The Face of Neuroscience in the Intermountain West
A report to our patients, providers and the community
The Neurosciences Institute at Intermountain Medical Center in Murray, Utah, is a comprehensive program that treats all injuries and illnesses of the brain and spine. Our patients come from all over the western United States, and our team of experts is committed to four principles of excellence:

1. Providing the best outcomes
2. Treating patients as individuals
3. Collaborating across specialties
4. Assuring costs are sustainable

If you are a referring physician, call us at 801.507.9800.

www.intermountainmedcenter.org/neurosciences
A word from the medical director

Collaboration and compassion are keys to a comprehensive neurosciences program at Intermountain Medical Center

This report tells the story of the confluence of science and healing. When patients with neurological conditions come through our doors — whether someone who’s suffering a stroke or acute back pain — we bring together the experts, the technology, and the proven processes to give patients the best chance for full recovery and the opportunity to get back to their healthy lives.

At the Neurosciences Institute at Intermountain Medical Center, we treat thousands of patients each year. Our goal is always to remember that each patient is an individual with hopes and fears as well as unique needs. In this report we share some of their stories, as well as the outcomes we’re achieving in providing the highest quality care at a sustainable cost.

This report also tells the story of a vast team of talented clinicians — physicians from many specialties, nurses with advanced training, therapists, pharmacists — as well as support staff, who come together every day at Intermountain Medical Center to care for individuals with a wide array of neurological conditions in a comprehensive, coordinated way. I want to thank the team who has worked tirelessly in recent years to develop the Neurosciences Institute.

We hope you enjoy reading this report and learning about the impact the Intermountain Medical Center Neurosciences Institute is having on thousands of patients — and our community.

Sincerely,

Mark Reichman, MD
Medical Director
Intermountain Medical Center Neurosciences Institute

“We bring together the experts, the technology, and the proven processes to give patients the best chance possible for full recovery and the opportunity to get back to their healthy lives.”

– Mark Reichman, MD, Medical Director, Neurosciences Institute
A 23-year old former collegiate soccer player suffered a stroke, but quickly received a clot-busting drug and made a full recovery.

Summer 2013 got off to a great start for Ashley Irvin of St. George, Utah. She and her husband attended the Taylor Swift concert in Salt Lake City, and then spent enjoying her father’s backyard the next day, when something went wrong. She had just dished up a plate of food when an overwhelming sense of tiredness overcame her. She put her hand to her forehead and tried to figure out what was happening. Her mother could tell something was wrong with her 23-year old daughter, who was a former collegiate soccer player. Her mother suspected Ashley was having a stroke, so she grabbed the phone and called 911.

Within minutes, Ashley was at Intermountain Medical Center, and the team got into her artery, the clot had been dissolved by the tPA. By the time Ashley was sent to the angio suite, where a neuroradiologist and 18 minutes later a clot dissolving drug was administered. Intermountain Medical Center offers the only Neurocritical Care Unit in the state that’s staffed 24/7 by neurointensivists who are trained to manage patients with strokes and other major neurological challenges.

Utah's leading stroke center

Nearly one in five Utahns who suffer a stroke is treated at Intermountain Medical Center, and no other hospital in the state sees more stroke patients. In 2013, 740 stroke patients received care here, certified by the Joint Commission as a Primary Stroke Center, Intermountain Medical Center has seen one of the best outcome measures for stroke patients in the nation.

For patients with stroke-related edema, the best predictors of a good outcome are how early and often tPA is given. The national standard, for example, allows a door-to-needle time of 60 minutes, and 79 percent of eligible stroke patients received IV tPA within the 60-minute window. This success is largely due to our veteran group of neurologists and the Emergency Department’s processes. Intermountain Medical Center has a trained stroke response team that mobilizes any time a suspected stroke patient arrives.

In 2013, 25 percent of our patients were discharged to home (with or without outpatient therapy) that compares to a national average of 40 percent. Intermountain Medical Center's door-to-needle time averaged 48 minutes, and 79 percent of eligible stroke patients received IV tPA within the 60-minute window. The outcomes of stroke patients nationwide continue to improve, and since we treat more stroke patients than any other hospital in Utah, we have a great opportunity to positively impact the lives of thousands of people in our region."

-- Robert Hoesch, MD, Medical Director, Stroke Services

<table>
<thead>
<tr>
<th>Percentage of patients with door to CT in 24 minutes</th>
<th>Percentage of patients with door to tPA less than 60 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermountain Medical Center</td>
<td>Utah Avg</td>
</tr>
<tr>
<td>76.0%</td>
<td>47.2%</td>
</tr>
</tbody>
</table>

“Be FAsT! Call 911!”

<table>
<thead>
<tr>
<th>Balance</th>
<th>Eyes</th>
<th>Face</th>
<th>Arms</th>
<th>Speech</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you unable to balance or coordinate?</td>
<td>Does one side of your face droop?</td>
<td>Does one arm drift downward?</td>
<td>Are the words slurred? Is speech hard to understand?</td>
<td>Is there weakness in one side of your body looking or acting normally?</td>
<td></td>
</tr>
</tbody>
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Intermountain Medical Center is also beginning a telestroke program to support outlying hospitals in diagnosing and treating stroke patients.

Intermountain Medical Center Services Institute

2013 Annual Report

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After three years of constant anxiety, Eric Garcia is returning to normal life and is finally seizure-free

For Eric Garcia of Payson, Utah, 2013 may well be remembered as the year he went seizure-free. The 25-year-old spent three years dealing with the constant anxiety that at any moment he might have a seizure. When he suffered his first seizure in 2010, he was all by himself.

“For after that I was terrified when I got the feeling a seizure was about to happen,” he said. “I didn’t want to be alone.” The anxiety about having a seizure significantly impacted how he lived his life.

The seizures started after a brain injury in 2010. Eric was working on the roof of a building in Salt Lake City when he fell two stories and sustained a skull fracture. He spent weeks in the hospital and underwent several surgeries. A couple of months later, after he was home, the seizures began.

About a year later, with no success in controlling the seizures, Eric saw Tawnya Constantino, MD, an epileptologist at Intermountain Medical Center. Her treatment began by trying different epilepsy medications. Eric soon gained confidence in Dr. Constantino. “She’s good at reading personalities,” Eric said. “She knew how to approach my treatment plan.”

After several tests to identify the seizure focus and evaluate memory and language abilities, Dr. Constantino and her team determined Eric was a likely candidate for epilepsy surgery.

Surgery helps a Payson man corral EPILEPTIC seizures

The first step in Eric’s epilepsy surgery was to ‘map’ the brain’s electrical activity. This was done using a frame mounted on the surface of the brain. The frame was left in place for several days as the posts were implanted. Then the anesthesiologist would make a small incision on the side of his right temple and a larger portion on the right upper neck area. After just two more days in the hospital he was home.

“Making the decision to go through with the surgery wasn’t easy for me,” he said. “I’m so glad I did.”

Today Eric is back to the things he loves. He’s working part-time on his grandfather’s farm in Spanish Fork. He and his girlfriend, Lacey, love to play volleyball with friends on the shores of Utah Lake. Eric likes to ride his horse, read his mom’s old pick-up truck, play video games to explore the far future, and travel to Las Vegas. He immediate plans are to find a full-time job and start a family.

Although Eric deals with some short-term memory loss, life is returning to normal and he’s learned to take things in stride. “It is what it is,” he said.

Epileptologist duo helps patients manage seizures

Untreated epilepsy can be a debilitating condition for patients who face the prospect of constant seizures. Four years ago, Intermountain St. George Hospital opened one of the only comprehensive epilepsy centers in the Intermountain West.

The center is now run by two board-certified epileptologists, Dr. Constantino and Dr. MacDonald, and has a state-of-the-art inpatient epilepsy monitoring unit with EEG, video monitoring, and a paired monitoring program.

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The center is now run by two board-certified epileptologists as well as two nurse practitioners and includes an outpatient clinic, a sleep lab, inpatient monitoring unit, and a program to monitor patients in both medical and adult intensive care units.

Today the center is recognized and certified as a top-tier program by the National Association of Epilepsy Centers. “The remarkable growth of the epilepsy program is a clear testament to the growing understanding of the importance and value of specialized epilepsy care,” said Tammy Conantone, MD.
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— Tawnya Constantino, MD, Medical Director, Epilepsy Services

Intermountain Medical Center inpatient Electroencephalographies (CEEG/VEEG) in 2013 compared to past years

Thanks to the NEURORADIOLOGY team, a Holladay man lives to walk his daughter down the aisle

Al Buxton suffered a stroke, had a thrombectomy, but still does most of the things he loves to do

Neuroradiology plays a key role in diagnosing neurological conditions

Intermountain Medical Center’s team of neuroradiologists plays an important role in diagnosing and treating a number of neurological conditions.

The neuroradiologists are involved in imaging, which is used to diagnose stroke, understand the source of strokes, brain injury,
In addition to saving lives, our goal as diagnostic and interventional radiologists at Intermountain Medical Center is to restore, as much as possible, the patient’s quality of life following a neurovascular event.”

— John Jacobs, MD, Medical Director, Neuroradiology

### MRIs, CT scans, and Endovascular procedures performed in 2013 at Intermountain Medical center

<table>
<thead>
<tr>
<th>MRIs</th>
<th>CT Scans</th>
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<tbody>
<tr>
<td>10,694</td>
<td>12,659</td>
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</table>

#### Endovascular Procedures

- 21 Intraaerial embolizations
- 8 Extracranial embolizations
- 26 Neuro stents
- 26 Mechanical thrombectomy/intra-directed intra-arteral TPA
- 1 Intracranial percutaneous transluminal angioplasty
- 40 Non-lytic infusions
- 231 Non-intervention procedures

#### In four days, Greg went from healthy and active to not being able to walk due to Guillain Barre syndrome

On Dec. 7, 2012, Greg Burrow, a 24-year-old from Taylorsville, Utah, had classes at Salt Lake Community College and was anticipating his next shift at the Copper Onion Restaurant. It was a typical Wednesday, but one thing was different that morning — his hands and feet felt a bit numb.

He thought a good workout at the gym, where he was a regular, would take care of that. But after he got home from the gym his life started and couldn’t stop. He assumed he was getting sick, so he took it easy the next day. By Friday, he could hardly walk. He went to his doctor, who assumed he was getting a cold, or even identified the cause of back pain or other spinal disorders.

In the Emergency Department, time is of the essence in treating strokes. Our neurologists help nearly 80 percent of suspected stroke patients receive a CT scan in less than 25 minutes.

In addition, our neuroradiologists are interventionalists who have access to the latest technology that’s needed to treat a variety of conditions.

One of the most common procedures is mechanical thrombectomy, in which a small wire mesh is placed in a carotid artery that’s narrowed due to atherosclerotic disease.

Another area of expertise is carotid artery stenting, in which a stent is used to keep the artery open.

For hemorrhagic strokes, our interventional radiologists are able to use embolization, often incorporating tiny coils to stop bleeding. These procedures are sometimes done in tandem with neurosurgery.

Using fluoroscopy-guided imaging, the interventional radiologists are able to insert a catheter into the artery, retrieve the clot, and restore blood flow. The physicians also routinely place tPA, a clot-dissolving drug, into the arteries, which can be highly effective in restoring blood flow as well.

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“Continuity of care is a big part of our rehabilitation program. Since most of our patients come to us from within our hospital and then receive outpatient therapy services through Intermountain programs, we are better able to coordinate their care.”

– David Ryser, MD, Medical Director, Neuro Rehabilitation

**Intermountain Medical Center’s Neurosciences Institute**

**Rehabilitation team specializes in treating neurologic patients**

Intermountain Medical Center’s Neuro Rehabilitation Unit offers a great option for neuro patients who need intensive and integrated inpatient rehabilitation therapy before leaving the hospital.

Eighty-five percent of unit patients have a neurological diagnosis, a percentage much higher than other rehabilitation units in the region. Given the specialization of the unit, patients tend to have higher medical acuities. The center is CARF-accredited and the nursing and therapy staff have a higher level of specialty certification in neurologic conditions than other units in the state.

One key to success is interdisciplinary conferences where each patient’s care is coordinated and reviewed. The unit treats patients with a variety of neurological illnesses and conditions, including stroke, traumatic brain injury, spinal cord injury, neuropathy, and Guillain Barre.

In addition, the Neurosciences Institute also has an outpatient clinic at Intermountain Medical Center and an outpatient therapy service at TOSH — The Orthopedic Specialty Hospital located one mile south of Intermountain Medical Center. The physicians who manage rehabilitation patients also see those patients in the Neurosciences Clinic at Intermountain Medical Center and hold monthly coordination conferences with the outpatient therapy team.

The Neuro Rehabilitation Unit has a long productive history of clinical research through partnerships with a variety of researchers both within and outside Intermountain Healthcare. Overall, our neuro rehabilitation patients have been the subjects for more than 40 peer-reviewed journal articles during our 25 year history.

Type/number of patients who were discharged from the Neuro Rehab Unit in 2013

<table>
<thead>
<tr>
<th>Type of Patient</th>
<th>Discharges</th>
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</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>140</td>
</tr>
<tr>
<td>Nonsurgical brain injury</td>
<td>10</td>
</tr>
<tr>
<td>Other neurologic</td>
<td>38</td>
</tr>
<tr>
<td>Spinal cord injury</td>
<td>34</td>
</tr>
<tr>
<td>Neuropathy</td>
<td>8</td>
</tr>
<tr>
<td>Traumatic brain injury</td>
<td>44</td>
</tr>
<tr>
<td>Traumatic spinal cord injury</td>
<td>13</td>
</tr>
<tr>
<td>Amputation</td>
<td>21</td>
</tr>
<tr>
<td>Fracture of lower extremities</td>
<td>12</td>
</tr>
<tr>
<td>Traumatic spinal cord injury</td>
<td>13</td>
</tr>
<tr>
<td>Guillain Barre</td>
<td>8</td>
</tr>
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<td>Stroke</td>
<td>140</td>
</tr>
<tr>
<td>Other neurological</td>
<td>38</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>33</td>
</tr>
<tr>
<td>Dysphagia (swallowing disorders)</td>
<td>18</td>
</tr>
<tr>
<td>Parkinson’s disease</td>
<td>10</td>
</tr>
<tr>
<td>Tumors: brain, spinal cord, etc.</td>
<td>41</td>
</tr>
<tr>
<td>Amputation</td>
<td>27</td>
</tr>
<tr>
<td>Heart transplant and LVAD replacement</td>
<td>20</td>
</tr>
<tr>
<td>Trauma and combined neurological stoke</td>
<td>19</td>
</tr>
<tr>
<td>Extreme deconditioning due to heart, lung, or other problems</td>
<td>22</td>
</tr>
<tr>
<td>Other conditions include: Guillain Barre, Lou Gehrig’s Disease, and Alzheimer’s</td>
<td>1</td>
</tr>
</tbody>
</table>

Intermountain Medical Center Neuro Therapy Services provides comprehensive rehabilitation for a variety of neurological disorders. Our team of specialized therapists works to help patients regain their independence and highest possible functionality at home, work, school, and in the community. Our team of physical, occupational, and speech therapists and neurophysiologists work regularly to coordinate the treatment plan for each patient. We have expertise in treating:

• Stroke
• Brain injury
• Spinal cord injury
• Degenerative nerve injury and neuropathy
• Parkinson’s disease
• Multiple Sclerosis
• Dysphagia (swallowing disorders)
• Trauma, brain, spinal cord, etc.
• Amputation
• Heart transplant and LVAD replacement
• Trauma and combined neurological stoke
• Extreme deconditioning due to heart, lung, or other problems
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During the five-and-a-half hour brain surgery, Chris found out her wife, Natalie, had suffered a life threatening ruptured aneurysm from a congenital defect in the circle of Willis – a blood vessel system in the brain. Dr. Jeffery Thomas, M.D., Miss Chrisman, M.D., told her that the surgery was over and Chris could hold her hand, but that was just the beginning of a very long, tiring game.

Natalie was taken to the Neurocritical Care Unit, where doctors and nurses found it difficult to rouse her in a short period. After performing a neurological exam, Dr. Thomas ordered a CT scan, which showed swelling in the brain. She was then able to provide an intravenous medication to prevent a serious brain injury leading to death or disability.

“Neurointensivists provide round-the-clock care in Neurocritical Care Unit

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One day recently, a nurse informed Katherine Thomas, M.D., medical director of the Neurocritical Care Unit at Intermountain Medical Center, that one of her patients had gone from speaking to being difficult to rouse in a short period. After performing a neurological exam, Dr. Thomas ordered a CT scan, which showed swelling in the brain. She was then able to provide an intravenous medication to prevent a serious brain injury leading to death or disability.
Deep brain stimulation offers hope and relief to Parkinson’s patients like Reggie Welles

The next time you pass a semi-truck on the highway, think for a moment about the technology behind the wheels. Reggie Welles, the visionary leader behind Murray-based AST, which specializes in creating training simulation units for truck drivers, Highways, Training simulators, student drivers, and other vehicle operators. Though he’s very comfortable with technology and trained as an aeronautical engineer, Reggie was faced with the difficult decision to have to make minor adjustments to the DBS device. “This team worked very well together,” Reggie said. “It was just a patient, I was a member of the neurosurgeons team.”

Within four months, Reggie had regained a lot of function and was back to the activities he loves. The Parkinson symptoms that were wreaking havoc in his life are largely gone or under control. “I now have the ability to expand my bandwidth of support,” he said, referring to his ability to be more functional at home and at work.

He adds with a smile, “I still can’t play the piano.” But he has returned to his favorite hobby — building radio-controlled model aircraft from scratch, which he put to use when his Parkinson’s condition left him without the ability to operate his hand movements. DBS is a specialized procedure that can effectively treat Parkinson’s by adjusting and managing the symptoms they face. “I’m seeing patients whose lives have been dramatically improved through this procedure.”

Neurosurgeons are able to treat the full spectrum of brain and spine complications.

“Ask the team at Intermountain Medical Center to describe the neurosurgery program here and one word is sure to be repeated: comprehensive.”

According to Mark Reichman, MD, medical director of Neurosciences Institute, neurosurgeons at Intermountain Medical Center have the specialization and technology to handle virtually every brain or spine condition imaginable — from tumors to aneurysms to complex spinal procedures. A specialized team neurosurgeons OSF team consists of board-certified neurosurgeons and the state’s only Neurocritical Care Unit staffed 24/7 with neurointensivists, contributes to excellent outcomes for neurosurgery patients.

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Being in an operating room is nothing out of the ordinary for Shane Hunsaker. He works as a neuromonitorist and assists neurosurgeons as they perform delicate nerve and spinal procedures.

Little did he realize, however, that toward the end of 2013, he’d be visiting the operating room, but this time as the patient rather than part of the team.

Over a period of a few weeks, Shane started noticing he couldn’t move his right leg as well as his left. He was also experiencing some numbness in his right arm and noticed his lifting strength had deteriorated. He asked one of the neurosurgeons he worked with about his symptoms and was encouraged to get an appointment with a neurologist.

“When I woke up in recovery on the 14th floor, the pain and numbness were gone,” he said. “It was a totally amazing feeling waking up with no numbness and pain and realizing my strength had returned.”

He realizes he was fortunate. With his spinal cord compressed and undiagnosed, a simple wrestling match with his son, or a minor car accident could have paralyzed him for life.

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When Shane saw neurologist Robert Hoesch, MD, an MRI was ordered. The scan showed severe spinal cord compression at four levels in the cervical spine, including C3 to 4, C4 to 5, C5 to 6, and C6 to 7. There was also severe spinal cord compression and swelling at all of these levels, which triggered his symptoms.

Shane was soon scheduled for surgery to repair the disks.

“Given the high prevalence of back problems among the population, Intermountain Medical Center is committed to keeping the cost of spine care at a sustainable level.”

– Brian Olenslager, MD, Medical Director, Spine Program
The physiatrician can perform a number of interventions, including spinal and joint injections.

The neurologists and orthopedic surgeons treat the following conditions:

- Lumbar disc repair
- Impingement of tendons and pain pumps
- Spinal cord injury surgery
- Laminectomy surgery

The spine program is also developing close alignment with neurosurgeons and pain psychologists to help patients.

Given the prevalence of back problems among Utahns, Intermountain Medical Center is also committed to keeping the cost of spine care sustainable. According to 2013 Medicare data, Intermountain Medical Center is also committed to keeping the cost of spine care sustainable. According to 2013 Medicare data, Intermountain Medical Center is 47 to 56 percent less than at comparable hospitals in the Salt Lake area.

There are 1,036 outpatient spine injections provided at Intermountain Medical Center in 2013. The surgeries offered at Intermountain Medical Center include:

- Scoliosis surgery
- Spinal cord trauma surgery
- Implantation of stimulators and pain pumps
- Lumbar disc repair
- Spinal cord injury surgery
- Laminectomy surgery

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The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified. The physical therapists at Intermountain Medical Center have extensive experience with spine injury/pain and are McKenzie certified.
Concussion program embraces team approach for treating head injuries

Parley Williams, MD, glad the public is hearing more about concussions. In his time as a physiatrist at Intermountain Medical Center's Neurosciences Institute, he's seen too many situations where individuals have suffered a concussion, and have waited weeks before seeking care. Untreated concussions have played a role in individuals losing jobs, flunking out of college, or even getting divorced. He feels the most important principle of concussion recovery is ongoing collaboration among the concussion team, including physicians, therapists, occupational therapists, neuropsychologists, and specialists.

Once he's diagnosed a patient with a concussion, Dr. Williams works with them to develop regular daily routines and sleep patterns. He prefers to see patients a week or two after a head injury, if symptoms persist. Those symptoms include headaches, sleep problems, dizziness, balance problems, nausea, fatigue, trouble concentrating, memory issues, personality or emotional changes, vision difficulties, and difficulty returning to work or school. One of the myths he frequently encounters is the notion that if a person didn't lose consciousness after a blow to the head, they likely didn't suffer a concussion. As a result, many concussions go untreated or are identified after they cause other problems.

The patients he treats typically have been injured in car accidents, work-related incidents, ground-level falls, assaults, or recreational activities. The patients he treats typically have been injured in car accidents, work-related incidents, ground-level falls, assaults, or recreational activities. The Concussion Clinic is unique because of Dr. Williams and his ongoing experience treating the full spectrum of traumatic brain injuries, from the most mild concussion to the most severe traumatic brain injuries with permanent neurologic deficits. The Concussion Clinic is unique because of Dr. Williams and his ongoing experience treating the full spectrum of traumatic brain injuries, from the most mild concussion to the most severe traumatic brain injuries with permanent neurologic deficits. The patients he treats typically have been injured in car accidents, work-related incidents, ground-level falls, assaults, or recreational activities.

According to Becky Bailey, PhD, local neuropsychologist at Intermountain Medical Center, there are many patients who are recovering from neurological illness or brain injury who are existing on the benefit of neuropsychological care we can offer. As a result, patients aren't identified until they're facing serious life situations, when they're unable to manage daily living activities, medical treatment recommendations, finances or behavior. They're able to diagnose neuropsychological problems as well as cognitive strengths and limitations and help patients manage their deficits by tapping into a variety of resources. Their goal is to maximize patients' cognitive and emotional recovery to help them achieve pre-injury or pre-illness status or to maintain their deficits by tapping into a variety of resources. Their goal is to maximize patients' cognitive and emotional recovery to help them achieve pre-injury or pre-illness status or to maintain independent function for a longer period of time.

NEUROPSYCHOLOGY: An untapped resource for many cognitively impaired patients

Testing is the key to understanding neurological disfunctions for neuro patients

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The **NEURO MEDICAL UNIT** assists patients in confronting the realities of life-changing illness

At that time, patients would be cared for on various floors, and care wasn’t as coordinated. Now there is a tremendous amount of coordination of care for neurological patients. Part of a team of neurohospitalists who provide ongoing care for patients on the 14th Floor. In addition to the physician specialists, the team positions and training staff have all received specialized training in caring for neuro patients. One of the changes they focus on is routine neuro assessments.

According to Dr. Sunderman, the 14th floor has truly become a multidisciplinary team. Besides the physicians and nurses, the team includes nutritionists, social workers, case managers, EEG technicians, and psychologists. “The unit is so team-oriented, it’s unbelievable,” she said.

She describes the floor as the place where many patients and their families often first confront the reality of their condition. “There are life-changing, often disabling conditions, resulting illnesses,” she said. “The 14th floor and the team are skilled at helping these patients and their families understand what the future may hold. After the heroic, life-saving actions in the Emergency Department, ‘reality hits on this floor,’” she said.

“Our multidisciplinary approach gives us an edge in being current with medical advancements and giving good advice. The advice we give is relevant and personalized.”

— Libby Sunderman, MD, PhD, Medical Director, Neuro Medical Unit

On the 14th Floor, the staff care to the patient population as falling into the one-third rule. One third of the patients fully recover. One third will partially recover, and the last third won’t recover at all. Understanding this perspective has helped the team take a proactive approach to patient education. Dr. Sunderman is also seeing two interesting trends: first is that neurological issues, such as stroke, are occurring in younger and younger patients. The second is an increase in neurological issues as the population in Utah ages.

The 14th floor team focuses on adopting evidence-based practices to improve the care they provide. Dr. Sunderman is very invested in research. She recently led an effort to improve communication with patients by changing the timing and approach used by physicians in rounding. She’s hopeful such efforts will improve the experience of all the patients on the unit.