

New Devices Take the Pain Out of Hospital Visits

By Laura Landro

New approaches are making it easier to avoid pain, including needle-less blood draws and inhaled pain medications. WSJ's Laura Landro joins Tanya Rivero. Photo: Velano Vascular

Sept. 28, 2015 1:04 p.m. ET

Hospitals are taking the hurt out of common medical procedures.



Needle sticks in the vein, known as venipuncture, are performed about 2.7 million times a day in the U.S., and are often cited by adults and children as among the most negative experiences during hospitalization. Severe pain from broken bones can make it hard for clinicians to manipulate limbs for accurate X-rays. And just the anticipation of stitches and other invasive procedures can cause anxiety, especially for younger patients.

Now, new approaches are making it easier to avoid acute pain, including a needle-less blood-drawing device and topical medications that numb skin before a needle goes in. There are hand-held illuminated “vein finders” that project a map of veins under the skin to avoid painful repeat pokes and fast-acting nasal spray pain control drugs for fractures and other injuries.

With pain control ranked high on patient satisfaction surveys, hospitals are training staffers to make it a bigger priority than the past. That includes formal policies for assessing and treating pain immediately in the ER, and helping patients cope with pre-procedure stress and anxiety.

“If we are the ones inflicting pain, we need to do something proactively to minimize it,” says Sergey Kunkov, director of the pediatric emergency department at Stony Brook Children’s Hospital, part of Stony Brook Medicine in New York.

ENLARGE

Steven Pinto, 15, got fast pain relief with a nasal pain medication spray at Stony Brook Children's ER after a severe leg and foot injury playing football. Photo: Courtesy Pinto family

Stony Brook is one of a growing number of children's hospitals adopting an "ouchless" approach to pediatric medicine. As part of the triage process in the ER, nurses identify children with conditions such as dehydration that will require intravenous fluids, and apply numbing agents that use the anesthetic lidocaine right away so they take effect before it is time for a needle stick. In the case of broken bones, they quickly deliver a nasal pain medication spray that takes the edge off so it is easier to manipulate a limb for an accurate X-ray.

Steven Pinto, 15, was brought by ambulance to the Stony Brook Children's ER earlier this month after another player rammed into his leg while he was playing football. He says he was in extreme pain, and knew he was badly hurt when he saw his foot was facing the wrong direction. Before he went for X-rays, a nurse gave him a nasal spray of the pain drug fentanyl. "My pain was 10 on a scale of one to 10 and that immediately brought it down to five," he says.

Advertisement

After X-rays revealed that his fibula was broken, his tibia was fractured, and his foot was dislocated, doctors sedated him to pop his foot back in place, and performed surgery on his lower leg and ankle, inserting two metal plates to stabilize the limb. His mother, Allison Pinto, says she was relieved that staffers acted to help his pain "as quickly as possible."

Margaret McGovern, physician-in-chief at Stony Brook Children's, says the hospital audits charts to make sure doctors are providing fast pain relief to children who are eligible. Stony Brook is also working with emergency responders and ambulance crews to use the hospital's protocols for administering pain medications during transports.

UCLA Medical Center, Santa Monica's pediatric emergency room also uses numbing medications, vein finders and distraction techniques such as a "Buzzy Bee" device that is placed on the arm and pulses before an IV insert, lessening the perception of pain. A child life specialist works with nurses and doctors, using dolls, diagrams and games to explain to children what is going to happen in age-appropriate language.





ENLARGE

Child life specialist Katie Kolbeck at UCLA Medical Center, Santa Monica helped put Collin Guillory, 12, at ease and offered an iPad for distraction while he was being treated in the ER for a painful torn ligament. Photo: Thomas Neerken

“I don’t know that we can completely take the ouch out of medicine, but we want children to leave having a good experience, and not terrorizing them for future doctor visits,” says Lisa Dabby, attending physician in the emergency department.

Instead of stitches, the hospital often uses dermatologic glue that has been shown to be equally effective in healing some cuts, and comes in a purple liquid that children get a kick out of, according to Dr. Dabby. Rather than automatically insert an IV to deliver medication, nurses administer oral medications when feasible. Parents are encouraged to stay close. “When you are cuddled in mom’s arms you feel safer than when you are sitting in a bed by yourself,” Dr. Dabby says.

Last week, Collin Guillory, 12, was brought by ambulance into the Santa Monica emergency room after hurting his knee in a tag football game. While he waited in a private room with his grandmother, Gloria Gerber, nearby, nurses placed an ice pack on his knee and child life specialist Katie Kolbeck asked if he had any questions. His first one: “Do I have to get a shot?” She assured him the staff would do everything to make sure what they did wouldn’t hurt. When a doctor ordered pain medication Collin asked again if he had to get a shot, and was relieved to be told it was an oral medication. While a doctor examined his knee, Ms. Kolbeck provided an iPad which quickly absorbed his attention, between occasional exclamations of “Ow!” before he headed off for X-rays in a wheelchair. He was diagnosed with a torn ligament and sent home with a brace and crutches.

The first needle stick patients often get is to insert an intravenous tube in a hand or arm to deliver fluids or medication

Generally, blood can be drawn from IVs for about 12 to 24 hours, but after that the tubing is less effective for that purpose, requiring new needle sticks elsewhere every time blood is drawn.

Planetree, a nonprofit hospital membership group that promotes patient-friendly care, is working with San Francisco-based Velano Vascular on pilot tests of a needle-less disposable device that inserts a smaller, stiffer tube through the softer IV tube, momentarily converting it into a blood drawing line without having to stick the patient with another needle.

“We are looking at ways the technology could reduce unnecessary pain and anxiety for patients, as well as provide a safer work environment for health-care providers,” who often have workplace injuries from needles, says Planetree President Susan Frampton.

At Planetree member Griffin Hospital in Derby, Conn., ER nurse Sean White says the Velano device has made it easier for both nurses and patients, especially those with hard-to-locate veins and a need for frequent blood draws during their stay.

Janice Marsh, 71, spent three days at Griffin Hospital recently to get IV antibiotics after she tried to separate two fighting cats and was severely clawed and scratched. She was being closely monitored for a possible bloodstream infection, and after staffers explained the pilot test of the new needle-less blood draw device, she consented to participate. Having been hospitalized in the past with painful blood draws at all hours, “it sounded like a great idea to prevent all the needle pricks,” she says. “Once the IV was in place, I didn’t have to feel anything.”

Write to Laura Landro at laura.landro@wsj.com