

SHEPHERD CENTER'S

ICU

RAMPS UP LEVEL

OF

CARE

On-site ICU enables seamless transfers from trauma centers, renews hope and provides continuity of care – all under one roof.

BY AMANDA CROWE, MA, MPH

2

1. Occupational therapist Patti Pasch, OTR/L, works with patient Joseph Watkins in the ICU.
2. Former Shepherd Center patient Adam Bacon, pictured with his wife and son in Lexington, South Carolina, began his rehabilitation in Shepherd Center's ICU.
3. David DeRuyter, M.D., associate medical director of Critical Care Services at Shepherd Center, checks in with patient Marquisha Pratt.





Anna Elmers, M.D., discusses treatment with Adam Bacon. He benefited from the continuity of care provided by Shepherd Center moving from the ICU to the Spinal Cord Injury Rehabilitation Unit, after which he attended the SCI Day Program and Beyond Therapy®.

AS A MEDIC AND FIREFIGHTER, Adam Bacon, 36, of Lexington, S.C., had previously seen and helped care for people with catastrophic injuries.

But nothing could have prepared him for the day he would sustain a devastating cervical spinal cord injury. It happened on October 30, 2014 while practicing jujitsu. Adam spent 11 days in a local trauma center, unsure of the path forward. His neurosurgeon soon referred him to Shepherd Center.

"This man, who spent his life saving others, who pushed his physical limits with martial arts, was now requiring total assistance for all of his mobility and personal care," recalls Hedy M. Maus, LCSW, an access case manager in Shepherd Center's Admissions Department, who assessed Adam's case. "Despite this heart-breaking injury, I saw a fire in his eyes and a willingness and an eagerness to get on the road to recovery."

It was in Shepherd Center's intensive care unit (ICU) that Adam first achieved progress on his journey to recovery.

When he arrived, Adam had lost about 27 pounds, was on sedating medications, a feeding tube and a ventilator. But he and his wife, Maureen, say all that changed at Shepherd Center, and fairly quickly.

"The trauma center did the best they could, but the team at Shepherd Center knew exactly what to do," Adam explains. "Within my first hour at Shepherd Center, they did a swallow test, and I was soon eating a ham and cheese sandwich. That night, they started weaning me off the medications I was on to help lift the fog of trauma and help me communicate my needs and start being responsible for my own care again."

Within a short 24 hours, Adam says he had been visited by most of the staff who would comprise his care team – and become like a second family – for the next five months.

Today, Shepherd Center is the only specialized rehabilitation hospital in the country with an ICU incorporated within its model of care and program. It allows Shepherd Center to admit patients with catastrophic, highly complex injuries directly from trauma center units or ICUs as soon as they are stable enough to transfer. Then, they can start rehabilitation soon after admission, even while still in Shepherd Center's ICU. The earlier specialized teams can evaluate and start treating these patients, the better their outcomes, says David DeRuyter, M.D., associate medical director of Critical Care Services at Shepherd Center.

"The opportunity to prevent problems and improve outcomes in the immediate post-injury window is compromised if patients don't come to us early on," Dr. DeRuyter notes. "If patients are transferred too late in the recovery process, contractures and/or scar tissue may have already set in, and they may not achieve the same level of recovery."

For people who are already under Shepherd Center's care whose health status might decline because of complications from their injury or existing medical conditions, access to the hospital's onsite ICU avoids transfers to acute care facilities and



Mike Marshall, RN, BSN, a charge nurse in Shepherd Center's Intensive Care Unit, prepares a room in the ICU for a patient's arrival.



Rehabilitation, including physical, speech and occupational therapy, can begin for patients in the ICU.

related disruptions in their rehabilitative care.

"Patients who've suffered catastrophic injuries are always on the edge of a downturn," Dr. DeRuyter says. "For example, they may have poorly compensated respiratory failure, they're more likely to develop blood clots and infections, they can get septic very easily, and a small mucus plug can quickly turn into a catastrophe resulting in a cardiac arrest. They need very specialized medical care and attention."

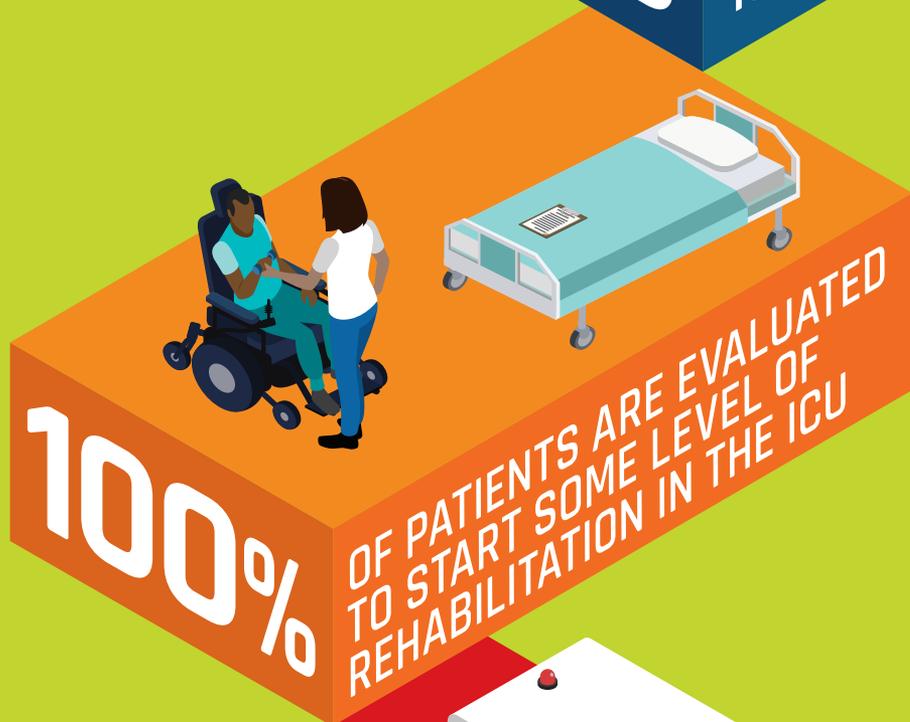
The one thing Shepherd Center doesn't have is an operating room, so there are some occasions when patients need to be transferred to the adjacent Piedmont Atlanta Hospital for surgical intervention. But what's unique is that the same surgical team will follow up on them when they return to Shepherd Center, where they continue with intensive rehabilitation while recuperating – all the while avoiding steps back in the progress they've made.

INITIATING AGGRESSIVE REHABILITATION IN THE ICU

Adam's rehabilitation started in the ICU.

"They did as much as they could to get me moving because while you are lying in bed, nothing is happening; it's just wasted time," he says.

SHEPHERD CENTER'S ICU FAST FACTS



Respiratory therapists, such as Kelley Taylor, RCP, A.S., work with patients on ventilator management and weaning.



TOUCHPOINTS IN THE ICU

Patients in Shepherd Center's ICU have 24/7 access to fully staffed, highly specialized medical care and services – all under the same roof.

- + Coordinated care from two dedicated critical care physicians who oversee all cases and work in tandem with physiatrists and other treatment team members
- + Intensive nursing care by specially trained nurses
- + Aggressive and tailored physical, speech and occupational therapy
- + Respiratory therapists who are keenly familiar with nuances in breathing and early interventions
- + Psychologists who help patients and their families work through the emotional trauma and transitions associated with catastrophic injuries
- + Case managers who engage families in the process and give them a sense of what's planned for their loved one – often within 24 hours
- + Chaplains who provide fellowship, comfort and support

"We don't just think of the patient as sick, we think of them as having rehabilitation potential," says Tammy King, RN, MSN, ET, CRRN, CCM, chief nursing officer at Shepherd Center. "Our whole focus is rehabilitation. And, we start the minute they come in as far as repositioning them, assessing them, getting them in a wheelchair, evaluating if they can eat and how we can change medications to get them more active and participatory."

This often comes as a surprise to families who have experienced the more tentative approaches taken at other, less specialized ICUs or trauma centers, King notes.

"A lot of patients' families are somewhat shocked, asking: 'What do you mean you are getting them up? Are you sure that's OK?'" King says.

While these patients may be severely compromised medically, their body systems need to be re-energized and re-stimulated to avoid complications and ready them for their rehabilitation journey.

"We have patients who are still on vasopressors, who have wounds that aren't healed yet, but they are out of bed and in a chair working with a physical therapist," Dr. DeRuyter adds.

The interdisciplinary teams at Shepherd Center have deep, specialized expertise to provide such

intensive care, while also managing acute medical issues.

"We're not afraid to put our hands on and touch patients because we've been trained on how to handle them, and it's all we do," King says.

There are clear upsides to facilitating such early and aggressive activity, including being able to prevent secondary complications that are common with traumatic injuries. Also, the sooner patients get out of bed, the better it is for their breathing, circulation, and bowel and bladder health, and it helps improve their mental status, too.

"They are also exposed to other people just like them, so they know they're not in it by themselves," King adds.

A SAFE HANDOFF AND PARTNER IN CARE

"Because Shepherd Center has a dedicated ICU to admit critically ill and severely injured patients, it allows trauma centers to transfer these patients earlier, which not only frees up beds, but also gives the confidence that these patients will get the best and most advanced care available for that respective injury," says Chet Bhasin, FACHE, MBA, MS, chief operating officer at Shepherd Center.

Shepherd Center's full post-acute continuum of care also helps to prevent readmissions and gets people back

With 10 dedicated beds and two to three transfers from trauma hospitals a week, Shepherd Center's ICU operates at a fast pace.

Pulmonologist Andrew Zadoff, M.D., helps lead efforts to wean patients from ventilators so that more intense rehabilitation can begin.



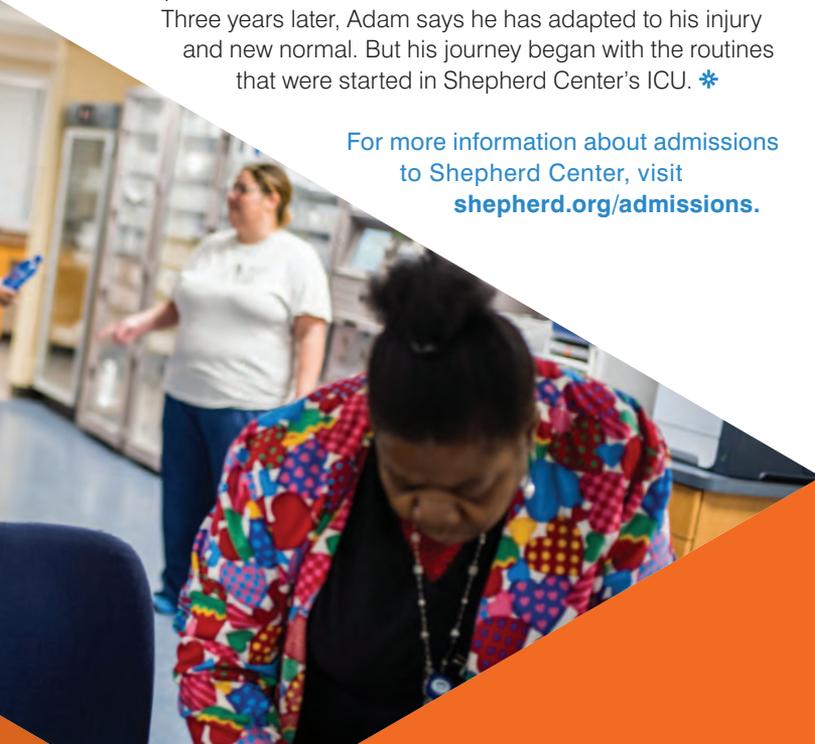
home where they want to be, Bhasin says.

More importantly, it's often where many patients begin to have faith in a future again.

"I went from only being able to see my wife three times a day for 30 minutes at a time to having her sleep beside me in the room, and the very next morning I was introduced to Frosty, a retired service dog, who came in and snuggled up next to me," Adam recalls. "Everything changed. Emotionally, I went from being a wreck to smiling for the first time in almost two weeks. They prep you to deal with the emotional trauma of the injury and what to expect."

Three years later, Adam says he has adapted to his injury and new normal. But his journey began with the routines that were started in Shepherd Center's ICU. *

For more information about admissions to Shepherd Center, visit shepherd.org/admissions.



UNCOMPLICATING COMPLICATIONS

When patients are able to come to Shepherd Center earlier, clinicians can immediately take steps to prevent or limit other complications – a cascade of health issues that can result from damaged nerves, sudden immobility, loss of sensation or cognition, and paralysis of the breathing muscles, among others.

"Many patients are quite sick when they get here," says Tammy King, RN, MSN, ET, CRRN, CCM, chief nurse executive at Shepherd Center. For example, they may be respiratory-compromised or have acute kidney failure, serious infections, problems with spasticity or skin breakdown, and be faced with other acute health issues that existed before their injury.

The sheer volume of patients cared for by Shepherd Center means we are accustomed to assessing complications early on and determining each individual's "norm" for neurological problems.

POSSIBLE COMPLICATIONS:

- + Skin breakdown or pressure sores
- + Urinary tract and bowel issues, including loss of bladder or bowel control and infections
- + Respiratory problems
- + Muscle spasms
- + Blood clots, predisposing patients to pulmonary embolism
- + Weight loss and muscle atrophy
- + Pain
- + Heightened risk of new injuries, especially where there is impaired sensation
- + Abrupt changes in blood pressure and pulse
- + Unmanaged seizures in patients with brain injury
- + Recurrent brain bleeds
- + Swallowing problems leading to aspirations
- + Cerebrospinal fluid (CSF) leaks into the sinuses due to fractures in patients with brain injury
- + Secondary stroke