

SHEPPARD PRATT HEALTH SYSTEM'S SUCCESSFUL FORAY INTO LEAN

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For a decade now, the Pittsburgh Regional Health Initiative (PRHI) has offered training and guidance in Perfecting Patient CareSM, or PPC, a strategy designed to help healthcare staff members quickly and dramatically improve their performance in every area, from the clinical to the financial. Initial reluctance to adapt PPC's industry-based model to health care has yielded over time, as more institutions achieve the wall-to-wall culture change necessary to proliferate and sustain major improvements. Still, doubts persist. Yes, the thinking goes, *PPC seems to work in hospital settings, but...*

Yes, but will it work in behavioral health?

- ◆ ***...will PPC work in a federally qualified health center?*** Yes, as demonstrated by PRHI's work with the dedicated staff at the East Liberty Family Care Center.¹

- ◆ ***...will it work in a nursing home?*** Yes, as demonstrated by PRHI-led work at the Jewish Association for Aging² and, even more recently at Asbury Heights Senior Living Community³.

- ◆ ***...will it work in a behavioral health facility?*** PRHI's Pharmacy Champion work at Western Psychiatric Institute⁴ provided a look at hopeful change, as more patients received prescriptions-in-hand at discharge, along with the knowledge of their importance and appropriate use. Now, following a one-year PRHI engagement at Sheppard Pratt Health System of Towson, Maryland⁵, PPC is leading a full, system-wide transformation that is exceeding all expectation.

"One exciting thing about Perfecting Patient CareSM," says Sheppard Pratt psychiatrist Sunil Khushalani, "has been the gratitude of staff members who say, 'This problem has been around for 30 years, and we thought it could never be solved.' The biggest surprise is to see how effective PPC can be, how easy it is to learn, and how quickly we've started solving long-standing problems."

In 2008, Dr. Khushalani and colleague Robert Roca, MD, Vice President of Medical

PRHI'S Center for Perfecting Patient CareSM has been approved by the Pennsylvania State Nurses Association as a provider of continuing education.

1 See *PRHI Executive Summary*, Fall 2008.
 2 See *PRHI Executive Summary*, Winter 2008.
 3 See accompanying story.
 4 See *Roots*, "Pharmacy Agents for Change," Jewish Healthcare Foundation, Fall 2009.
 5 Sheppard Pratt Health System of Towson, Maryland is a private, non-profit behavioral health system serving the mental health needs of children, adolescents, and adults. Its 2,300 employees offer 37 programs in 12 counties of Maryland and Northern Virginia, and in 2009, served more than over 57,000 people.

Affairs, enrolled in PRHI's four-day PPC University in Pittsburgh. They never looked back.

"Sunil and Bob thought PPC was the way to go," said Steve Taninecz, who attended that PPC University as a new PRHI employee, alongside Dr. Khushalani and Dr. Roca, and ultimately became their PPC consultant. "Their organization had evidence that both morale and performance could improve. But their enlightened senior staff had already realized that the way to enhance morale was to get more people involved in improving quality and efficiency. They knew this before they ever even started."

SPIRIT

With any major transformational work, the first year is crucial. Dr. Khushalani said the goal for their first year was to start with small projects in one of their 18 units, just to see if PPC could be applied in a behavioral health setting.

PRHI's Taninecz and Barbe Jennion held a one-day Transforming Culture Workshop for the Board and top leaders. Since then, at least one vice-president has been part of each 3.5-day Kaizen* where major improvements were at stake, sitting side by side with fellow employees, helping to remove barriers and enabling solutions. Significantly, President and Chief Executive Officer, Steven Sharfstein, MD, and Vice President of Medical Affairs, Robert Roca, MD, attend many of the report-out sessions held thrice a month, at the conclusion of each Kaizen.

Although the effort started small, the objective was to ramp up quickly, exposing and engaging as many employees as quickly as possible. The monikers for this system—Toyota, Lean and PPC—did not prove very inviting to the Sheppard Pratt team. So they came up with their own acronym: SPIRIT, for "Sheppard Pratt Improvement Resources Inspired by Toyota."

Too often, staff members view new ideas as "initiatives" or "morale boosters," a flash in the pan without any real clinical consequence. Leaders at

*A Kaizen event is a two-to-five day continuous improvement event that brings together a team of people from all levels of an organization to focus on a specific process enabling small, rapid improvements over a short period of time.

Sheppard Pratt sought to show the staff that this was not a program, but a new way of doing business. And according to Dr. Khushalani, "Morale and the quality of clinical care are linked. Getting employees a basic key right before the first day of their work, which allows safe entry and exit from their unit; getting the right food to patients; not having patients wait hours for discharge—all of these things have large impacts on other processes."

Here are examples of the accomplishments of this first year.

Keys for New Employees

For as long as anyone could remember, it took a long time for new clinical employees to get their basic key—the one that opens their own units and the exits (not to mention the employee bathrooms). The situation was not just unwelcoming for new employees, making it difficult for them to do their jobs, but in the event of a power failure, it could have created a real safety hazard.

Despite the safety risk, everyone accepts that this was the way it had always been, across the whole system—a process that was inefficient yet entrenched.

The Kaizen team followed 15 requests for keys and discovered delays ranging from 2 to 44 days, with most requests taking more than two weeks. Sometimes, the key was ready, but the employee had not picked it up. Together the team created a standardized key request form. They standardized and "mistake-proofed" the way keys were processed in the Security Department, eliminating "batching" and making information on new employees available daily. Since this Kaizen, new employees have received their basic key from the Security Department on the first day of orientation 100 percent of the time. Reducing waste in the processing and production of keys saved time for security and maintenance staff.

Solving one long-standing, seemingly intractable problem this fast demonstrated to the staff members that their leaders were intent on making their work lives better. Word began to circulate that these methods worked. It was a "quick win."

Right Meals Every Time

For patients, receiving the meal they expect, the one the doctor ordered for them, weighs heavily in how they evaluate their hospital experience. Because geriatric patients are the most vulnerable to dietary errors, the team, under the guidance of Dr. Roca, went to work in two geriatric units first. They set these clear goals:

- ◆ Food allergies are always noted on the order
- ◆ The food delivered is always consistent with doctor's orders
- ◆ All patients receive what they expect at every meal

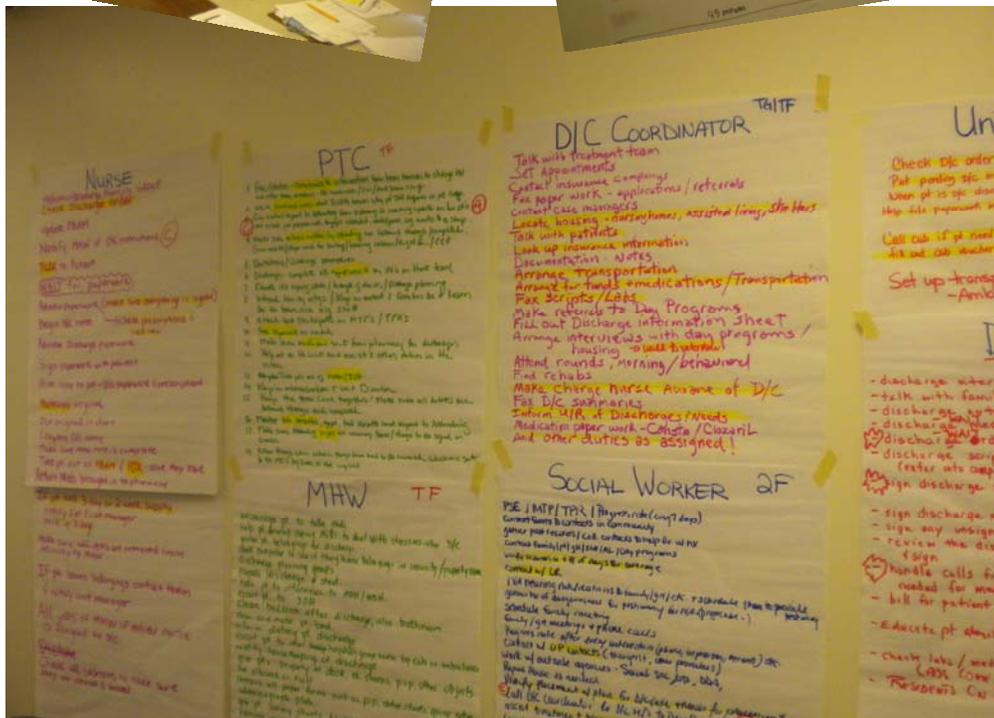
“As Toyota cautions, technology must be used cautiously and thoughtfully,” said Dr. Khushalani. “We discovered that our electronic medical record system (EMR), used to enter orders, would have to be addressed, so we proceeded with care.”

When the team observed meal entry, they discovered that there was no standard way to order. Orders were batched, and multiple faxes and updates were arriving in the dietary area in a disorganized way.

Stacy Setterberg, Clinical Nutrition Manager, with Current State Map at Dietary Kaizen ▼



▲ Courtney Patti, Social Worker, Takes a Break at The Discharge Planning Kaizen (Clarification of Roles on Wall Behind Her).



◀ Clarification of Roles at the Discharge Planning Kaizen (The writing on the wall shows that just changing one process is not easy, because it affects so many others.)

Within the EMR, it was hard to find where to note food allergies, and without pop-ups to remind them, doctors could forget to enter them.

Through an intense and detailed collaborative effort, the food order was standardized into a single sheet, ending the multiple faxes. The EMR was reprogrammed to streamline food order entry, and food allergies are now a mandatory field.

“In the lexicon of Lean, we error-proofed the pathway,” said Dr. Khushalani.

These improvements, coupled with improved training and visual cues along the food tray preparation line, have advanced the units toward their goal. For the past six months, 100 percent of meals delivered have been correctly screened for allergies (up 5 percent); 97 percent have been consistent with doctors’ orders (up 12 percent); and 88 percent have been what the patient was expecting (up 40 percent, and still rising). Also rising has been patient satisfaction.

The cumulative effects of these improvements are felt widely. “Two or three staff members in each Kaizen seem to take off with it,” said Dr. Khushalani. “They don’t wait. They go back to their units, start cleaning the shelves and closets, start telling their coworkers about SPIRIT. That enthusiasm creates demand for more training.”

Green Room 5S:* Meeting Immediate Patient Needs

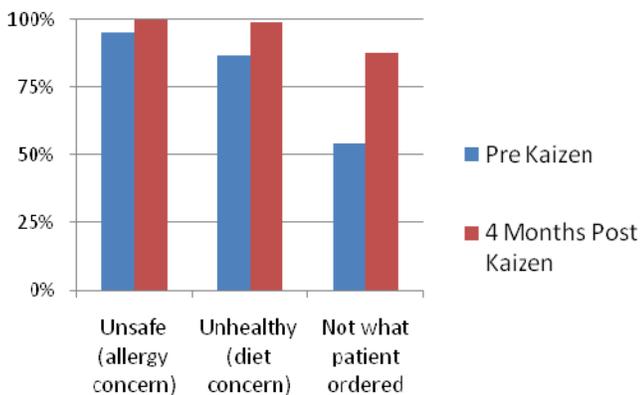
Staff members welcome the ability to gather supplies quickly, and eliminate the 10-20 percent of their day consumed by searching. However, in a behavioral health crisis when a patient may need restraint to avoid injury, the quick assembly of supplies becomes critical for quality and safety.

The Green Room does double duty as an observation room and storage area for emergency restraints. It looked cluttered and unsightly, but the real problem was the safety risk represented by the minute and a half it took the Mental Health Worker (MHW) to find restraint equipment. Likewise, locating safety rounds in the Green Room took a minute and a half.

The staff began a 5S of the Green Room, removing and sorting all items; determining which were useful and which could be redeployed to other areas of the hospital; cleaning them; and thoughtfully placing them back in the room where they could most easily be found every time. The team used visuals to show where equipment was kept, and whether it was currently in use: they call it “Status at a Glance.”

The fifth S, sustain, is always the most difficult, so the staff created a “sustain” sheet and a process to go with it. Now, the sheet is signed off daily by the MHW, checked weekly for conformance by the charge nurse and verified monthly by the unit manager. Photos and visual cues continue to reinforce and encourage staff participation to sustain the gain.

Dietary Kaizen - Correct Meals Delivered



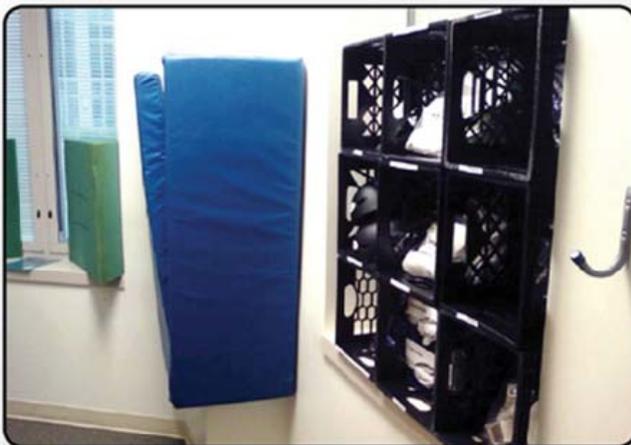
* Toyota Discipline: Sort, Set In order, Shine, Standardize, Sustain



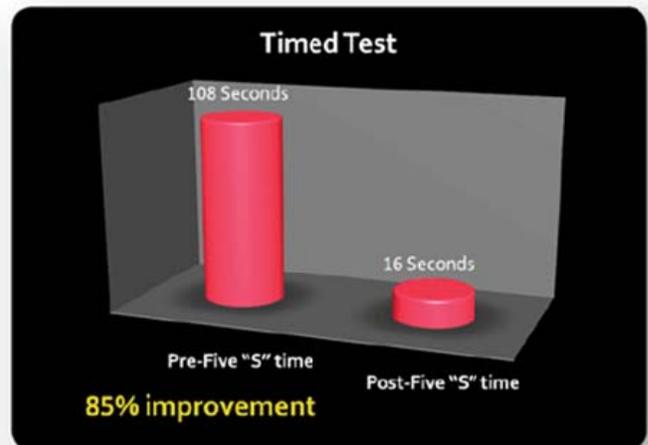
TF Green Room before the Five "S" Process. Items are randomly placed and difficult to find.



How long staff took to complete safety rounds in Green Room.



TF Green Room after the Five "S" Process. Items are well organized and easy to locate.



Staff was tested to see how quickly they could locate five specific pieces of equipment.

“Reducing clutter is more than Spring Cleaning,” said Dr. Khushalani. “It’s a way to reduce the waste of confusion, and the stress it brings, in a complex workplace that is already full of inputs, stimuli and distractions.”

The results have been gratifying. Now the MHW can assemble supplies in just 16 seconds, an 85% improvement. But even more inspiring is the response of staff members.

“I thought my career was going nowhere,” one nurse was overheard to say. “I was about to quit my job when I learned about 5S. Now I am excited about my job. The CEO even came to see what we had done. This is something I’ll be telling my grandchildren about.”

Discharge: On time, with Belongings and Survey Patient Satisfaction

Discharge may seem like the last and least dramatic point in a patient’s stay, but nothing could be further from the truth. What happens at discharge has a great deal to do with whether that patient will do well at home, or require an avoidable and costly re-hospitalization.

Discharge is a complex process with dozens of smaller processes within. Did the patient receive the right medications? Does that patient understand how to use them (especially important for people with mental disorders)? If there’s a handoff to another institution, like a nursing home, will they have all the information that they need about this hospitalization and follow-up?

Given the urge to discharge the patient as soon as possible, did everything germane make it to the patient's chart?

The team at Sheppard Pratt discovered that their discharge planning process was not as efficient as it could be. It did not always address the needs of patients, nor support systems, aftercare providers, and payers satisfactorily. Documentation and communication were not what they should be, a fact that added stress for staff members and could even contribute to poor patient outcomes.

Since tackling the entire discharge planning process in one go was unrealistic, the team started with four targeted goals:

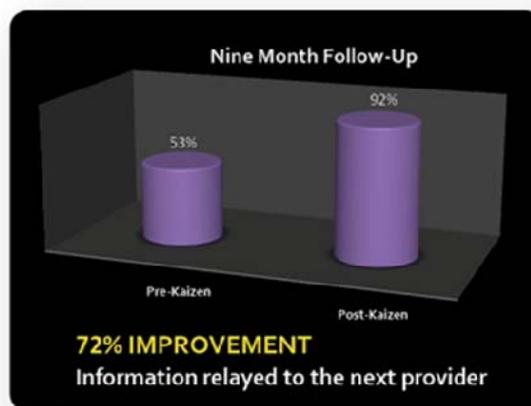
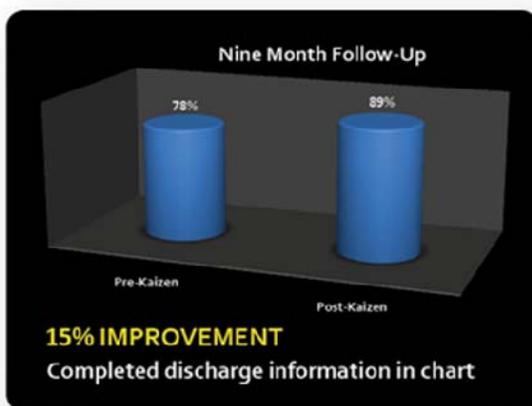
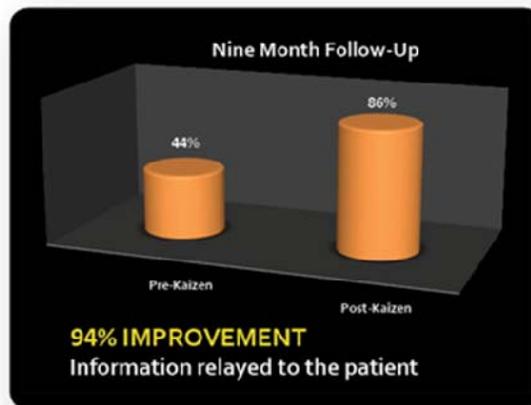
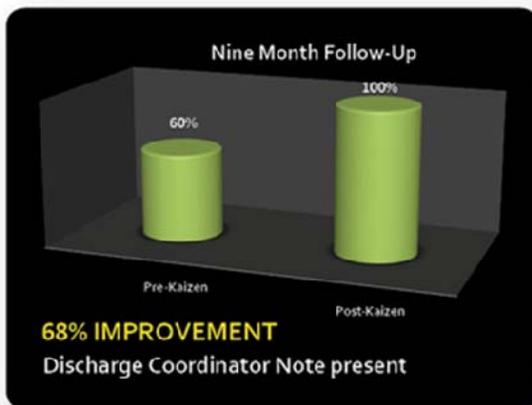
1. Discharge coordinator note present on the chart.
2. Information relayed to patient, received.
3. Completed discharge information on the chart.

4. Information relayed to the next provider, received.

In 3.5 days of Kaizen, the team followed the information flows and discovered ways to keep discharge planning on track.

Working together, they:

- ◆ Created a discharge information sheet and checklist for clinicians.
- ◆ Created a customizable wellness manual for patients, to help each patient learn about themselves and plan their recovery.
- ◆ Created a standardized form to alert pharmacy to the medications patients would need to take home.
- ◆ Freed up hours of staff time by standardizing supplies in each treatment room; assigning places for equipment; clarifying treatment team roles; and posting visual aids to sustain order.



In the months that followed, staff members posted impressive gains in each of their goal areas .

Energized by these gains, team members decided to cascade the work into other areas that had been discovered during the first Kaizen. They also began to experiment with the improvement process itself, narrowing the scope even further and conducting very short Kaizens—some just a few hours long. Here are some of those results:

Belongings. Patients being discharged sometimes did not get all of their belongings back. At check-in, patients relinquish most of their belongings, which are stored, documented and monitored in several locations (pharmacy, security, etc.), with varying rules for access (patient monitored, patient about to be discharged, etc.) With so many pathways, sometimes on discharge, it was hard to find everything, and certain things were often left behind. In addition to wasting time on discharge day, the hospital ended up paying patients for lost items. It was a constant drain, another problem that had been around for years.

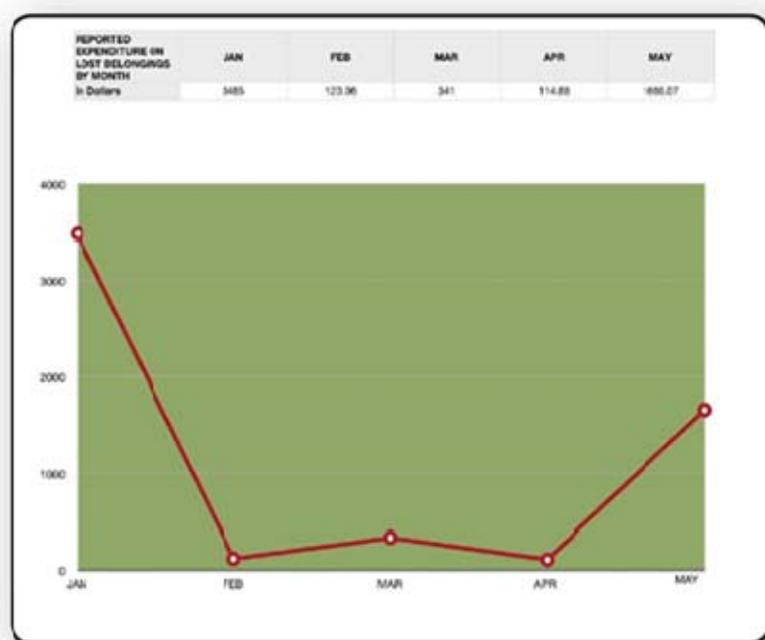
In a 1.5-day Kaizen, staff outlined eight distinct pathways, and created a better flow for belongings. They 5S'ed the property room, installing bins and creating a process for organizing. Cost of replacing lost items immediately plummeted.

Inpatient survey. Among its duties, the Quality and Evaluation Department monitors patient safety surveys. But to gain the valuable insight those surveys can provide, they must be turned in consistently, usually as part of the discharge process. Dr. Khushulani was chagrined to find that the rate of return for his unit was only about 30 percent.

“It seemed like a simple process,” he said. “So why were they lost 70 percent of the time?”

With the help of the Charge Nurse and Lead MHW, a 2.5-hour Kaizen revealed that the activities and pathways were not clearly defined. The one constant in the discharge is the meeting between the patient and the discharge nurse. Now the discharge nurse asks the patient for the survey.

“With that one small change, in two months, our rate of return went to over 70 percent,” said Dr. Khushulani.



Cost to the health system in replacing lost patient belongings.

Collaboration

When PRHI was formed, part of the vision was that competing hospitals would share information and data, collaborating in the interests of patients. To an extent, it happened when infection and cardiac data were shared across the community. But Lean thinking itself was so new, shared Lean initiatives among competing institutions seemed futuristic.

Apparently, the future has arrived.

As part of streamlining transfers, Dr. Khushalani obtained approval from Sheppard Pratt leadership to approach the two neighboring community hospitals that interact most frequently with Sheppard Pratt patients. The goal: When an inpatient psychiatric patient is transferred to the ER, the ER should have all the information that they need. Likewise, a patient transferred from the hospital to Sheppard Pratt must be accompanied by complete information.

Both hospitals were conversant with Lean systems thinking, and had their own initiatives under way. They agreed to work with Sheppard Pratt on improving the safety, quality and efficiency of patient transfers for behavioral health patients.

“Both neighboring hospitals gladly agreed to work with us,” said Dr. Khushalani. “This was the first of several problems we have identified to solve. Eventually, we hope to solve other problems collaboratively. This is a healthy, productive dialogue.”

Celebration

On August 31, 2010, Sheppard Pratt held its first anniversary SPIRIT Fair to celebrate the employees’ work in process improvement. Ten percent of the hospital’s staff attended. The numerous staff members involved in this first year’s project told stories of real and sustained improvement.

By all measures, morale is rising. Data on staff turnover is not yet complete, but it will not be a surprise if it declines in the units where the Lean initiative has taken root. The SPIRIT Fair has continued to spread encouragement and create enthusiasm and demand for more training.

Can Lean work in a behavioral health setting?

“I’m convinced,” said Dr. Khushalani, “that this system can be applied anywhere there is a chain of processes and people who work in teams. When we began to remove waste, we improved quality. When we improved quality, morale improved.”



Dietary Kaizen Team

Team leader: Dr. Robert Roca

Team members: Susan Amrose, Gwen Bowie, Janet Bryan, Barb Charen, Cathy Crowner, Meltorece Crowder, Christina Gazaway, Sheila Harvey, Debbie Hilliard, Dr. Sunil Khushalani, Michelle Middleton, Anita Poloway, Stacy Setterberg, Marty Spence, Steve Truett, Su Wolski-Vincenzen

The PRHI Executive Summary is posted on www.prhi.org.

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Photos taken by Dr. Sunil Khushalani and Brian Glock, employees of Sheppard Pratt.