and associate dean for clinical affairs at the Keck School of Medicine of USC. He



replaces Hal Yee, MD, who served in the role in an interim capacity.

As medical chief, he will oversee delivery of medical care with a focus on reorganizing quality of care programs, improving performance, supporting expanded primary care access and delivery, and aligning the hospital with departmental aims to provide more and better care at less cost.

Spellberg has worked for the County for 9 years, including residency and fellowship training at Harbor-UCLA Medical Center. He joins LAC+USC from Harbor, where he served as associate medical director and director of the Internal Medicine residency training program.

"This is a very exciting time to be in health care delivery, particularly in the safety net," said Spellberg. "We are in a brave new world where public hospitals must compete at every level with private hospitals to prove to our patients that we will deliver the best care possible to them. We've got a great team at LAC+USC and I'm confident that we can compete with the best hospitals to provide the best possible care to our patients.' Spellberg is a widely published national expert on infectious diseases and antibiotic resistant "superbugs." He has published more than 100 peer-reviewed papers in areas of infectious diseases and antimicrobial therapy, and serves on a steering committee of an NIH clinical trials leadership group executing clinical research to reduce the public health threat of new superbugs.

('ROBOTIC')



The da Vinci surgery system is less invasive than tradi-tional open surgery or even laparoscopic procedures.

investment will be the enhanced profile of Harbor's surgery training program for residents and fellows completing their graduate medical education, who previously were not getting robotic training. From a recruitment and retention perspective, it's important to have the most state of the art equipment, Blumberg said.

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