Spinal Cord Injury Center

Specializing in Care and Rehabilitation for Individuals with Spinal Cord Injury and Disorders

Serving Veterans with Spinal Cord Injury for over 50 years
Proud to be CARF accredited since 2000
Spinal Cord Injury Center
VA Boston Health Care System

Mission: Promote the health, independence, quality of life, and productivity of Veterans with spinal cord injuries and disorders (SCI/D) throughout their lives.

Our SCI System of Care: We work in a hub and spoke model; our nationally recognized SCI Center serves as the hub for designated spoke SCI teams at other VA facilities in the New England region.

One of our unique strengths is the full continuum of care for Veterans with SCI/D. Acute care, initial and ongoing rehabilitation, comprehensive specialty care, primary care, outpatient care, home care, virtual care, respite care, and long-term care are all delivered in an integrated system with life-long access to needed care and resources. Health promotion services, medications, supplies, and equipment are provided life-long to meet individual needs.


We serve 400-500 Veterans with SCI/D at our SCI Center each year. Characteristics of persons served from Fiscal Year (FY) 2020:

- Age range: 21 to 96 years (average 65 years)
- 96% male, 4% female
- 87% Caucasian, 7% African American, 3% Hispanic, 3% other, multiethnic or unspecified ethnicity
- Cause of SCI/D:
  - 55% Traumatic injury (Vehicular 42%, Falls 30%, Sports 13%, Violence 10%, Other 5%)
  - 45% Non-traumatic (Spondyloitic/arthritic, tumor, infection, vascular, inflammation, immune)

In addition to offering the full scope of services to the vast majority of persons served in our SCI system of care, we provide more focused care and expert consultation based on individual needs and goals, to Veterans with conditions that are primarily managed by other teams (e.g., motor neuron disease or multiple sclerosis with prominent extra-spinal involvement).

Team Approach:
We provide care in a team approach with multiple disciplines and professions working together to achieve the best outcomes. You, the Veteran, are the most important member of the SCI team. You will help make many important decisions. We recognize that each person served is unique and the treatment plan is designed with this in mind. Services are provided in a caring environment using the latest technology. A Fisher House on campus allows family members to be close to their loved ones during hospitalization.
Services Provided:

- Medical and rehabilitation management by physicians who are board certified in SCI
- Rehabilitation nursing
- Physical therapy including mobility training, strengthening, and endurance training
- Occupational therapy for self-care and living skills
- Seating evaluation and wheelchair prescription/maintenance
- Assistive Technology Program to assess your individual needs and help in selecting, learning and using equipment to increase functioning
- Aquatic or pool therapy
- Education in altered body function after SCI for persons served, families, and caregivers
- Therapeutic recreation, including a very active adaptive sports program for all seasons
- Vocational rehabilitation to assist with job training and competitive employment
- Driver’s training and evaluation
- Social work services including assistance with benefits, community resources, community agency referrals, accessible housing options and for patient, family, and caregiver support
- Emotional and psychological support through individual, couples, family therapy and family and caregiver support groups
- Respiratory therapy
- Ventilator management
- Bowel and bladder management including urological evaluation
- Sexuality and reproductive health education and counseling
- Pain management
- Management of muscle tone and spasticity, including implantation and refilling of Baclofen pumps
- Specialized wound care and prevention
- Independent Living apartment is available on site to apply new skills in an adapted environment prior to discharge home
- Telehealth to connect with the SCI team from home or from another VA facility
- Assessment for home and/or work-place accessibility
- SCI-Home Care for training, problem-solving, and follow-up after return to home
- Annual Checkups for yearly wellness checks with a focus on prevention and early identification of problems related to SCI.
- Outpatient Services for ongoing medical and rehabilitation follow-up and treatment
- Respite care services
- Peer Mentor Program supported by individuals with SCI/D who share experiences and helpful strategies

Close collaboration with other departments provides easy access to additional services for Veterans with SCI. These include Prosthetics and Orthotics, Durable Medical Equipment, Plastic Surgery, Neurosurgery, Urology services, Pulmonary Function Tests, Speech-Language Pathology, Medical Nutrition therapy, and Chaplain Services.

We also work closely with Paralyzed Veterans of America (PVA), an outside non-profit Veteran Service Organization that is available to work with Veterans and provide assistance with getting earned benefits and resources.
SPECIFIC PROGRAM INFORMATION & OUTCOMES:
We have organized our program goals and outcomes under five Areas of Excellence:

I. Excellence in Population Health

Inpatient SCI/D Rehabilitation Program
We provide a comprehensive inpatient rehabilitation program focused on improving function and independence, and learning important skills and knowledge for life following SCI/D.

Characteristics of persons served – Fiscal Year (FY) 2018 to FY 2020:
- 84 individuals were served in the comprehensive inpatient SCI/D rehabilitation program.
- 42% Traumatic injury: due to falls, vehicular accident, violence, or sports (in descending order)
- 58% Non-traumatic: most commonly from damage due to spinal arthritis, narrowing or surgery, other causes included infections, tumors, vascular damage, inflammation, or auto-immune disease
- Age at injury (Table)

<table>
<thead>
<tr>
<th>Age Range (years)</th>
<th>Non-Traumatic</th>
<th>Traumatic SCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-39</td>
<td>6.2%</td>
<td>8.6%</td>
</tr>
<tr>
<td>40-59</td>
<td>18.8%</td>
<td>21.7%</td>
</tr>
<tr>
<td>60-79</td>
<td>62.5%</td>
<td>69.5%</td>
</tr>
<tr>
<td>80+</td>
<td>12.5%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

- Level of injury: High Tetraplegia 23%, Low Tetraplegia 2%, Paraplegia 14%, ASIA D (incomplete) 57%, Other/ LOI not applicable 3.5%

We evaluate the quality of services provided in our programs in multiple ways on an ongoing basis to assess how we are doing and to identify opportunities for further improvement.

We are proud of the achievements of our SCI Center and are committed to continued excellence!

Improvement in Function:  While the extent of functional improvement in an individual person served depends on many factors, including the level and completeness of spinal cord injury, our 3-year aggregate data demonstrates higher average gains in motor function, achieved in a shorter time, than national benchmarks using the Functional Independence Measure or FIM. Functional gain per day of rehabilitation (FIM Efficiency) is also higher than the national benchmark. Length of the inpatient rehabilitation program averages about 6 weeks, although it can vary from a few days to a few months based on identified needs and goals. We aim to optimize discharges to community living following rehabilitation.

Perceived Overall Value: Veterans who complete our comprehensive inpatient SCI/D rehabilitation program, rate it favorably on the uSPEQ Consumer Experience Survey compared to VA and private sector benchmarks for SCI rehabilitation programs. Percent positive responses are well over 90% for all items assessed for “overall value” (“Would refer to a friend”, “Service met my expectations”, “Felt safe here”, “Service enabled me to do things better”, “Met my needs”, and “Overall Satisfaction with the program”)
**Outpatient, Home Care and Telehealth Programs**

We offer a comprehensive range of services in our outpatient, home care, and telehealth programs.

**Whole Health:** The whole health model is a holistic look at the many areas of life that can affect your health - your work, relationships, diet, sleep patterns, and more. The Components of Health and Well-Being model, shown in the adjacent figure, lays out eight key areas of self-care. Improving one area can help all other aspects of your life, including your overall physical, mental, and spiritual health and well-being. Your diet, exercise routine, sleep patterns, work environment, relationships are all connected, and they are all important parts of what you can do to improve your own self-care.

We are always striving to offer additional in-person and virtual options for Whole Health (WH) and creative ways to enhance offerings to address all components of the WH Health and Well-Being model, including: Working Your Body, Surroundings, Personal Development, Food and Drink, Recharge, Family Friends & Coworkers, Spirit & Soul, and Power of the Mind. The most common Whole Health-related offerings utilized in our program have included: WH Education, Yoga, PHI (Personal Health Inventory), Coaching, WH Smart Goals, Meditation, Guided Imagery, MAP (Mission, Aspiration, Purpose), Moving the Body, and Tai Chi, adapted for persons with spinal cord injuries and disorders as needed.

**Outpatient Rehabilitation for Mobility and Function:** Our outpatient rehabilitation services for mobility, activities of daily living, and assessment and training for equipment and assistive technology, have been growing.

**Chronic Pain Management:** Our outpatient pain program incorporates practical skills to manage chronic pain and overcome maladaptive behaviors and pain-related negative thoughts. A primary goal is to improve overall quality of life while reducing psychological distress. To improve access to the program, we have started offering sessions via Video Telehealth at home, in addition to in-person visits. We are also expanding complementary and integrative modalities to assist with pain management.

**Evidence-Based Supported Employment (EBSE):** EBSE is a tested and validated method for increasing competitive employment. Principles include a zero-exclusion policy regardless of severity or type of disability, rapid job search with typical contact with an employer within 30 days of referral, and attention to individual preferences. Vocational and clinical staff work together, and support continues after a job is obtained.
Adaptive Sports and Recreational Programs: We offer year-round access to a wide and ever-expanding range of adaptive sports and recreational programs to fit individual interests and preferences.

Supporting Veterans in Home and Community: Our SCI Home Care program supports the transition and health of Veterans in the home setting. It typically serves Veterans living within a 100-mile radius of the SCI Center, with the frequency and duration based on clinical need. 96 Veterans were served by SCI HC in FY 20.

Supporting Caregivers: To provide the best care to our Veterans, we also need to pay attention to our Veterans’ caregivers. We systematically assess and address caregiver burden. We administer a brief version of the Zarit Burden Interview (ZBI) to caregivers who accompany Veterans at their SCI annual evaluation, those followed by Home Care, and reach others through mailings. Caregivers with moderate or severe burden score are offered appropriate interventions, targeted to individual needs and situation.

Clinical Video Telehealth (CVT): We have a very active Clinical Video Telehealth program, including virtual visits to the home. CVT provides support during transition to home after hospitalization, virtual appointments with specialists and providers from multiple disciplines, and can provide access to many other resources. With incorporation of new and emerging technologies, we plan even further expansion based on our initial experience and successes.

II. Excellence in Patient Experience

Consistently high scores in standardized satisfaction surveys for our inpatient, outpatient, and home-care programs validate the overwhelmingly positive feedback we receive from Veterans, families, and stakeholders. Ongoing initiatives to further enhance patient experience include an enhanced attention to Whole Health and staff training in communication that engages Veterans as full partners in their care.

III. Excellence in Financial Stewardship

We have implemented several measures to minimize waste and inefficiencies that don’t add value to persons served in our programs. Examples include significantly reduced missed opportunities from no-shows or cancelled appointments, and actions to optimize timely delivery of durable medical equipment.

IV. Excellence in Workforce

Our SCI staff consistently report amongst the highest overall satisfaction in the anonymous and confidential VA All Employee Survey and score significantly higher on measures of employee engagement. We have measures to fully harness staff commitment and creativity and develop their capacity as engaged work teams for continual improvement of their daily work.
V. Excellence in Service to Our Communities

We perform many activities to support SCI-related education, research, and advocacy. We are the primary training site for the Harvard Medical School SCI fellowship program and the national hub-site for the VA Advanced Fellowship in SCI Medicine. We educate residents, nursing, psychology, social work and physical therapy trainees. Our staff performs cutting-edge research and regularly publishes peer-reviewed research, books and book chapters, and presents at national meetings.

ELIGIBILITY, REFERRAL, FEES AND PAYER SOURCE INFORMATION:

We serve Veterans and Active Duty Service Members with spinal cord injuries and disorders. Individuals are admitted if they meet eligibility criteria per established VA policy and are 18 years of age or older.

Referrals
A referral may be initiated by the individual, family, physician, social worker or case manager.

Fees and Payer Sources
Thanks to the Caregiver and Veterans Omnibus Health Services Act of 2010, Veterans with a spinal cord injury now qualify for an exemption from inpatient, outpatient and prescription copayments. If you have questions about your classification or service-connected disability, ask to speak to a social worker or benefits officer.

Private insurance maybe billed if the Veteran is insured, however the Veteran will not receive a bill for anything insurance does not cover.

CONTACT INFORMATION:

The SCI admissions office at the West Roxbury Campus of the VA Boston Healthcare System is open Monday-Friday, 8:00 a.m. to 4:30 p.m., room A-204. Telephone (857) 203-6574, Fax (857) 203-5553.

For acute referrals after hours, call the West Roxbury Campus at (617) 323-7700 and ask the operator to page the on-call SCI physician.

Tours can be arranged through the SCI Inpatient Social Worker at 857-203-6126.

Our website is www.boston.va.gov/services/spinal_cord_injury.asp