SPINAL CORD INJURY AND DISORDERS (SCI/D) SYSTEM OF CARE

1. REASON FOR ISSUE. This Veterans Health Administration (VHA) Handbook defines the SCI/D System of Care with services that are Veteran centric, results oriented, and forward looking.

2. SUMMARY OF MAJOR CHANGES. The major changes include a more comprehensive description of VHA's SCI/D Hub and Spoke System of Care.

3. RELATED ISSUES. VHA Directive 1176.

4. RESPONSIBLE OFFICE. The Chief Consultant, SCI/D Services, is responsible for the contents of this VHA Handbook. Questions may be referred to the Chief Consultant, SCI/D Services at 206-768-5401. Facsimile transmissions may be sent to 206-768-5258.

5. RESCISSIONS. VHA Handbook 1176.1, Spinal Cord Injury and Disorders System of Care Procedures, dated May 2, 2005, is rescinded.

6. RECERTIFICATION. This VHA Handbook is scheduled for recertification on or before the last working day of February 2016.

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Under Secretary for Health

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SPINAL CORD INJURY AND DISORDERS (SCI/D) SYSTEM OF CARE

1. PURPOSE

This Veterans Health Administration (VHA) Handbook defines procedures for the operation of the Spinal Cord Injury and Disorders (SCI/D) System of Care.

2. BACKGROUND AND AUTHORITY

a. Optimal health care services for Veterans with SCI/D emphasize the importance of rehabilitation and a comprehensive continuum of health care. VHA procedures described in this Handbook reflect the longstanding innovations and policy used to systematize the SCI/D Hub and Spoke continuum of care in VHA. This System of Care requires a full interdisciplinary team of SCI/D experts in the SCI Centers (hubs), and designated SCI Support Clinics or SCI primary care teams (spokes) at all other Department of Veterans Affairs (VA) medical centers for care of this population. The majority of symptoms and problems that follow SCI/D are chronic; therefore, the SCI/D System of Care focuses on self-management as a fundamental aspect of prevention and treatment plans. Self-management behaviors are used to prevent additional problems and to maintain function.

b. The authority for the SCI/D System of Care is title 38, United States Code (U.S.C.), Section § 7301, Subparagraph B.

3. SCOPE

a. The mission of the VHA SCI/D System of Care is to support, promote, and maintain the health, independence, quality of life, and productivity of individuals with SCI/D throughout their lives. This is accomplished through:

(1) The efficient delivery of rehabilitation;

(2) Sustaining medical and surgical care;

(3) Patient and family education;

(4) Psychological, social, and vocational care;

(5) Research;

(6) Education; and

(7) Professional training in the continuum of care for persons with SCI/D. ***NOTE:*** *Quality of care is monitored through multiple mechanisms (see subpar. 13. n.).*

4. NATIONAL SCI/D SYSTEM OF CARE

The VA's SCI/D Hub and Spoke System of Care is an integrated service delivery network. SCI Centers (hub) provide primary and specialty care for Veterans with SCI/D. All VA medical centers without an SCI Center (spoke) have responsibility for the provision of basic medical

care, SCI/D primary care by designated and trained providers, and emergent medical care for Veterans with SCI/D. Designated catchment areas (See App. A) reflect longstanding linkages and are used for the transfer of Veterans from a local VA or community hospital to the SCI Center for care in accordance with VA travel regulations. For descriptive purposes in this Handbook, the terms SCI and SCI/D are used interchangeably.

5. RESPONSIBILITIES OF THE UNDER SECRETARY FOR HEALTH

Any proposed change to the SCI/D System of Care requires the approval of the Under Secretary for Health, including, but not limited to changes in: mission, staffing, bed level, reduction of clinical services, reorganization, and clinical staff.

6. RESPONSIBILITIES OF THE CHIEF CONSULTANT, SCI/D SERVICES

The Chief Consultant, SCI/D is responsible for:

a. Providing national program leadership for SCI/D health care and rehabilitation services;

b. Reviewing significant proposed changes with the Chief Patient Care Services Officer (11), Principal Deputy Under Secretary for Health (10A), and relevant others; and

c. Forwarding recommendations to the Under Secretary for Health.

NOTE: *The Paralyzed Veterans of America (PVA) is given the opportunity to comment on significant changes to the program.*

7. RESPONSIBILITIES OF THE VETERANS INTEGRATED SERVICES NETWORK (VISN) DIRECTOR

The VISN Director, or designee, provides a critical juncture in implementation and support of the national SCI/D System of Care, balancing needs for local responsiveness with timely and full access with national consistency and coordination. The VISN Director is responsible for:

a. Supporting all components and services in the SCI/D system and continuum of care described in this Handbook;

b. Facilitating smooth and efficient transfers for care between VA facilities (See subpar. 13. d.);

c. Providing and facilitating necessary communication, resources, and quality improvement efforts to maintain expertise and quality services;

d. Facilitating travel and access to SCI Center services in the designated SCI catchment area, in accordance with national policy for inter-facility transfers, established criteria for travel eligibility, and use of hardship criteria, as appropriate.

e. Facilitating VHA required continuing education of VHA health care providers about the SCI/D System of Care and SCI/D health care issues; and

f. Submitting proposed changes to the SCI/D System of Care for review and approval through the SCI/D Services Chief Consultant (11S), Chief Patient Care Services Officer (11), Deputy Under Secretary for Health for Operations and Management (10N), and Principal Deputy Under Secretary for Health (10A) before forwarding to the Under Secretary for Health for approval.

8. SCI/D POPULATION SERVED

a. VHA's SCI/D System of Care provides a full range of care for all enrolled Veterans who have sustained a spinal cord injury or have a stable neurologic impairment of the spinal cord. This includes:

(1) All traumatic spinal cord injuries due to such events as motor vehicle accidents, falls, and acts of violence; and

(2) Atraumatic, non-progressive etiologies of spinal cord disorders.

b. The following principles and conditions describe the population served.

(1) The neurologic condition is stable (i.e., not progressive or deteriorating over time).

(2) The primary problem is related to a spinal cord disorder as opposed to brain or peripheral nerve disorder.

(3) The resultant sequelae are clinically and functionally significant, thereby resulting in impairments of mobility, activities of daily living, and/or visceral function (e.g., neurogenic bladder, neurogenic bowel).

(4) Any level of the spinal cord, conus medullaris, or cauda equina is involved.

c. Illustrative examples of the population served are Veterans who have:

(1) Benign spinal cord or vertebral column neoplasms that result in significant spinal cord dysfunction.

(2) Multiple sclerosis with evidence of primary spinal cord involvement and minimal cognitive, swallowing, movement disorders, and/or visual impairments (which are typically best addressed by the Neurology and Rehabilitation Medicine Services).

(3) Myelopathy secondary to herniated nucleus pulposus, spinal stenosis, or other vertebral column degenerative changes if sequelae include significant mobility, activities of daily living, and visceral/autonomic deficits (e.g., neurogenic bladder).

(4) Arterio-venous malformation that results in myelopathy.

(5) Epidural abscess that results in spinal cord dysfunction.

(6) Any other vascular, inflammatory, or infectious etiology that results in significant myelopathy.

9. EXCEPTIONS AND QUALIFIERS TO SCI/D POPULATION SERVED

Although the clinical presentation may be similar in appearance to an SCI/D, Veterans with the following pathologic entities are not routinely admitted to SCI Centers:

a. Quadriparesis or paraparesis due to intracranial or peripheral nerve disorders.

b. Conversion disorder and/or hysteria manifested as paraplegia or tetraplegia.

c. Multiple sclerosis that is progressive, in active relapse, and/or with extensive cognitive, swallowing, and visual impairments. ***NOTE:*** *The delivery of services for Veterans with multiple sclerosis is the primary responsibility of the National Director of Neurology and shared by the Neurology, Rehabilitation Medicine, Primary Care, and SCI Services.*

d. Veterans with diagnoses that do not affect the spinal cord.

10. CONSULTATIVE CARE

When the SCI staff has particular, specialized knowledge (such as training in bowel care and wound care) that is needed to provide quality care to Veterans, the SCI staff may provide consultation to a treating provider outside of the SCI/D System of Care. ***NOTE:*** *The decision to provide consultation is at the discretion of the Chief, SCI Service.* ***NOTE:*** *Veterans with other etiologies that result in spinal cord dysfunction (e.g., intraspinal malignancy) may be accepted by the SCI Chief on a case-by-case basis for initial rehabilitation with follow-up consultation to the patient's non-SCI primary provider.*

11. SCI/D HUB AND SPOKE SYSTEM OF CARE

The SCI/D System of Care consists of an integrated network of care based on the longstanding hub and spoke model. SCI Centers serve as the hub. Locally accessible SCI/D primary care is provided at other VA facilities (spokes) within specified catchment areas (see App. A). These long-standing designated catchment areas are generally used for the transfer of Veterans from a local VA or community hospital to the SCI Center (hub) for care. However, in the interest of preserving continuity of care, Veterans with an existing relationship and treatment history at an SCI Center that is outside the designated catchment area will have their preferences respected by the referring and accepting facilities in accordance with VA travel regulations. All VA medical centers have responsibility for the provision of basic medical care, primary care, and emergent medical care for Veterans with SCI/D.

12. COMMUNICATION

The structural elements of the System of Care are linked by ongoing communication among providers to form an integrated network of care, meeting the needs of Veterans with SCI/D.

a. Communication between providers at SCI Centers and non-SCI Center facilities must take place upon admission, clinical need, transfer, or discharge of any patient.

b. The SCI Coordinator must notify the Chief, SCI Service, or designee, of admissions and discharges to non-SCI Center facilities using the SCD Registry's or Spinal Cord Injury and Disorders Outcomes (SCIDO) automated alert system or other appropriate mechanism.

c. The Chief, SCI Service, or designee, must notify the SCI Coordinator of discharges from the SCI Center, using the SCD Registry's or SCIDO's automated alert system or other appropriate mechanism.

d. Prompt communication between providers at SCI Centers and non-SCI Centers is vital to ensuring VA's ability to provide quality care to Veterans with SCI/D. Individual Veteran tracking and reporting by the SCI Coordinator, as Veterans enter and exit VA's medical and long-term care systems, is fundamental to the delivery of quality care and to ensuring that appropriate follow-up appointments are scheduled and provided in a timely manner.

13. SCI CENTERS

a. SCI Center Programs and Organization

(1) **Designated SCI Centers.** Designated SCI Centers provide SCI/D primary care and SCI/D specialty care with a full continuum of acute stabilization, acute rehabilitation, subacute rehabilitation, medical and surgical care, ventilator management and weaning, respite care, preventive services, sustaining health care, SCI Home Care (SCI-HC), and long-term care services consistent with VHA policies. Sustaining health care is the spectrum of services after initial rehabilitation. Veterans living in the geographic area of an SCI Center generally receive their SCI/D primary care services from a primary care provider in the SCI Service at the SCI Center.

(2) **Approval of SCI Centers.** SCI Centers are approved by the Under Secretary for Health and organized as an independent service line reporting to the Chief of Staff, Chief Medical Officer, or equivalent, at the medical center. Each SCI Center is organized with a catchment area of VA medical centers that refer to that SCI Center (see App. A). The establishment of a new SCI Center must follow VA's physical plant, staffing, and resource requirements, and must be located at VA medical centers that are capable of providing complete tertiary care. ***NOTE:*** *Uniform Federal Accessibility Standards and the Office of Facilities Management Design Guides are used in construction of all new sites. VA and PVA have an agreement specifying that PVA is offered involvement in all major, minor, and non-recurring SCI/D projects.*

(3) **SCI Long-Term Care Centers**. Designated SCI Long-Term Care (LTC) Centers provide primary care and SCI/D specialty care within their focus on sustaining health and LTC services. Veterans living in the geographic area of a designated SCI LTC Center often receive their SCI/D primary care and LTC services at the SCI LTC Center through SCI Services. ***NOTE:*** *Uniform Federal Accessibility Standards and the Office of Facilities Management Design Guides are used in construction of all new sites. VA and PVA have an agreement specifying that PVA is offered involvement in all major, minor, and non-recurring SCI/D projects.*

b. **Scope of SCI Center Services**

(1) **Scope.** The scope of SCI Center services addresses the unique aspects of delivering primary care, specialty health care, and rehabilitation services to individuals with SCI/D
.

(2) **Services.** The SCI Centers provide the following services in an integrated fashion: orthotics, prosthetics, sensory aids, assistive technology, videofluoroscopic studies of swallowing, pulmonary function tests, chronic pain management, gynecology, mental health, environmental modifications, peer counseling, reproductive assessment, substance abuse treatment or rehabilitation, swallowing evaluation and training, geriatrics and gerontology, medical nutrition therapy, rehabilitation engineering, speech and language pathology, dental services, and services to address parenting issues.

c. **Admission of Active Duty Service Members (ADSM)**

(1) **Memorandum of Agreement (MOA)**. A "Memorandum of Agreement between the Department of Veterans Affairs (VA) and the Department of Defense (DOD) for Medical Treatment Provided to Active Duty Service Members (ADSM) with Spinal Cord Injury, Traumatic Brain Injury, Blindness, or Polytraumatic Injuries" is in effect. The objective is to provide the highest quality care for ADSM who sustain SCI/D. ***NOTE:*** *Refer to the current VA-DOD MOA for criteria for safe and effective transfer, operational specifics, and expectations.*

(a) When the patient is ready for transfer, arrangements are to be effected immediately.

(b) VA will provide sufficient medical information and documentation for the designated DOD Military Treatment Facility (MTF) to conduct a medical evaluation board for disability determination.

(c) The SCI Center staff will coordinate with community hospitals so that VA-eligible DOD patients with SCI/D, who are ready for transfer to another hospital, are transported directly from a community hospital to a VA SCI Center.

(d) Certain VA medical centers are currently designated as capable of providing the sophisticated care and intensive rehabilitation required by recently spinal cord injured military service personnel. ***NOTE:*** *These centers are designated in Appendix C.*

(e) VA SCI Centers will assist DOD MTFs in selecting the most appropriate participating VA SCI Center to provide treatment to prospective ADSMs under the VA-DOD MOA. Consideration will be given to selecting a VA SCI Center closest to the ADSM's home of record or other location requested by the ADSM (guardian, conservator, or designee), subject to availability of beds at the medical center and approval by Tricare Management Activity (TMA). If the preferred or approved VA SCI Center is unable to accept the patient, DOD, in coordination with VA, will assist in locating an appropriate VA medical center for placement of the patient. ***NOTE:*** *The Chief Consultant, SCI/D Services (11S), VHA Central Office, 810 Vermont Avenue, NW, Washington, DC, 20420, will assist when necessary.*

(f) ADSMs with SCI/D who are transferred to VA SCI Centers must be reported quarterly through SCI Services in the quarterly new injury report.

d. **Admission of Veterans with SCI/D**

(1) The Chief, SCI Service, or designee, is responsible for the admission of eligible Veterans with SCI/D. Admissions must be predicated on mission, scope of services, evaluation, and/or determination of diagnostic etiology (see pars. 8, 9, and 10), and the medical and functional requirements of the patient. SCI/D designated beds are captured under bed section 22 for location and treating specialty purposes. ***NOTE:*** *Non-SCI utilization criteria are not to be used.*

(2) It is the responsibility of the VA medical center first contacted for admission to proceed with arrangements for transferring the Veteran to the nearest appropriate SCI Center. When the first VA medical center contacted does not have an SCI Center, arrangements must be made by the contacted VA medical center to transfer the patient directly to an accepting SCI Center. Admission to the local VA medical center may take place, but it is not a prerequisite for coordinating arrangements for the Veteran's admission to the SCI Center.

(3) The SCI Coordinator, or referring physician, must provide a patient history and physical examination note, pertinent progress notes, and physician interim or discharge summary for review by the SCI Center considering the patient for transfer. An electronic consultation should be sent to document, request, and track the request for transfer.

(4) Agreement on the transfer or admission date must be coordinated by the SCI admitting physician and referring SCI/D Support Clinic or SCI/D PCT Coordinator, or by the SCI admitting physician and the community provider. ***NOTE:*** *The logistics and timing of the transfer are assessed based upon physician-to-physician contact.*

(5) Activation of available SCI beds not currently staffed will be facilitated to accommodate admissions if the census and referrals to the SCI Center exceed the required staffed bed numbers. If an eligible Veteran with SCI/D from the catchment area is in need of acute or sustaining SCI/D care and cannot be accepted for admission at the SCI Center to which the Veteran is normally referred, the Chief of that SCI Center is responsible for:

(a) Making arrangements for care at another SCI Center;

(b) Communicating these arrangements to the patient or the patient's representative;

(c) Consultation with the patient's attending physician during the interim; and

(d) Tracking delays in admissions using a waiting list of pending admissions.

(6) Although a Veteran may apply to any SCI Center, emphasis is placed upon addressing the Veteran's needs in the SCI catchment area. However, in the interests of preserving continuity of care and respecting Veteran preference, Veterans with an existing relationship and treatment history at an SCI Center outside the designated catchment area will continue to receive care at that medical center. However, travel benefits are only to the nearest SCI Center. ***NOTE:*** *Other*

factors are considered in addressing the needs of SCI/D applicants, such as the urgency of the patient's medical need, the availability of resources, eligibility, and entitlement priorities.

(7) Veterans with acute onset SCI/D are transferred immediately to an SCI Center. Veterans with SCI/D admitted to any VA medical center are to be transferred to the SCI Center in 72 hours for acute medical and/or surgical conditions and non-self-limiting conditions. The SCI Coordinator at facilities without an SCI Center must communicate with the SCI Chief as frequently as the patient's status indicates. Such patients with acute care needs must be evaluated as needed on a daily basis by personnel from the SCI/D Support Clinic or SCI/D PCT.

(8) Veterans with acute care issues in a VA medical center with an SCI Center are admitted directly to the SCI Center unless the Chief, SCI Service, approves admission to an alternate unit. Patients are to be located on the SCI unit, unless there is a need for an intensive care unit, nursing home care unit, or an exceptional clinical circumstance (which must be approved by the Chief, SCI Service). Any Veteran with SCI/D not on the SCI unit must be evaluated on a daily basis, as needed, as needed, by an SCI physician and SCI nurse; they must document the assessment and clinical recommendations.

(9) The special needs of female Veterans with SCI/D must be met through provisions for privacy (private rooms or shared with other females), appropriate supplies, apparel, and access to appropriate health care services as outlined by the Women Veterans Health Strategic Health Care Group. The designated SCI primary care providers provide or arrange for timely women's health care and gender specific screenings during the Veteran's comprehensive evaluation. When the SCI primary care provider or Veteran chooses to have these screenings done by Women's Health Care, pre-arrangements for this care during the annual evaluation (or when issues arise) will be made with Women's Health Care or by arrangements with Women's Health Care to provide the services in the SCI/D examination rooms, or through fee basis to an appropriately-trained provider with accessible health care office space and equipment.

e. **Admission of Non-Veteran SCI/D Patients.** The following information has been developed for the admission of non-Veterans, other than active duty military personnel, and is consistent with the contracting authorities. ***NOTE:*** *This does not apply to VA SCI services furnished under a pre-approved sharing agreement.*

(1) Admission must be considered necessary for humanitarian emergency reasons because appropriate specialized facilities are not available in the area. Patients must meet the admission criteria as outlined in paragraph 8 of this Handbook.

(2) Requests for admission are to be made to the nearest Chief, SCI Service, as soon as possible, post-injury. The Chief, SCI Service, approves requests for admission of acute non-Veteran SCI/D patients. Admission is to be accomplished within 1 week post-injury and before the beginning of acute rehabilitation.

(3) Management at a VA SCI Center makes a critical difference in the individual's outcome.

(4) The cost of VA care, including prosthetic and orthotic devices and the cost of transportation to and from the SCI Center, is not borne by VA. Charges for SCI services are made according to the cost accounting or billing methods currently in use.

(5) Length of stay in a VA SCI Center is limited to a maximum of 3 months. The VA medical center Director may authorize an extension of the hospitalization, if medically necessary, and if requested by the third party payer. Every effort must be made to rehabilitate the patient for discharge to the community, or other appropriate non-VA resource.

(6) Those applicants who are not yet hospitalized, and in need of emergency care (where the absence of immediate care would be life threatening to the patient) are to be given the highest priority for treatment and consideration for admission.

(7) The quality of care available to eligible Veterans on the SCI Unit must not be diminished, and the admission of eligible Veterans must not be delayed because of the hospitalization of a non-Veteran.

f. **Independent Living Programs (ILPs)**. ILPs are an important link in the transition of the Veteran with SCI/D from the medical center to community life. ILPs are designed to promote life in the least restrictive community environment possible, based on a choice of acceptable alternatives that minimize the Veteran's reliance on others. The Chief, SCI Service appoints a social worker to serve as the ILP Coordinator. All interdisciplinary SCI team members and the ILP Coordinator serve as advocates by educating and ensuring that the Veteran with SCI/D receives education in attendant management and maximization of function to achieve community living whenever possible.

g. **Urodynamics Laboratory**

(1) The Chief, SCI Service and/or Chief, Urology Service, is responsible for:

(a) The planning and administration of the urodynamic laboratory;

(b) Providing consultation to other services requesting urodynamic studies;

(c) Ensuring the radiology department routinely evaluates the radiographic equipment;

(d) Ensuring the staff performing fluoroscopic procedures wear film badges;

(e) Ensuring that the rates of post-study infections and autonomic dysreflexia are tracked; and

(f) Ensuring the clinical and laboratory records obtained from all examinations are included in the patient's medical record.

(2) All patients must be offered a complete urodynamics study during the initial admission. Non-invasive tests are to be used before urodynamic studies, where feasible.

(a) Urodynamic assessment includes a cystometrogram (CMG) with simultaneous sphincteric pressure measurement under fluoroscopy and/or rectal sonography.

(b) If concurrent fluoroscopy is not available, a separate voiding cystourethrogram (VCU) must be done.

(c) Urodynamic studies are to be done 3 to 6 months after injury, or after return of bladder activity, whichever comes first (urodynamic studies need to be done following stabilization of bladder function, which is typically, completely stable by 6-18 months post-injury).

(d) Only competent personnel knowledgeable in urodynamics, urodynamic instrumentation, and technical analysis may perform and/or assist in the study.

(e) A physician competent in urodynamics and/or uroradiology must be available for consultation during the study.

(f) Appropriate emergency support and equipment must be available to the urodynamics suite.

h. **Sexuality and Fertility Counseling**. Both male and female Veterans with SCI/D must be offered the opportunity to undergo sexuality and fertility counseling by means of formal urological and psychological consultation. The spouse, or significant other, may be invited to be involved in the process at the discretion of the Veteran. Proper sexuality counseling should be facilitated by use of the Clinical Practice Guideline on Sexuality produced by the Consortium of Spinal Cord Medicine and the corresponding Consumer Guide.

i. **SCI Comprehensive Preventive Health Evaluation**

(1) **Critical Functions.** Critical functions of the SCI Comprehensive Preventive Health Evaluation include health promotion, prevention, early identification and treatment of complications related to lifestyle, aging, and living with a SCI/D. Annual comprehensive preventive health evaluations must be offered at SCI Centers by a multidisciplinary team trained in SCI/D care.

(2) **Evaluation Scope.** The scope of the evaluation is comprehensive and includes:

(a) Elements of health promotion and disease prevention defined for the general Veteran, and

(b) SCI/D specific elements. ***NOTE:*** *Health promotion and disease prevention elements are addressed by VHA, and are not listed here due to their periodic revision. As standards of care are developed or modified for the general Veteran population, they will be implemented in the SCI/D System of Care in the same manner as in other VA primary care sites.*

(3) **Evaluation Elements.** The SCI/D specific evaluation includes the following elements:

(a) Medical History and Physical Examination. In addition to the standard medical history and physical examination, the SCI/D specific evaluation must minimally include evaluation of: integumentary (e.g. pressure ulcers), cardiovascular (e.g. postural hypotension, autonomic dysreflexia, cardiovascular risk factors), pulmonary (e.g. impaired cough, pneumonia, and respiratory failure), gastrointestinal (e.g., neurogenic bowel), endocrine (e.g., low testosterone), genitourinary (e.g. neurogenic bladder), metabolic (e.g., diabetes), musculoskeletal, and neurologic systems. The risk for secondary problems and co-morbid conditions following SCI/D is considerable in many of these systems. For example, the integumentary system undergoes anatomical and physiologic changes after SCI/D resulting in increased risk for pressure ulcers. The risk of cardiovascular disease is considerable since Veterans with SCI/D are paralyzed and less able to participate in physical activities. The physiology of the urinary and gastrointestinal systems are altered thereby resulting in high risks of complications, such as the development of stones, urinary tract infections, incontinence, and obstipation.

(b) Integumentary System. The risk for pressure ulcer development and recurrence is high in Veterans with SCI/D. All Veterans with impaired sensation or mobility must have an annual comprehensive assessment of risk factors, a review of prevention strategies, a thorough inspection of skin/body wall, and recommendations for pressure ulcer prevention shared with the Veteran (i.e., a pressure ulcer prevention plan).

(c) Cardiovascular Screening. Cardiovascular screening is particularly important in the SCI/D population since persons with SCI/D often have increased risk factors for cardiovascular disease (e.g., inactivity, obesity, hypercholesterolemia, tobacco use, hypertension). In higher level spinal cord injuries (i.e., tetraplegia) coronary artery disease, angina, and cardiac ischemia may not manifest with chest pain due to sensory impairment, and lack of intact cardiac afferents (particularly in injuries above the neurological level of T2). Cardiovascular risk factors are frequently present in younger adults with SCI/D as compared with the general population (e.g., inactivity as a result of paralysis, early onset of diabetes mellitus).

1. Cardiovascular risk factor assessment should include hypertension screening with annual blood pressure measurement. A fasting lipoprotein profile should be obtained regularly for all Veterans with SCI/D. Since mobility deficits, lack of physical activity, and obesity are common following SCI/D, screening for dyslipidemia may be more frequent than VA/DOD and National Cholesterol Education Program guidelines. At a minimum, Veterans with SCI/D, normal lipid profiles, and less than three non-lipid cardiovascular (CV) risk factors (non-lipid CV risk factors, age 35 years or older for males, age 45 years or older for females, family history of premature cardiovascular disease, hypertension, smoking, diabetes mellitus, abdominal obesity, male gender) should be screened once every 5 years. Veterans with SCI/D with abnormal values and/or more than three non-lipid cardiovascular risk factors warrant annual testing, and should be counseled and treated in accordance with VA/DOD national guidelines.

2. Evaluation and treatment of Veterans with SCI/D who have ischemic heart disease should follow VA/DOD Clinical Practice Guidelines. In Veterans with tetraplegia, symptoms and signs of ischemic heart disease may be subtle or absent. Cardiac ischemia may not result in chest pain. A 12-lead electrocardiogram should be obtained in all individuals with tetraplegia age 35 years and older. Electrocardiogram is also mandatory for all symptomatic individuals or if there is any question of cardiac disease.

(d) Autonomic Dysreflexia. Evaluation, education, and treatment for autonomic dysreflexia should be performed as clinically indicated following the recommendations of the clinical practice guideline, Acute Management of Autonomic Dysreflexia, Consortium for Spinal Cord Medicine. This condition can represent a medical emergency; recognizing and treating the earliest signs and symptoms can avoid dangerous sequelae of severely elevated blood pressure in Veterans with SCI/D with neurologic injuries at T6 and higher. The annual evaluation offers a time to review problems with autonomic dysreflexia, patient knowledge, and ensuring that medications for acute treatment are available and renewed.

(e) Orthostatic hypotension. Many Veterans with SCI/D have symptomatic orthostatic hypotension. Assessment, education, and treatment may include recommendations for change in fluid intake, compressive stockings, abdominal binder, and medications.

(f) Respiratory Complications. Respiratory complications are one of the leading causes of death and morbidity when living with SCI/D. Evaluation and treatment should follow the clinical practice guideline Respiratory Management following SCI, Consortium for Spinal Cord Medicine.

1. Pulmonary function tests and chest x-ray should be obtained when clinically indicated and in high-risk patients (e.g., high tetraplegia, ventilator dependency, phrenic pacers, asthma, Chronic Obstructive Pulmonary Disease (COPD).

2. The prevalence of sleep-disordered breathing in persons with chronic tetraplegia is 25 to 40 percent. The prevalence is likely elevated in persons with chronic paraplegia as well as acute SCI/D. Patients with signs and symptoms of sleep disordered breathing, such as severe snoring or excessive daytime sleepiness without another cause, must undergo diagnostic evaluation. Full polysomnography with electroencephalographic monitoring is the most sensitive test for diagnosing sleep disordered breathing. Nocturnal pulse oximetry may be adequate for detecting severe cases; however, a normal study does not rule out sleep disordered breathing, particularly if performed with a standard oximeter.

3. Annual seasonal influenza vaccine is recommended for all persons with SCI/D, unless there are specific contraindications. For those patients who will not be seen during the influenza vaccination season, every effort needs to be made to contact patients and inform them about resources in the community, and document receipt of vaccination in the medical record. H1N1 influenza vaccination will follow evolving recommendations.

4. Pneumococcal vaccination is recommended for all persons with SCI/D, unless there are specific contraindications. A single revaccination is recommended if more than 5 years have elapsed since receipt of the first vaccination. The recommendations for revaccination may change and need to follow recommendations of the Advisory Committee on Immunization Practices (ACIP).

(g) Gastrointestinal system. There may be many gastrointestinal complications that result from SCI/D including neurogenic bowel, peptic ulcer disease, impaction, diarrhea, and incontinence. Many of these complications may result in hospitalization or can be life-

threatening. Complaints of symptoms related to gastrointestinal dysfunction are some of the most common following SCI/D, and they result in a negative impact on quality of life.

1. Neurogenic bowel. Evaluation, education, and treatment of neurogenic bowel needs to follow the clinical practice guideline, Neurogenic Bowel Management in Adults with SCI, Consortium for Spinal Cord Medicine. A screening assessment of neurogenic bowel function and related problems needs to be done annually.

2. People with SCI/D have an increased prevalence of cholelithiasis. Diagnostic tests to visualize the gall bladder (abdominal ultrasound or computed tomography) need to be obtained in Veterans with SCI/D who have altered, or no sensation overlying the gall bladder (approximately the T8 neurologic level) at least once every 5 years or more frequently as clinically indicated. If gall bladder afferents and/or afferents in the overlying peritoneum are impaired, symptoms of acute cholecystitis may be subtle or absent.

(h) Genitourinary system. Some of the most common complications that follow SCI/D are related to a neurogenic bladder. Assessment, education, and treatment of the neurogenic bladder should follow the clinical practice guideline, Bladder Management for Adults with Spinal Cord Injury, Consortium for Spinal Cord Medicine. Complex and recurrent problems need to be assessed and treated in the SCI Centers (e.g., assessment of hydronephrosis and nephrolithiasis: diagnostic tests such as cystoscopy and urodynamics).

1. The annual evaluation of the genitourinary system needs to include:

a. Urinalysis, culture and sensitivity;

b. Serum creatinine and Blood Urea Nitrogen (BUN); and

c. Annual assessment of upper tract function should include an anatomical test (e.g., abdominal ultrasound) and/or an evaluation of function (e.g., creatinine clearance, renal scan). Diagnostic tests such as computed tomography (CT) and intravenous pyelogram should be ordered only when clinically indicated.

2. Indwelling catheterization may result in long-term complications such as bladder cancer. Surveillance using cystoscopy, cytology, and random bladder biopsy should be performed on a regular basis at the SCI Center.

3. Urodynamics need to be done at the SCI Center when objective information on voiding function and intravesicular pressures is needed. Indications for urodynamics includes recent onset of SCI/D, deterioration in renal function, anatomical changes in the upper tract (e.g., hydronephrosis), recurrent autonomic dysreflexia of unknown etiology, and urinary incontinence in the absence of urinary tract infection. A standard medical history and physical examination (evaluating symptoms and signs) is not sensitive in screening for high intravesicular pressures.

4. Annual digital rectal exam is recommended for all men with SCI/D at ages consistent with those recommended by the American Cancer Society, American Urological Association,

and VHA Health Promotion and Disease Prevention Programs. Annual counseling regarding the advantages and disadvantages of prostate specific antigen testing should also be discussed.

5. Each Veteran with SCI/D who uses intermittent catheterization should be offered and provided enough catheters so a new catheter can be used at each catheterization.

(i) Abnormalities of Carbohydrate and Lipid Metabolism. Abnormalities of carbohydrate and lipid metabolism are common in Veterans with SCI/D in all age groups. Annual evaluation of fasting serum glucose is recommended for all Veterans with SCI/D. Follow-up and treatment of diabetes should follow VA/DOD guidelines. Dilated eye exam in accordance with VA/DOD guidelines should be performed.

(j) Musculoskeletal Disorders. Many musculoskeletal disorders after SCI/D are common and disabling. Due to increased forces and repetition (e.g., upper limbs used for transfers and wheelchair propulsion), extreme positions (e.g., during uneven transfers), altered biomechanics (e.g., gait pattern due to weakness), and instrumentation of the spine, peripheral joint and spine pathology are common. Quantitative assessment of upper limb function and treatment should follow clinical practice guideline, Preservation of Upper Limb Function Following SCI, Consortium for Spinal Cord Medicine.

1. The evaluation of spine pain is a particular challenge in Veterans with SCI/D. A thorough history, physical examination, and if indicated, imaging studies should be performed in all persons with the new onset of, or significant changes in neck or back pain; evaluating for instrumentation problems, instability, neuropathic arthropathies, syringomyelia, radiculopathy, and spinal stenosis.

2. Osteoporosis and fracture due to decreased bone mineral content and bone mineral density have been demonstrated in persons with SCI/D. All correctable factors that exacerbate osteoporosis need to be reviewed and treated (i.e., vitamin D, calcium, hyperthyroidism, hypogonadism). Fall prevention must be reviewed and include evaluation of intrinsic factors (cognitive impairment), sedating medications, and extrinsic factors (wheelchair set-up). Other risk factors need to also be assessed and corrected (e.g., unsafe transfers, excessively zealous range of motion).

3. Seating and postural abnormalities are common after SCI/D. Screening for problems needs to be done annually. Treatment by experienced therapists in the SCI Center and use of seat mapping must be conducted when indicated.

(k) Neurologic Complications. Common neurologic complications (e.g., spasticity, pain) need to be evaluated and treated when clinically indicated. The International Standards for Neurological Classification of Spinal Cord Injury should be used and documented for patients with traumatic SCI/D during each annual evaluation for early detection of neurologic decline. An accepted, standardized assessment tool should be used to assess and document the neurologic status in Veterans with atraumatic SCI/D annually (e.g., International Standards for Neurological Classification of Spinal Cord Injury, Kurtzke Expanded Disability Status Scale for multiple sclerosis).

(l) Chronic Pain. Chronic pain following SCI/D is common. Thorough evaluation and comprehensive management should be done at initial presentation, annually, and if there is new pain or change in symptoms.

(m) Rehabilitation Functional Assessment. A rehabilitation functional assessment that includes activities of daily living (ADL), transfers, proper wheelchair pushing techniques, and other aspects of mobility needs to be performed annually.

(n) Dietary and Nutritional Assessment. An annual dietary and nutritional assessment needs to be performed annually since the SCI/D population has a higher prevalence of obesity, and disorders of carbohydrate and lipid metabolism.

(o) Review and Renewal of Medications. Review and renewal of medications and supplies must be performed annually.

(p) Dental Evaluation. A dental evaluation needs to be made available to patients with SCI/D. Follow-up care for issues identified by the evaluation, need to be provided when VHA eligibility criteria for dental services are met.

(q) Psychological, Social, and Vocational Needs. Psychological, social, and vocational needs related to vocational rehabilitation potential and/or readiness, social role participation, quality of life, behavioral health status, chemical dependency and/or use, living environment, life care planning, and attendant training needs must be evaluated annually.

(r) Review of Prosthetic Equipment. Review of prosthetic equipment needs, function, and safety must be reviewed annually.

(s) Comprehensive Preventive Health Evaluation Findings. The comprehensive preventive health evaluation findings must be documented, summarized with recommendations for follow-up care, and shared with Veterans with SCI/D.

j. **SCI Center Personnel**

(1) **Chief, Assistant Chief, or Acting Chief, SCI Service**. The position of SCI Chief is a full-time position, and no one may be appointed to this position on less than a full-time basis.

(a) Recruitment and concurrence with appointment for these positions is undertaken, with the involvement of the Chief Consultant, SCI/D Services, with consultation from appropriate Veterans service organizations. ***NOTE:*** *The Chief Consultant, SCI/D Services must approve exceptions to these criteria.*

(b) The candidate needs to meet existing VA requirements for physicians including credentialing and privileging requirements. ***NOTE:*** *Board certification in SCI Medicine is strongly encouraged. In accordance with VA qualification standards, non-citizens may be appointed to these positions if qualified United States citizens are not available.* The candidate needs to:

1. Have demonstrable clinical and administrative knowledge and experience in SCI/D medicine enabling the candidate to successfully direct an SCI Service, and to have completed either: an SCI fellowship training, or equivalent training in the care of persons with SCI/D.

2. Present evidence or formal training or proven competence in leadership, administration, quality improvement, and risk management (e.g., executive medicine course, accrediting organizations) for the position of Chief.

3. Present evidence of interest and involvement in research and teaching.

4. Qualify for a faculty appointment if the medical center is affiliated with a university.

5. Be aware that the Chief, SCI/D has input into the annual performance evaluation of each SCI Staff and other staff assigned to SCI Service.

6. Provide frequent contact and outreach to the facilities in the SCI catchment area for educational, consultative, advisory, and broad clinical oversight purposes.

(2) **Professional Staff Assigned to SCI Service**

(a) All key staff, such as nurse manager, clinical nurse specialist, psychologist, social worker, and therapists must be assigned and dedicated to the SCI Service by the respective supervisors in consultation and with the approval of the Chief, SCI Service. All SCI staff are responsible to the Chief, SCI Service. Rotations and assignments recommended by supervisors outside of the SCI Service line must have the concurrence of the Chief, SCI Service.

(b) In each SCI Center the Veteran is served by a team. The membership of the team is determined by the individual's needs, assessment, planning process, predicted outcomes, medical needs, and rehabilitation needs.

(c) The nurse manager and clinical nurse specialist for SCI must have SCI nursing and rehabilitation experience.

(d) Individual team members provide services consistent with state practice acts, licensure requirements, registration requirements, certification requirements, requirements of their educational degrees, professional training to maintain established competency levels, on-the-job training requirements, and professional standards of practice.

(e) The SCI interdisciplinary team composition must have adequate staffing to efficiently meet Veterans' identified needs and all facets of the SCI Program. The SCI Service needs to establish and document a system for determining the types and number of personnel needed by each discipline based on the needs of the patients and efficient achievement of projected outcomes. Present VHA policy mandates a minimum number of staff for certain aspects of the SCI program. The SCI team includes staff with SCI/D experience, which is not limited to the following minimum requirements for physicians, nurses, psychologists, social workers, and therapists. Additional staff need to be provided based on local factors in order to meet all program elements. The staff minimum requirements include:

1. Physician Staff. One physician with SCI expertise needs to be assigned to or dedicated to SCI for every ten staffed SCI beds and an additional 0.5 physician to account for management activities as Chief.

2. Nursing Staff. Minimal inpatient nursing staff need to be calculated based on required staffed beds (1.42 full-time employees (FTE) per required staffed bed). Additional nursing personnel need to be provided consistent with local expert panel recommendations based on patient acuity and other local factors. SCI Nurse Managers are not to be included in calculating direct care hours. When SCI unit occupancy exceeds 85 percent, or patient acuities exceed the national average, nursing staff needs to be increased accordingly. Rehabilitation nurses with SCI experience are necessary for accreditation. The nursing staff mix will approximate 50 percent Registered Nurses.

3. Health Technician. Use of SCI health technician position descriptions are encouraged for inpatient and outpatient SCI nursing staff to create advancement opportunities for the nursing assistant staff with SCI experience serving inpatients. SCI health technicians provide personal care and technical assistance to Veterans with SCI/D. SCI technicians have defined criteria and specialized training and skills. The SCI Chief must establish training guidelines and continuing education, and shall define the scope of practice for SCI health technicians.

4. Management of Information and Outcomes (MIO) Coordinator. At each SCI Center there is a MIO Coordinator who:

a. Promotes the use of valid outcomes and program evaluation measures;

b. Shares outcomes information for strategic planning and to recognize program accomplishments;

c. Positively influences the SCI team members regarding the importance of outcomes in program evaluation and improving quality of patient care;

d. Uses outcomes to develop feedback, monitoring, translational, and Quality Improvement Programs;

e. Emphasizes consumer and accreditation perspectives regarding outcomes measurement;

f. Implements effective disability management strategies from outcomes-informed perspectives; and

g. Coordinates activities with the National MIO Team in the Office of SCI/D Services.

5. Psychologist. One psychologist needs to be assigned for every twenty acute or sustaining available SCI beds and an appropriate corresponding panel of outpatients.

6. Social Worker. One social worker needs to be assigned for every twenty acute or sustaining available SCI beds and an appropriate corresponding panel of outpatients.

7. Vocational Rehabilitation Specialists. Vocational rehabilitation specialists need to be assigned to serve inpatients and outpatients.

8. Rehabilitation Therapist. One rehabilitation therapist (from a rehabilitation therapy mix of physical therapy (PT), occupational therapy (OT), kinesiotherapists (KT), and certified therapeutic recreation specialists (CTRS) must be available for every five available beds.

a. Physical therapists with SCI experience serving inpatients and outpatients.

b. Occupational therapists with SCI experience serving inpatients and outpatients.

c. Kinesiotherapists with SCI experience (per local practice) serving inpatients and outpatients.

d. CTRS with SCI experience serving inpatients and outpatients.

9. Other Team Members. Physician Assistants, Nurse Practitioners, SCI Urology Nurse, Administrative Officers, Secretaries, Clinic Clerks, Program Support Assistants, Telehealth Program Support, SCI HC staff, Vocational Rehabilitation Specialists, Pharmacists, Dietitians, Respiratory Therapists, Outpatient Nurses, Outpatient Health Technicians, and Chaplain staff are also important team members, and need to be hired as part of the dedicated SCI team to ensure that all aspects of the SCI Center program are operable.

k. **SCI Center Inpatient Program**

(1) SCI Centers provide the full spectrum of health care needed by the population. Services must include: acute stabilization; acute and sub-acute rehabilitation; acute and sub-acute medical and surgical care; preventive health care; respite care; hospice care, as appropriate; and long-term care consistent with VHA policy.

(2) All patients at the SCI Centers are carefully evaluated by the interdisciplinary treatment team.

(a) An individually tailored comprehensive treatment plan must be initiated for each patient and must reflect direct input and goal setting from the patient.

1. Documentation of the plan must be complete within 5 working days of admission.

2. Revision of the plan takes place as needed; however, at a minimum, it must be re-evaluated every 2 weeks, and it must reflect input from the patient.

3. Treatment conferences (initial or intake, family or discharge planning) are expected to include the patient, and when deemed appropriate, members of the Veteran's local SCI/D PCT using Telehealth technology or other means.

4. The patient is permitted to have any family member, representative, or other requested individual present during treatment conferences, discussions with staff, and the development or

revision of the treatment plan. Patient privacy and confidentiality must be respected during all interactions, treatment conferences and health care rounds.

(b) The Veteran with SCI is assigned to an SCI physician who is responsible for the care of the Veteran for as long as the patient receives care at the medical center. ***NOTE:*** *This approach promotes continuity and quality patient care.*

(3) If the complexity and acuity of the Veteran's care warrants physical transfer to a specialty ward outside the SCI Service, the patient's SCI physician must ensure that SCI/D needs are addressed. This requires the SCI physician and SCI nurse to visit the patient on a daily basis and document their findings in the progress notes. When medically stable, the patient is transferred back to the SCI Service.

(4) After having undergone surgery, patients must be returned to the SCI Center within 24 hours after leaving the recovery room, except in extenuating circumstances. In these cases, the patient's SCI staff physician and appropriate SCI team members must visit the patient, and document their findings in the progress notes. Achievement of optimal functional ability of the Veteran with SCI/D is expected following each course of hospitalization.

(5) Patient education sessions provide the foundation for patient empowerment and responsibility in health maintenance, and these sessions are expected to continue throughout the rehabilitation course of treatment. Appropriate educational topics must include, but are not limited to: spinal cord function, skin care, bladder and bowel management, health maintenance and prevention of medical complications, psychological health, prosthetic awareness, nutrition, activities of daily living, sexuality and fertility, vocational issues, recreation, community accessibility, management of attendants, and equipment maintenance.

(6) Absences from the hospital during an episode of care can be authorized when, in the judgment of the patient and SCI treatment team, time at home would enhance and speed the patient's rehabilitation, or when necessary to facilitate a discharge plan.

(7) After maximum hospitalization benefits have been obtained at the SCI Center, the patient is discharged to a suitable and appropriate environment. In the event the patient requires further hospitalization without SCI specialty care, the spoke referring medical center must accept the return of the patient.

(8) Upon transfer, all pertinent records and x-rays must be available electronically, sent with the patient, or mailed in time to be received before the patient's arrival. The patient's discharge summary and discharge planning progress notes must be provided to the SCI PCT at the time of discharge from the SCI unit for coordination of care and follow-up needs.

(9) Follow-up care is scheduled as clinically indicated for all discharged patients, and managed by the SCI/D PCT.

(10) A patient may choose to stop hospitalization against medical advice (AMA). All AMA discharges are tracked in the QI Program of the SCI Center. When feasible, supportive services or referral to community resources may be provided.

(11) An SCI physician must be on call at all times for assistance and consultation. Medical house staff at facilities having SCI Centers must have appropriate training in SCI emergencies and basic SCI care before assuming on-call duties. SCI physicians must be available for on-call consultations during non-duty hours.

l. **SCI Center Outpatient and Primary Care Services**

The SCI Center Outpatient Program provides the full spectrum of health care and rehabilitation needed by the SCI/D population. Every SCI Center provides an outpatient program of scheduled hours and treatment, including SCI/D primary care, unscheduled visits from patients with acute medical conditions, SCI HC, and SCI Telehealth care. ***NOTE:*** *Any triage to non-SCI providers must include SCI consultation.*

(1) The scope of outpatient treatment at SCI Centers is comprehensive and interdisciplinary. Services provided to a particular patient are a part of a continuum of care and integrate SCI-HC when needed.

(2) Generally, the SCI physician is able to successfully address the wide array of medical conditions associated with the care of persons with SCI/D. However, a SCI physician may generate a consultation to another discipline when the presenting problem is beyond the SCI physician's clinical skills.

(a) The consult should clearly indicate:

1. Whether the SCI physician is seeking an advisory consultation, or a consultation in which treatment by the consultant is requested.

2. That treatment by the consultant needs to be discussed in advance with the patient's SCI physician (the SCI physician retains the principal responsibility for the patient).

(b) Upon examination, the consultant may accept responsibility for the patient's treatment for that particular portion of care, or decline to accept the patient. In either case, the medical record reflects the course of treatment provided to the patient.

(3) If it is necessary for the patient to remain overnight, lodging capabilities for Veterans with SCI who are functionally independent need to be available on the SCI unit.

m. **SCI Center HC Program.** SCI-HC at the SCI Center supports the transition and medical needs of patients in the home setting, decreasing the need for hospitalization when possible. The SCI-HC Program renders important medical, rehabilitation, and preventive services determined necessary to sustain Veterans with SCI/D in the community and assists the VA Medical Foster Home (MFH) Care Coordinator in specialized home assessments, the provision of caregiver training for the MFH caregiver, and routine care visits to ensure proper management of bowel and bladder care, skin care, and pain management. SCI-HC consists of interdisciplinary services as an integral part of SCI outpatient services under the clinical and administrative responsibility of the Chief, SCI Service. ***NOTE:*** *Telehealth care may be used as an adjunctive measure to supplement the SCI-HC program.*

(1) All SCI Centers must provide follow-up through SCI-HC. This follow-up consists of interdisciplinary services as an integral part of the SCI outpatient services.

(2) Patients living beyond a 100-mile radius of the SCI Center may be evaluated by SCI-HC if approved by the Chief, SCI Service. ***NOTE:*** *This specified distance is determined locally by the Chief, SCI Service.* However, such patients may be referred to a closer VA medical center and SCI Coordinator for follow-up care.

(3) Veterans with SCI/D who are placed in community nursing homes and MFH must be seen and followed by SCI-HC staff when they reside within the allotted transportation distance of the SCI-HC Program.

(4) SCI-HC Clinics must be set up using clinic stop 215 and dedicated SCI-HC resources will be mapped accordingly in the Decision Support System.

(5) SCI/D MFH visits by the SCI-HC team must be captured using clinic stop 215 as the primary stop code and 162 as the secondary (MFH credit stop).

(6) Before SCI-HC admission, the patient and the caregiver must be evaluated and provided with adequate education to ensure successful participation.

(7) Upon admission to the SCI-HC Program, a treatment plan must be developed in collaboration with the patient and family by the SCI-HC staff. Specific goals of treatment and target dates for accomplishment are to be established. The care plan is to be reviewed and updated by the entire team no less than every 90 days, or as required by accrediting organizations such as The Joint Commission (TJC), and a determination made regarding the need for continuance in the program. An interdisciplinary approach to treatment planning and service delivery needs to be reflected in the medical record.

(8) Medical records documentation must meet VA and appropriate accrediting organization requirements by using CPRS for documentation. In addition, the SCI-HC Program must submit reports to VHA Central Office as requested.

(9) SCI-HC participates in the service-based SCI QI Program.

(10) All Veterans in the SCI-HC Program are eligible for inpatient admission to the SCI Center, if medically indicated.

(11) To be admitted to SCI-HC:

(a) The patient must have a medical need for skilled services in the home and live in the geographic area covered by the SCI-HC program.

(b) The home environment must be physically suitable or adaptable for daily care to be provided at home.

(c) The patient’s medical problems must be able to be managed or coordinated by the SCI-HC team.

(d) The patient and family, or MFH caregiver (or others) must:

1. Assist in developing the proposed plan of care;

2. Give informed consent to be part of the program; and

3. Be in agreement with treatment plans.

(12) SCI-HC services provided include, but are not limited to:

(a) Prevention of complications;

(b) Education;

(c) Home evaluation;

(d) Medical management and care;

(e) Psychological and social support;

(f) Community agency referrals;

(g) Nutritional counseling;

(h) Direct nursing care, when indicated;

(i) Assessment of equipment needs;

(j) Education and support to patients, families, and caregivers;

(k) Leisure counseling and training;

(l) Vocational follow up;

(m) Establishment of a therapeutic regimen in the home;

(n) Assessment of needs for homemaker or home health aide services with appropriate referral to community or other resources; and

(o) Training and assistance in ADLs.

(13) Home visits must be ordered by a physician; the frequency of home visits is determined by the individual needs of each patient. Each team member must write progress notes after every home visit. Patients admitted to the SCI-HC Program generally fall into one of three categories:

(a) Intensive Patients. Due to the scope or severity of problems, these patients must receive a minimum of one visit per week by a discipline associated with SCI patient care. Examples of such patients include:

1. The newly injured who are adjusting to community living following initial discharge from the medical center;

2. Those with acute problems (i.e., new diagnosis of diabetes or hypertension); and

3. Any patient with specific changes in the home and/or health environment (i.e., breakdown in community support system, change in attendant or equipment).

(b) Maintenance Patients. Maintenance patients must receive a minimum of one visit every 2 or 3 weeks (or a frequency determined by the SCI team) by a discipline associated with the SCI Center. Examples of such patients include those in need of regular laboratory work, functional rehabilitation evaluations, regular nutritional counseling, or caregiver support.

(c) Preventive Care Patients. Preventive care patients must receive a minimum of one visit every quarter by a discipline associated with the SCI Center. Such patients have no ongoing major problems, but need periodic monitoring for support, assessment, and prevention of problems. These patients include individuals at risk for recurrence of problems; those with a history of high recidivism who may benefit from ongoing monitoring to avoid hospitalization; or those in special programs (e.g., MFH) where monitoring is necessary.

(14) Length of participation in the SCI-HC Program is determined by clinical need. There is an expectation that patients with new injuries will be enrolled in the SCI-HC Program for less than 1 year, as the focus of services needs to be on independent community functioning. All patients are to be re-evaluated every 90 days, or as required by accrediting organizations such as TJC, regarding need for continuation of the program.

(15) As part of the admissions process and on an ongoing basis, patients and caregivers must be offered education and training in home safety, infection control, and handling of emergencies.

(a) Patients are to be given written information regarding procedures of handling emergencies during the program's normal duty hours, as well as after hours. Plans are to be developed to ensure continuing and appropriate care in case of an emergency resulting in the interruption of patient services.

(b) Patients must be provided education regarding basic home safety, the safe and appropriate use of medical equipment, and the identification, handling, and disposal of wastes in a safe and sanitary manner.

1. The program must have infection control procedures that address personal hygiene, isolation precautions, aseptic procedures, staff health, transmitted infections, and appropriate cleaning and sterilization of equipment.

2. All staff, patients, and caregivers must be instructed regarding their responsibilities in the infection control program.

3. A system must be developed to report and document all accidents, injuries, safety hazards, and infection control.

(16) Any of the following situations provide sufficient reason to discharge a Veteran patient from the SCI-HC Program

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(a) The patient has achieved the goals identified in the care plan and no longer needs SCI-HC intervention.

(b) The patient is admitted to the medical center for an extended stay of more than 15 days.

(c) The patient requests termination.

(d) A persistent and intentional refusal of a Veteran, family, and/or significant other to cooperate with SCI-HC Program staff, resulting in an inability to provide services safely or effectively. Before the final decision is made, the situation must be discussed with the Veteran or, with the Veteran's approval, their representative, family, and/or significant other and documented in the record. The Veteran to be discharged must be notified in person and in writing. If a family member or significant other's interference in the provision of care through the SCI-HC Program results in discharge from the program, a referral will be made to an appropriate health care professional for additional intervention, services, or referral.

(17) The SCI-HC supports the development of SCI MFH as resources allow and supported by state laws. SCI-HC provides home health care, and monitors care provided by the MFH caregiver. SCI-HC will:

(a) Provide home health care services to Veterans in MFH in accordance with national program policy for Home Based Primary Care (HBPC) or SCI-HC;

(b) Educate the MFH caregiver and relief caregivers in specialized Veteran care needs;

(c) Evaluate the need for adaptive medical equipment and appropriate home improvements and assist eligible Veterans in applying for HISA grants when indicated;

(d) Identify any need for community resources and coordinate the purchase of community home care services;

(e) Support the MFH caregiver and Veteran through timely communication and problem solving;

(f) Update the Veteran's family or surrogate regarding changes in the Veteran's medical condition in accordance with VA privacy policy and procedures;

(g) Assist the MFH Coordinator in monitoring the MFH environment with special emphasis on safety, potential for abuse and neglect, signs of caregiver stress or burnout, and any other issues and concerns that may arise;

(h) Report any MFH violations or medical, psychiatric, or psychosocial concerns to the MFH Coordinator; and

(i) Assist in scheduling respite care to alleviate caregiver stress and fatigue.

(18) **Responsibilities of SCI-HC Personnel**.

(a) SCI Chief. The SCI Chief is responsible for:

1. The SCI-HC program, both clinical and administrative. ***NOTE:*** *The SCI Chief may delegate the administrative responsibility for SCI-HC to the Program Coordinator.*

2. Ensuring that written policies and procedures are developed in compliance with all applicable VHA Central Office and accrediting organization standards and requirements, and that these be reviewed bi-annually, and updated as necessary.

3. Selecting an SCI-HC Program Coordinator in conjunction with the respective service chief.

4. Assigning the physician in charge of SCI-HC staff.

5. Providing input to the performance evaluation of all SCI-HC staff.

6. Providing liaison with other services.

7. Ensuring SCI-HC actively participates in the SCI QI Program.

8. Considering continuing education participation as a part of annual staff evaluation reports and in credentialing and privileging activities.

(b) SCI-HC Program Coordinator. The SCI-HC Program Coordinator is responsible for:

1. Providing administrative direction to the program interpreting national SCI-HC, local VA medical center policy, and accreditation guidelines to the SCI-HC team and the Medical Center;

2. Developing and implementing local policies and procedures;

3. Coordinating the provision of services and administrative functions of the program;

4. Facilitating appropriate referrals to the program;

5. Monitoring and controlling program operation expenditures and advising the SCI Service Chief on budgetary requirements;

6. Coordinating and participating with selecting officials in the filling of SCI-HC personnel vacancies;

7. Arranging orientation of new SCI-HC staff;

8. Preparing and maintaining program reports and statistics;

9. Evaluating program effectiveness;

10. Providing input to the performance appraisals of team members and forwarding input through the SCI Service Chief;

11. Designating an SCI-HC QI representative;

12. Ensuring appropriate documentation is entered in CPRS, according to agency policy; and

13. Maintaining appropriate records for reporting purposes.

(c) SCI-HC Team. The SCI-HC staff must be interdisciplinary and with appropriate personnel to meet the patient's identified needs and treatment goals, and include the SCI-HC Program Coordinator.

1. Staff members are selected and assigned by their respective service chiefs; however, the Chief, SCI Service, in consultation with the SCI-HC Coordinator, must concur in each selection.

2. All staff are programmatically accountable to the Chief, SCI Service.

3. All team members need to:

a. Participate in administrative and clinical team meetings;

b. Document in CPRS according to agency policy;

c. Provide input to the QI process;

d. Conduct and arrange home visits and home evaluations as appropriate;

e. Share new developments pertaining to the patient, caregiver, and home situation with other team members;

f. Participate in inpatient discharge planning activities;

g. Evaluate safety and emergency preparedness in the home;

h. Participate in planning each patient's discharge from the program;

i. Report program needs, problems, or concerns to the coordinator;

j. Maintain required credentials and, if appropriate, clinical privileges;

k. Participate in orientation of new SCI staff;

l. Be involved in on-going staff development and continuing education activities for the SCI-HC Program; and

m. Comply with the professional standards and guidelines of their respective disciplines.

n. **Evaluation of Quality**

(1) Each SCI Service must undertake service-level QI activities that monitor critical aspects of care and provide an on-going and continuous evaluation of the program. A SCI-QI committee is to meet at least quarterly to:

(a) Identify important aspects of care, and monitor areas of service delivery identified as high-risk, high-volume (such as preventive health maintenance program), or problem-prone.

(b) Address patient access to care, patient satisfaction, patient outcomes, and risk management.

(c) Define the systematic plan used for collecting and analyzing data, taking corrective action, and reporting results.

(d) Ensure SCI HC staff are actively participating in the SCI Service QI Program. ***NOTE:*** *The quality improvement plan is to comply with VHA Central Office and accrediting organizations' criteria, and be evaluated on an annual basis. The results need to be reported at SCI staff meetings and to the medical center quality management program.*

(2) All clinical staff must be appropriately credentialed and privileged through medical center and VA approved procedures. All privileges requested by potential or incumbent SCI clinicians must be routed through the Chief, SCI Service, for review, concurrence, and/or recommendations. The Chief, SCI Service, uses the information collected through quality management activities for reviewing and/or revising staff clinical privileges as governed by appropriate public law and VA regulations.

(3) Accreditation must be maintained with the Commission on Accreditation of Rehabilitation Facilities (CARF) and TJC for acute care beds. ***NOTE:*** *Other accreditation standards are applicable to designated long-term care SCI beds.*

(4) Each SCI Service must follow and respond to VA established QI initiatives.

o. **Continuing Education**

(1) In-service continuing education must include topics identified through the QI process and the review of information and outcomes management data (the discussion is to include trends of high-risk and/or high-intensity patient care, missed diagnoses, complicated cases, morbidity-mortality conferences, etc).

(2) All continuing education must be documented, and a formal review of each staff member's educational needs is to take place annually.

14. SCI SUPPORT CLINIC/SCI PRIMARY CARE TEAM IN THE NON-SCI CENTER MEDICAL CENTER

***NOTE**: VHA is implementing Patient Aligned Care Teams (PACT). SCI Support Clinics and SCI PCTs shall retain their unique identity and function for direct access by Veterans with SCI/D. The SCI Support Clinics and SCI PCTs have historically provided comprehensive, coordinated, and accessible services and may provide enhanced services similar to those defined for PACTs.*

a. **Appointment of SCI Support Clinic or SCI Primary Care Teams.** The medical center Chief of Staff appoints an SCI Support Clinic or SCI PCT at each VA medical center without an SCI Center. The SCI Support Clinic or SCI PCT provides primary and coordinated care to the local eligible Veteran with SCI/D. An SCI Support Clinic or SCI PCT must have at least four appointed team members including a physician, registered nurse care manager, social worker, and clinical associate (Licensed Practical Nurse, Medical Assistant, or Health Technician) or clerk. The distinguishing characteristic of a SCI Support Clinic is the presence of a dedicated medical specialist (physiatrist, neurologist, internist) who can provide basic SCI/D specialty care and may also provide SCI/D primary care. If services of the SCI Support Clinic specialist are limited to basic SCI/D specialty care, primary care services must be provided by another SCI designated primary care physician, physician assistant, or registered nurse practitioner assigned to the SCI team.

b. **Roles of the Designated SCI Team Members in the Non-SCI Center Medical Center.**

(1) **SCI Physician or Provider Role**: The designated SCI physician provides primary care services and coordinates any needed consultative care for this population. Providers serving in this role need to have a limited panel size to reflect the frequency of appointments; longer appointment times needed (typically 1 to 2 hours or more for outpatient visits, while annual evaluation visits can be extensive); case management need; the expectation of inpatient consultative visits; coordination of care with the designated SCI Center; and participation in SCI Telehealth care. The distinguishing characteristic of a SCI/D Support Clinic is the presence of a dedicated medical specialist (physiatrist, neurologist, internist) who by virtue of training and experience provides basic SCI specialty care and may also provide SCI primary care. If services are limited to basic SCI specialty care, a primary care physician, physician assistant, or registered nurse practitioner should work with the specialist to deliver SCI primary care services. If the SCI assigned physician's specialty role does not allow for the provision of primary care services, another SCI trained provider (e.g., physician assistant, nurse practitioner, or primary care physician) works with the SCI physician to provide primary care.

(2) **SCI Nurse Role**: The SCI trained nurse must be available during scheduled clinic hours and throughout the week for triage of unscheduled needs of this population. Before the appointment with the provider, the nurse needs to review with the Veteran their existing problem list, any new or recurring issues, obtain the Veteran's weight and vital signs, and assess skin, bowel and bladder issues. The SCI nurse assists the Veteran, as needed, with transfers, undressing, and dressing. The nurse also needs to be available to assist the Veteran and VA

staff, regardless of the Veteran's location (e.g. HBPC, inpatient stay, nursing home setting, etc), in troubleshooting medication and supply issues, skin care assessment, review of SCI practices and protocols, referrals to the SCI Center, SCI Telehealth visits, care planning, telephone triage, autonomic dysreflexia risks, skin care, fee basis bowel and bladder issues, etc.

(3) **SCI Coordinator Role**: The Chief of Staff at each VA medical center without an SCI Center designates the social worker member of the SCI/D Support Clinic or SCI/D PCT as the SCI Coordinator.

(a) The social worker selected as Coordinator must have, or be willing to acquire, appropriate knowledge about:

1. SCI treatment and rehabilitation;

2. Physical and psychosocial implications for the individual and family;

3. Appropriate clinical interventions, including sexual counseling;

4. Prosthetic services;

5. VHA policies affecting Veterans with SCI;

6. VA benefits and other government entitlement programs for treatment, rehabilitation, and services;

7. Community resources and services for the disabled;

8. Local peer counseling programs or groups; and

9. Federal laws or regulations regarding the disabled.

(b) The name and location of the SCI Coordinator must be posted in the Admissions and Ambulatory Care area, and listed in the medical center telephone directory.

(c) Arrangements must be made for the designated SCI Coordinator to receive specialized training to include a visit to the designated SCI Center.

(d) When developing the SCI Coordinator's functional statement, the specialized training, independent functioning, and complex and unpredictable caseload requirements warrant consideration of an advanced practice General Schedule grade. At least .5 FTE needs to be allotted for the position of the SCI Coordinator, or 1.0 FTE, if caseload is 100 or more patients with SCI/D.

(e) The SCI Coordinator must be knowledgeable about all aspects of SCI and able to provide information to patients, families, the SCI Support Clinic, or SCI PCT. It is important that the Coordinator have the ability, insight, imagination, and drive to:

1. Assist the Veteran with SCI/D in planning and coordinating needed services;

2. Provide consultation and teaching; and

3. Establish and maintain effective working relationships with local management, other disciplines and services, as well as with a variety of community organizations.

(f) The SCI Coordinator is responsible for:

1. Facilitating appropriate and timely transfers to SCI Centers.

2. Identifying new and established Veterans with SCI who come to the medical center, and developing a procedure for referral to the SCI Center.

3. Providing support to the SCI Support Clinic or SCI/D PCT and SCI Center.

4. Ensuring that a current assessment (based on a comprehensive social database) is completed and indicated psychosocial treatment and services are provided and documented in CPRS. This includes appropriate counseling, educational information and referrals to VA and community resources and services, and, as appropriate, to the vocational rehabilitation case manager.

5. Preparing a current psychological, social, and vocational assessment and treatment plan based on a comprehensive psychological, social and vocational data base. This assessment includes identification of psychological, social, and vocational treatment and services to be provided with emphasis on:

a. Present living arrangement (i.e., housing type, access and mobility barriers, caregiver status, caregiver attitude and experience, and health of the caregiver).

b. Support systems (i.e., family (origin and current), peer group, other community systems).

c. Educational, vocational, and avocational interests, levels of attainment, and work history.

d. Behavior patterns, coping and/or defense mechanisms, and sexual adjustment.

6. Referring all Veterans with SCI/D to the Veterans Benefits Counselor and, with the Veteran's consent, to a Veteran Service Officer (VSO).

7. Developing a system of outreach to extend services to Veterans with SCI/D not using VA for their health care needs. This involves maintaining contact with local SCI programs, VSOs, the community, and the nearest VA SCI Center.

8. Establishing and maintaining the SCD Registry or SCIDO database of Veterans with SCI/D in the primary service area of the medical center.

9. Organizing services to Veterans with SCI and reporting programmatic difficulties to the Chief, SCI Service, of the appropriate catchment area.

10. Using the SCD-Registry in daily practice to identify Veterans with SCI/D admitted to, or discharged from, the medical center. ***NOTE:*** *This information is to be used for consultative visits, appropriate referrals, and sharing of pertinent discharge information with the SCI Centers, as deemed needed.*

11. Acting as a consultant to other staff members in developing individualized rehabilitation plans.

12. Establishing liaison with, and fostering involvement of, physicians, nurses, and other disciplines, as appropriate.

13. Using existing quality management mechanisms, national policies, local policies, procedures, and external reviews in evaluating and documenting this program's effectiveness.

14. Ensuring that Progress Notes reflect treatment progress and goal changes. This includes a closing summary when treatment is completed or a patient is transferred.

c. **Education for SCI Support Clinic or SCI Primary Care Team.** Only providers who have completed the Veterans Health Initiative (VHI) continuing medical education package on SCI or have equivalent training and experience may be designated as SCI Support Clinics or SCI PCTs. SCI Support Clinics and SCI PCTs are to have clinical educational contact with personnel from the SCI Center on a regular basis. SCI Support Clinics and SCI PCTs need to conduct a learning needs assessment as part of their annual competency review. SCI Support Clinic and SCI PCT providers must familiarize themselves with program standards through involvement in the following types of activities:

(1) Review of clinical practice guidelines;

(2) Literature reviews;

(3) Clinical educational contact with SCI Center personnel;

(4) Mentoring visits at an SCI Center;

(5) Attendance at professional conferences;

(6) Attendance at regularly scheduled SCI Center conference calls;

(7) Consultative visits from the SCI Center staff; and

(8) Attendance at national SCI training initiatives is strongly encouraged.

d. **Training Initiatives for SCI/D Support Clinic/SCI/D PCT**. The medical center Chief of Staff must:

(1) Notify the Chief Consultant, SCI/D Services of any changes in SCI Support Clinic or SCI PCT core staff (SCI primary care physician, registered nurse, and social worker serving as the SCI Coordinator).

(2) Ensure that SCI Support Clinic and SCI PCT staff are afforded educational funds for VA SCI national educational initiatives and local SCI/D training initiatives when needs are identified.

e. **Workload Collection.** SCI Support Clinics and SCI Primary Care Teams must have standing SCI Clinic times, using 210 (SCI) as the primary clinic stop code and an appropriate credit code (for the provider). Patients are to be seen outside the regularly scheduled SCI Clinic times as needed.

f. **Types of Care in the Non SCI Center Setting.** The SCI/D Support Clinic or SCI/D Primary Care Team (PCT) provides comprehensive primary care to Veterans with SCI/D, ensuring access to basic and preventive health care services, and delivers appropriate, efficient, continuous and coordinated care between the patient and the health care team.

(1) **Basic Primary Care.** Basic primary care is provided by the SCI/D Support Clinic or SCI/D PCT.

(2) **Recurrent or Persistent Problems.** Recurrent or persistent problems (e.g., recurrent urinary tract infections, autonomic dysreflexia that does not resolve with appropriate interventions) need to be referred to the SCI Center or discussed with SCI Center staff.

(3) **Complex Problems and Procedures.** Complex problems and procedures that require specialized knowledge must be referred to the SCI Center (e.g., comprehensive pain management, respiratory infections in Veterans with high tetraplegia, urodynamics). While comprehensive and coordinated health care is the goal of the SCI/D Support Clinic or SCI/D PCT, SCI/D Center experts are best able to diagnose and treat complex SCI/D-related conditions. ***NOTE:*** *The SCI/D Support Clinic and SCI/D PCT working collaboratively with their SCI Center helps to ensure healthier Veterans with SCI/D. There is no "one-size-fits-all" model that fits the collaboration between SCI/D Support Clinic and SCI/D PCTs and SCI Centers because the expertise and experience in SCI/D Support Clinics and SCI/D PCTs with SCI/D-specific conditions vary.* The general principles and illustrative examples in this handbook are helpful in developing optimal models of collaborative care between SCI/D Support Clinic or SCI/D PCTs and SCI Centers. A more comprehensive list of specific conditions is included in subpar. 27.a.

(4) **Major Surgeries.** Major surgeries must always be performed in the SCI Center unless an emergency contraindicates transportation of the patient. Some examples of surgeries that must be performed in the SCI Center include myocutaneous flaps for pressure ulcers, genitourinary surgeries, colostomies, orthopedic procedures (e.g., carpal tunnel release, rotator cuff repair), spine surgeries, and neurosurgical procedures.

(5) **Acute Rehabilitation and Complex Specialty Care.** All acute rehabilitation and complex specialty care must take place at SCI Centers. Primary care services, or short-duration hospitalization, at non-SCI Centers may decrease the necessity of patient transfers to the SCI Center.

g. **Location of Care**. Veterans with SCI/D that live a long distance from the SCI Center and within a closer proximity to a VA Medical Center without an SCI Center, must be cared for by both the SCI Center, and the SCI/D Support Clinic or SCI/D PCT at the closer VA facility. This is commonly referred to as the Hub and Spoke system of care.

(1) Primary care management for Veterans with SCI/D is encouraged from the closest VA Medical Center; this could be a medical center with an SCI Center, SCI Support Clinic or SCI Primary Care team.

(2) Use of a community-based outpatient clinic (CBOC) is discouraged for Veterans with SCI/D. However, for patients who choose to receive their care at a CBOC, the SCI team at the parent VA facility of the CBOC, must assist with the tracking, consultation, and appropriate referrals of the patient for specialty care services.

h. **Dual Providers:** Veterans with SCI/D may be assigned to more than one SCI/D PCT in the hub and spoke system of care due to the shared responsibility for caring for these Veterans. SCI/D primary care is basic or general health care provided at all VA medical centers. Usually this care is for common illnesses and health maintenance and is provided at the VA medical facility closest to the Veteran's home. ***NOTE:*** *What may be a relatively minor symptom or problem in the person without SCI/D may herald a grave and even life-threatening problem for the individual with SCI/D. SCI/D Support Clinics and SCI/D PCTs must be familiar with basic SCI/D related primary care (e.g., fracture risk due to early onset osteoporosis, hypertensive episodes related to autonomic dysreflexia, frequent urinary tract infections related to the use of catheters) and SCI/D-specific CPGs.*

15. USE OF CLINICAL PRACTICE GUIDELINES

Clinical practice guidelines (CPG), as developed by the Consortium for Spinal Cord Medicine (CSCM) and other appropriate bodies, need to be used in the care of patients to the extent supported by current medical evidence and state-of-the-art practice. The Chief, SCI Service, is responsible for incorporating CPGs into the appropriate medical care settings. These CPGs can be found on the SCI intranet site at http://vaww.sci.va.gov/ under the training link. ***NOTE:*** *This is an internal web site not available to the public.*

16. SPINAL CORD DYSFUNCTION (SCD) REGISTRY OR SPINAL CORD INJURY AND DISORDERS OUTCOMES (SCIDO)

a. **SCD Registry and SCIDO**. The Veteran population served by VHA is tracked for clinical, administrative, outcome, and research purposes through use of the SCD Registry's or SCIDO's minimal data set. The national repository for this data set is located at the Austin Information Technology Center (AITC), Austin, Texas. Designated SCI team members are expected to maintain this data set by entering, at a minimum, all items contained in the SCD Registry or SCIDO database. ***Note****: VHA is rolling out a new software application called SCIDO, throughout VHA by SCI catchment areas. After receipt of SCIDO, sites are expected to transition from use of the SCD Registry to SCIDO. The SCIDO application will eventually replace the use of the SCD Registry in all VA Medical Centers, allowing SCI Centers to better capture clinical aspects of care and outcome measures.* Through the registration of Veterans in the SCD Registry or SCIDO, this database is linked to other Veterans Health Information System

and Technology Architecture (VistA) files, allowing SCI providers to track Veterans admitted and discharged in the medical center, and to review utilization of resources. The SCI Coordinator is responsible for data entry at non-SCI Center facilities; the Chief, SCI designates personnel responsible for data entry at the SCI Centers. The minimum data set for entered in SCIDO includes:

(1) Registration status;

(2) SCI/D network;

(3) Highest level of injury;

(4) VA medical center where most primary care is received;

(5) VA medical center where comprehensive preventive health evaluation is received;

(6) Etiology;

(7) Date of onset;

(8) American Spinal Cord Injury Association (ASIA) impairment and classification scale;

(9) Comprehensive preventive health evaluation offered and/or received;

(10) The primary care provider; and

(11) Appropriate outcome information.

b. **Training.** SCI Coordinators, SCI/D Management of Information and Outcomes (MIO) Coordinators, and others using the Registry or SCIDO at each medical center, need to be provided the opportunity to receive training and ongoing education on the SCD Registry or SCIDO.

17. SCI/D SYSTEM OF CARE CONTINUUM

a. **Emergency Care of Veterans with SCI/D**

(1) **Non SCI Center Setting.** Veterans with SCI/D requiring emergent, or immediate medical attention in a non-SCI/D setting must be evaluated by staff trained in the Medical Care of Persons with SCI Module in the Veterans Health Initiative (VHI), available at the SCI intranet site http://vaww.sci.va.gov/ (***NOTE:*** *This is an internal Web site not available to the public)* under the training link or with appropriate equivalent experience. Once this evaluation is completed, the patient's medical condition needs to be discussed with the Veteran's SCI/D primary care physician if there are follow-up needs, or when consultation is deemed urgent. Patients with SCI/D requiring surgical intervention need to receive care in a VA medical center with a designated SCI Center. If urgency requires that treatment be provided at a non-SCI Center, the Chief of the nearest SCI Center must be advised of this fact as soon as possible. Typically, such patients are retained in a non-SCI Center only until they can safely be transferred

to a VA medical center with an SCI Center. Staff in the SCI Centers and SCI Coordinators in the non-SCI Center facilities need to use the tools available in the Computerized Patient Record System (CPRS), SCD Registry, or SCIDO to review patient care for unscheduled visits and follow-up care needs.

(2) **Community Referrals.** Referrals received from the community to a VA medical center without an SCI Center are handled as a transfer of care from the local VA medical center for Veteran convenience and travel arrangements; however, the Veteran is admitted directly to the SCI Center. Referrals received from the community directly to an SCI Center are to be handled as a direct admission, and if the Veteran desires, follow-up care is subsequently coordinated with the local VA medical center. ***NOTE:*** *Transportation for scheduled appointments and transfers to SCI Centers must be in accordance with national VA policy.*

b. **Medical and Surgical Stabilization of New Injuries.** Medical, surgical, and interdisciplinary services are concerned with restoring anatomic and physiological equilibrium while managing the medical and physiological sequelae of SCI/D and other diseases or injuries. Stabilization of the injury is an attempt to prevent additional impairments while focusing on prevention of complications. The site of this care is the SCI Center. ***NOTE:*** *VHA provides back-up support to the Department of Defense (DOD) in case of an emergency.*

c. **Rehabilitation.** Rehabilitation is the process of providing comprehensive services deemed appropriate to the needs of persons with disabilities in a coordinated manner, through an integrated program designed to achieve objectives of improved health, welfare, and realization of the person's maximum physical, social, psychological, and vocational potential for useful and productive activity.

(1) Rehabilitation services are necessary for a person with a disability to:

(a) Achieve reintegration into the home, community, and workforce while avoiding long term institutionalization, except in circumstances unique to the individual;

(b) Achieve the person's maximum potential for personal, psychological, social, vocational and economic adjustment; and

(c) Move beyond the services available in the person's usual daily experience.

(2) Rehabilitation programs consist of coordinated and integrated services with the following broad elements: evaluation, treatment, education, training, and providing Veterans' meaningful experiences that will encourage community reintegration such as off grounds passes, introduction to mass transit and air travel accommodations, and drivers training. An interdisciplinary team provides these services to the individuals and their families. Rehabilitation programs are designed to:

(a) Continue as long as the person makes significant and observable improvement;

(b) Promote outcomes that minimize and prevent impairments;

I Reduce activity restrictions; and

(d) Lessen limitations on meaningful social role participation.

d. **SCI Comprehensive Preventive Health Evaluation**. SCI Comprehensive Preventive Health Evaluations, also known as "annual evaluations" focus on the prevention or early identification of complications related to SCI/D.

(1) The comprehensive preventive health evaluation must be offered to Veterans annually and are to be performed at SCI Centers due to the full array of team members and expertise available in the SCI Center.

(2) The scope of the evaluation is comprehensive and includes elements of preventive health care defined for the general Veteran population, provided there are no contraindications. ***NOTE:*** *Such elements are described in VHA policies and procedures developed by VHA's National Center for Health Promotion and Disease Prevention and are not listed here due to their periodic revision.*

(3) The SCI Comprehensive Preventive Health Evaluation also includes elements specific to the prevention of common sequelae and complications that follow SCI/D as described in subparagraph 13.i.

(a) If the Veteran is unable or refuses to travel to the SCI Center, the SCI Support Clinic or SCI PCT needs to document the attempted referral in the Veteran's medical record, and provide an evaluation as comprehensive as their expertise allows.

(b) Summarized written results of the completed evaluation, and any follow-up recommendations must be provided to the Veteran, designated SCI Center, SCI Support Clinic or SCI PCT provider(s).

e. **Sustaining Medical and Surgical Care**. Sustaining care is the assessment and treatment of conditions as a consequence of SCI/D or when treatment is affected by the presence of SCI/D.

f. **Respite Care**. Respite care is recognized as an important consideration for families and caregivers of physically dependent Veterans. Each Veteran using attendant care is offered respite care on the SCI unit in a VA medical center having an SCI Center, unless the Veteran requests provisions in another setting. The duration of any respite care admission, absent complicating medical factors, will not exceed 14 days. However, the total of all respite care for a Veteran in 1 year, absent complicating medical factors, is not to exceed 30 days.

g. **Long Term Care**. VHA's SCI/D System of Care is required to provide and maintain access to a full continuum of care for Veterans with SCI/D, including long-term care. The mission of certain SCI Centers emphasizes the provision of long-term care; however, facilities without an SCI Center may also provide long-term care for Veterans with SCI/D. The goal of long-term care is to assist the Veteran with SCI/D to attain or maintain a community level of adjustment, and maximal independence despite the loss of functional ability due to the aging process, loss of a primary caregiver, or medical complications. No Veteran with SCI/D is to be discharged to a nursing home solely because of their SCI/D.

(1) **Long Term Care Services**. The continuum of extended care services for Veterans with SCI/D is a mix of services designed to meet eligibility requirements, individual need, personal preference (choice), and promote independent community living whenever possible. A patient centric team approach must be used in planning for the long-term care needs of the Veteran. The following list is not all-inclusive; however, provides options for care as patient resources allow:

(a) Care at a designated VA SCI long-term care unit,

(b) VA Community Living Centers (CLC),

I Home care services,

(d) Medical Foster Homes (MFH),

(e) Homemaker and/or home health aide services,

(f) Adult day health care,

(g) Contract home health care,

(h) Home-based primary care,

(i) SCI home care (SCI-HC),

(j) Community residential care,

(k) Geriatric Evaluation and Management (GEM),

(l) Geriatric Research and Education Clinical Center (GRECC),

(m) State or Veterans homes,

(n) Domiciliary care,

(o) Respite care.

(2) **LTC Placement Considerations**. Regardless of the location where Veterans with SCI/D receive care, there are general guidelines to ensure appropriate services are provided. These include:

(a) Patients are not to be discharged to a nursing home, unless the patient's general health status and social circumstances necessitate such placement.

(b) The aging Veteran with SCI/D has special needs (e.g., supplies, quality of life concerns, and desires for less restrictive and supportive living environments); such needs are to be incorporated into the patient's treatment plan.

I When it is appropriate for the Veteran to be discharged to a nursing home based on achievement of maximum hospital benefit, consultation with the Veteran, the Veteran’s

guardian, the appointed Veteran advocate and/or family member (at the request of the Veteran or guardian, as appropriate), and the SCI/D physician occurs. All other placement alternatives need to be considered before making such a decision.

(d) VA's CLC or community nursing home needs to be as close as possible to the Veteran's selected domicile or home, and close to the Veteran's social support unless a brief stay at another location is indicated for specialized health care needs or timeliness of placement.

(e) The nursing home must be a functionally accessible unit for the Veteran, and be in accordance with the current Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA). In discharge planning, the SCI team needs to make every reasonable effort, by assurances and report, that essential equipment (e.g., lifts, bowel-care chairs, gurneys, etc.) is appropriately maintained and configured for the Veteran.

(f) The nursing home must provide for an appropriate and full-range of support, and rehabilitative services as needed by the Veteran. Clinical negotiations must be used to meet the individual needs of Veterans with SCI/D.

(g) The nursing home must conform to all required state and Federal regulations.

(h) The nursing home referral is to include a summary of the interdisciplinary team's recommendations on the specific services and resources that the Veteran requires to maintain functional status, achieve maximal independence, reduce social role limitation, and enhance quality of life.

(i) During the pre-placement planning process, the review of the needs and expected outcomes of the Veteran with SCI/D needs to be compared to the expertise that can be provided by the nursing home. Before the prospective nursing home placement, a site visit by members of the SCI/D team with appropriate clinical qualifications may be made to verify that the nursing home provides the level of care needed by the individual. The Veteran's guardian, the appointed Veteran's advocate, representative and/or family members will be encouraged to visit the nursing home during the planning process.

(j) SCI/D personnel are to maintain a pro-active educational approach to the care of Veterans with SCI/D in community nursing homes. Appropriate educational activities may include offering educational brochures, training sessions, and consultative visits.

(k) The placement plan must include the designated SCI/D health care provider who is the point-of-health-care-contact for nursing home personnel. Within the parameters of the nursing home's policies regarding credentialing and privileging, recommendations of SCI/D specific care and expected outcomes are to be monitored. Reports of contact or progress notes are to be included in the Veteran's VA medical record. The SCI/D provider serves as a specialty resource on a regular recurring (preferably at least monthly) basis with the frequency of contact based on the Veteran's clinical condition.

(l) Veterans who develop urgent medical conditions need to be transferred to an appropriate medical center.

(m) The designated SCI Center needs to continue to offer comprehensive preventive health evaluations, acute care, and follow-up care as needed.

h. **Mental Health Services**. Mental Health services are provided and/or coordinated throughout the SCI/D System of Care. Attention to safety, confidentiality, privacy, and advocacy in removing communication, attitudinal, and access barriers is essential. Annual evaluations include psychological, social, and vocational assessments, including vocational rehabilitation potential and/or readiness, social role participation, sexuality, quality of life, behavioral and mental health status, chemical dependency and/or use, living environment, and attendant training needs. Referrals are made to Mental Health programs on an as-needed basis and are facilitated by the SCI Support Clinic or SCI/D PCT.

i. **Home-Based Primary Care (HBPC) Services at Non-SCI Centers**. The HBPC program is an appropriate referral source at non-SCI Centers for enrolled Veterans. The training of the caregiver in maintaining the Veteran in the community is an important service HBPC can furnish. Encouragement to work with this population may be fostered by periodic contacts by the SCI Support Clinic or SCI PCT with the HBPC Coordinator. Follow-up, coordination, and referral by the SCI Coordinator with the HBPC Coordinator for special procedures beyond the capacity of the HBPC team are important factors for successful home living. ***NOTE:*** *Consideration is given to the developed treatment plan and objectives in consultation with the SCI/D Support Clinic or SCI/D PCT.*

j. **Peer Counseling Services, Programs, and Referrals**. Peer counseling services and programs are provided directly or through referrals to Veterans Service Organizations (VSO), community-based peer counseling programs, etc. VA or community-based peer counseling programs assist Veterans with SCI/D and their family adjust to new onset disability; understand the rehabilitation process; develop new social skills and relationships; and transition to community living. Peer counselors serve as role models by sharing experiences and practical suggestions regarding living with a disability, listening to the concerns of the individual, and responding in such a way as to facilitate the rehabilitation process and enhance quality of life.

(1) **Coordinator for Peer Counseling.** The coordinator for peer counseling services, programs, or referrals must be an SCI social worker or psychologist. When the SCI Center provides peer counseling services rather than establishing links or referrals with other peer counseling services and programs, the coordinator recruits, screens, and trains persons to:

(a) Serve as peer counselors;

(b) Identify appropriate Veterans for participation;

I Monitor the involvement of peer counselors;

(d) Serve as the liaison between peer counselors, community peer counselors, and Voluntary Service; and

(e) Communicate issues and problems to the Chief, SCI Service.

(2) **Role Models.** It has been demonstrated that peer counseling is an effective approach in helping Veterans with SCI/D adapt to their injuries. Many times talking with "someone who has been there" offers the Veteran some insight and practical suggestions in dealing with a variety of problems. It is important to use good role models (e.g., Veterans who are employed, involved in meaningful and productive daily routines, involved in successful interpersonal relationships, and who have a generally constructive lifestyle). ***NOTE:*** *Referrals to community support groups (such as VSOs, Able-Disabled) are also a viable option.*

k. **Nutrition**. The Veteran with SCI/D is predisposed to obesity since activity is often limited following paralysis. Other nutrition-related complications, such as cardiovascular disease, are not unique to the SCI population, but may be more prevalent and develop earlier in life. Follow-up needs include nutritional assessment, monitoring, intervention, and education.

l. **Prosthetic Appliances and Medical Equipment**. The Veteran's prosthetic appliances and medical equipment need to be evaluated on a regular basis and must address health needs and the home situation. Appliances and equipment may also need repair or replacement. Referral to the SCI Center, SCI Support Clinic or SCI PCT for a determination of medical need and a prescription for appliances or equipment is appropriate. Evaluation and specification for prosthetic items must be accomplished by individuals with the relevant clinical and technical knowledge. To help obtain the most appropriate appliances for eligible Veterans, personnel from the SCI Center are to prescribe technological and complex equipment.

m. **Vocational Rehabilitation**. Vocational rehabilitation services must be provided as an integral part of treatment planning. Referral to the Vocational Rehabilitation Specialist or Supported Employment Specialist for vocational rehabilitation, counseling, psychology, state vocational rehabilitation programs, and programs available through the Veterans Benefits Administration (VBA) (see title 38 Code of Federal Regulations (CFR) Chapter 31 (Service-connected (SC)), and Chapter 33 (GI Bill) for both the SC and non-service connected (NSC) Veteran is indicated. ***NOTE:*** *Contact with state rehabilitation programs to identify additional resources is recommended.*

n. **Recreation Therapy**. Referrals to therapeutic recreation services are essential to improve and enrich bio-psycho-social functioning through active therapy and/or meaningful therapeutic activities to maintain or improve functional independence and life quality. The intended outcome of the service is independence in life activities based upon patient/resident needs and goals. ***NOTE:*** *There are organized wheelchair sports associations on local and national levels that may also be referral sources. Fabrication of adaptive appliances (e.g., mouth sticks for typing, painting, or writing splints) and specialized equipment (e.g., sports wheelchair) may be useful in recreational pursuits.*

o. **Family and Significant Others**. It is important to assess and respond to the impact of the SCI/D on the Veteran's family and significant others. Many families need ongoing support regarding the changes in their lifestyles because of the Veteran's injury. SCI Social Workers are available to support and assist families of Veterans with SCI/D. Support groups for spouses and families are beneficial. Arrangements for respite care may be needed, especially where the family member is a full-time caregiver. Adult day care or temporary caregiver services may be used.

18. VA HOME MODIFICATION PROGRAMS

The need for structural modification of the Veteran's home and appropriateness of medical equipment for use in the home is to be evaluated by an SCI therapist and prosthetic representative. An on-site evaluation is recommended as needed. When the Veteran has a medical need for home modifications or equipment, referral to the Medical Center's Home Improvements and Structural Alterations Grant (HISA) Committee or Prosthetic Service for assistance needs to be made according to guidance in VHA Handbook 1173.14.

a. An evaluation of home accessibility must be conducted before the discharge of an individual with a new SCI/D, and for other patients, when home accessibility issues are identified. Individuals with knowledge and training in home evaluations will complete the evaluation. ***NOTE:*** *Arrangements with staff at non-SCI Center medical facilities may be needed to accomplish home evaluations and transition planning.*

b. For Veterans with disabilities, VA has three main grant programs to assist with necessary home modifications.

(1) **Specially Adapted Housing Grant (SAH).** Veterans who have specific service-connected disabilities may be entitled to a grant for the purpose of constructing an adapted home, or modifying an existing home to meet their adaptive needs. The SAH grant is generally used to create a wheelchair accessible home and is currently limited to $63,780, and is adjusted every October. This grant amount is reviewed and adjusted annually in October.

(2) **Special Housing Adaptation Grant (SHA).** Veterans who have specific service-connected disabilities may be entitled to a grant for the purpose of modifying an existing home to meet their adaptive needs. The SHA grant is generally used to assist Veterans with mobility throughout their homes. This grant is currently limited to $10,000.

(3) **Home Improvement Structural Alterations Grant (HISA) Grant.** Veterans with service-connected or non-service connected disabilities may receive assistance for any home improvement necessary for the continuation of treatment or for disability access to the home, and essential lavatory and sanitary facilities. A HISA grant is available to Veterans who have received a medical determination indicating that improvements and structural alterations are necessary or appropriate for the effective and economical treatment of the Veteran's disability. In addition to a HISA grant, a Veteran can receive either a SHA or SAH grant.

19. PERSONAL CARE ATTENDANTS (PCA)

Recruitment, training, and retention of good PCAs present ongoing problems for the Veteran with SCI/D. Veterans must be trained in meeting specific care needs so that they can in turn train their own personal care attendants. Possible resources for finding attendants include: local nursing schools, churches, employment agencies, and advertisements in newspapers and magazines. It is important that the Veteran develop a back-up plan for care in case the Veteran’s PCA is not available to provide services. Veterans are provided training and assistance to assume responsibility for interviewing, hiring, and training PCAs.

20. FEE BASIS SERVICES

a. **Bowel and Bladder Care**. Bowel and bladder care for certain Veterans with SCI/D are considered supportive medical services due to the possibility of medical complications which would result in the need for hospitalization. The clinic of jurisdiction, or medical facility, authorizes such care under the fee-basis program to enrolled Veterans with SCI/D who are dependent upon others for bowel and bladder care while residing in the community. ***NOTE:*** *Fee-Basis SCI/D bladder and bowel care were previously described in M-1, Part 1, Chapter 18.*

b. **Authorizations for Care**. Recommendations from the nearest SCI Center should be obtained before medical services for bowel and bladder care are denied to any Veteran with SCI/D. When bowel and bladder care is not desired or cannot be procured through a skilled licensed provider, an individual may serve as a home health attendant and receive reimbursement for provision of this care, only when trained by VHA personnel or the Veteran is trained in attendant care management, and care is overseen by VHA personnel. A relative (by blood or marriage) of a Veteran in the fee-basis program is not to be excluded from treating the Veteran for a fee, as long as professional and training requirements are met. Reimbursement does not exceed the 5th step of the General Schedule hourly rate paid to nursing assistants providing this care at a VA medical center. In no instance shall fee-basis bowel and bladder care be authorized for a Veteran who can perform this function unassisted. Bowel and bladder care at VA expense may be authorized for all Veterans based on clinical need, including those receiving Aid and Attendance benefits.

21. TELEHEALTH SERVICES

The majority of SCI Centers and SCI/D Support Clinics or SCI/D PCTs have dedicated telehealth equipment to enhance care and address access problems, transportation difficulties, and unique SCI/D-related health issues. VHA utilizes health informatics, disease management and telehealth technologies to extend and enhance care and case management of Veterans. The Office of Telehealth Services (OTS) oversees the formulation of policies and implementation of procedures for telehealth-supported care in VHA.

a. **Telehealth modalities used in VHA include**:

(1) **Clinical-Video Telehealth (CVT).** CVT involves real-time videoconferencing technologies to provide specialty consultation between SCI Center and SCI/D Support Clinic or SCI/D PCT sites.

(2) **Care Coordination/Home Telehealth (CCHT).** CCHT monitors patients at home using home telehealth technologies in order to enhance non-institutional care and management of chronic conditions. Home Telehealth technologies include the use of telemonitoring devices for clinical encounters between medical facilities' and Veterans' homes, and home telehealth data messaging devices can be preloaded with an SCI Disease Management Program (DMP).

(3) **Care Coordination/Store and Forward (CCSF) Telehealth.** CCSF uses technologies to acquire and store clinical information (e.g. data, image, sound, video) that is then forwarded to (or retrieved by) another site for clinical evaluation.

b. VHA SCI/D Services and OTS collaborate to develop and maintain telehealth programs that address the specific needs of Veterans with SCI/D. SCI Center and SCI Support Clinic or SCI PCT telehealth programs must ensure that clinical, business, and technical processes are aligned with medical facility and VISN telehealth leadership policies and procedures, in accordance with VHA OTS standards, known as Condition of Participation (CoP) requirements.

22. TRANSPORTATION

Transportation is a critical element in improving the quality of life for the Veteran with SCI/D; otherwise, the Veteran is essentially homebound.

a. **Driving Evaluation and Management Services.** Driving evaluation and management services are available for Veterans with SCI/D at VHA's Driver Rehabilitation Programs. Highly specialized driving adaptations, such as uni- or joystick controls, may only be available at a Driver Rehabilitation Program that is associated with an SCI Center.

b. **Referrals for Driver Training.** If the Veteran has not had driver training and is capable of operating a motor vehicle, referral to the nearest SCI Center or medical center with a formal driver training program is appropriate. Requests for adaptive equipment must be referred to the Prosthetics and Sensory Aids Service (PSAS) for action and disposition.

c. **Travel.** Veterans requesting mileage reimbursement or in need of special mode transportation in relation to their VA medical treatment need to be referred to the Beneficiary Travel department for eligibility determination. Travel eligibility is based upon title 38 CFR Part 70. For those not meeting travel eligibility or for travel unrelated to medical care, public transportation and community resources should be explored (e.g., public transit, American Red Cross, local churches, etc).

23. INCOME

An assessment of the Veteran's present and anticipated income is needed for financial planning. Referrals to a Veterans Benefits Counselor, Social Security Administration, Supplemental Social Security Income, Aid to Families with Dependent Children, and other state and community resources may be indicated.

24. BENEFITS

Some VA benefits to which Veterans with SCI/D may be entitled include: compensation, pension, higher aid and attendance for those who require daily skilled care, car grants, adaptive automotive equipment, home grants, clothing allowance, educational benefits, HISA programs, and life insurance premium waivers. ***NOTE:*** *Veterans who express an interest in any of these benefits or who may be entitled to additional benefits need to be referred to the VA Veterans Benefits Counselor or to a Veterans Service Organization (VSO) with knowledge of the benefits specific to SCI/D issues.*

25. HOUSING

Wheelchair accessible housing is limited in many communities. In addition to traditional single family dwellings, other options to consider include: group homes (several Veterans

sharing residence); cluster housing (several Veterans living in the same vicinity, i.e., apartment complex and sharing attendants); and the use of VA residential care homes. The local Housing Authority may be a resource for wheelchair accessible housing.

26. ENROLLMENT

Veterans with SCI/D who apply for care within VHA and are assigned to enrollment groups 5 through 8 should be offered a Catastrophically Disabled Veteran Evaluation by VHA SCI designated staff for consideration and possible re-assignment to enrollment group 4, as catastrophically disabled. SCI Coordinators and SCI Center Social Workers should work with VA eligibility/enrollment staff to facilitate these evaluations for new applicants or change in enrollment status for existing Veterans in the SCI Hub and Spoke system of care.

27. HEALTH CARE MANAGEMENT ISSUES THROUGHOUT THE CONTINUUM OF CARE

a. **Referral Guidelines.** Referral guidelines below are provided for conditions that should be treated in the SCI Center. These conditions and diagnostic procedures, along with all major surgeries, should only be provided in the SCI Center since specialized knowledge is required or there is significant risk of adverse outcomes. In addition to the list below, please reference Section 13.i. SCI Comprehensive Preventive Health Evaluation, of this Handbook, for additional information regarding care to be provided in the SCI Center.

(1) Amputation;

(2) Annual evaluation (SCI Comprehensive Preventive Health Evaluation);

(3) Autonomic dysreflexia – complex, persistent, does not resolve after appropriate interventions;

(4) Baclofen pump trial;

(5) Bladder stone(s);

(6) Colonoscopy and preparation;

(7) Fertility services;

(8) Malignancy - new onset;

(9) Impaction – unresponsive to simple interventions;

(10) Neurologic level and/or impairment deterioration;

(11) Pain – chronic, initial evaluation, comprehensive management program;

(12) Post-surgical care after emergency surgeries;

(13) Pressure mapping, seating;

(14) Pressure ulcer initial assessment and management – Grades III and IV;

(15) Pressure ulcer debridement;

(16) Rectal bleeding – evaluation and treatment;

(17) Rehabilitation (Acute);

(18) Renal stone;

(19) SCI/D – new onset;

(20) Seating evaluation;

(21) Sexual functioning and sexuality;

(22) Sigmoidoscopy;

(23) Spasticity and/or spasm – initial evaluation, change in spasticity and management;

(24) Surgery - all non-emergent genitourinary, plastic, orthopedic, general, and neuro-surgeries;

(25) Ureteral stones;

(26) Urinary tract issue – complex;

(27) Urodynamic studies; and

(28) Wheelchair assessment and prescription.

b. **Medical Record Management**. Due to the complexity of medical problems of Veterans with SCI/D, all written and imaging records must be maintained for the life of the patient.

c. **Infection Control**. Policies as described by VHA Office of Public Health and Environmental Standards, facility level, and/or SCI Service guidelines for the practice of body substance isolation and effective infection control must be used in the care of this population.

d. **Communication between SCI/D Support Clinic or SCI/D PCT and SCI Center.** It is important that providers in SCI/D PCTs are aware of the unique conditions and problems that Veterans with SCI/D may develop related to the underlying spinal cord dysfunction. Some of these conditions can be life-threatening (e.g., autonomic dysreflexia). There are also unique aspects of SCI/D that result in diagnostic challenges (e.g., lack of sensation may result in no or subtle symptoms during an acute abdomen). The following illustrative examples underscore the need to understand these unique issues and importance of close collaboration and communication between SCI/D Support Clinic or SCI/D PCTs and SCI Centers.

(1) **Sensory Impairments.** Sensory impairments result in diagnostic challenges below the level of neurologic injury. In Veterans with SCI/D, there may be no pain during cardiac ischemia (with neurologic level above T2). There may be no symptoms during cholecystitis (with neurologic level above the mid-thoracic level) or nephrolithiasis. Burns and fractures may not result in typical symptoms or pain. Provocative tests such as abdominal tenderness during palpation or rebound may be absent. Urinary tract infection is often without dysuria. Painful symptoms and signs of joint pathology may be absent (e.g., arthritis, infection, Charcot joint) below the level of injury.

(2) **Autonomic Dysreflexia.** Despite the lack of symptoms, nociception may result in autonomic dysreflexia for individuals with a neurologic level at or above T6. This is critically important to understand in treating autonomic dysreflexia and in anticipating problems following trauma, during illness, and during diagnostic tests. Treatment of autonomic dysreflexia is well described in the Consortium for Spinal Cord Medicine's clinical practice guideline titled Acute Management of Autonomic Dysreflexia. Severe autonomic dysreflexia may occur during diagnostic tests, and procedures such as cystoscopy, colonoscopy, and arthroscopy. Autonomic dysreflexia may persist following burns, fractures, the development of pressure ulcers, and surgical procedures. Distending a hollow viscus may result in severe autonomic dysreflexia. For example, clamping a Foley catheter or distending the colon with barium or air may result in life-threatening hypertension. Worsening neurological symptoms such as sensation, strength, pain, or spasticity require immediate attention and referral to the SCI Center. Conditions rarely seen in the general population may occur much more frequently in the SCI/D population, such as post-traumatic syringomyelia and tethering of the spinal cord.

(3) **Musculoskeletal Problems.** New musculoskeletal problems need to be referred to the SCI Center. What may be a relatively minor symptom or problem in someone without an SCI/D is often a serious, challenging problem in a person with SCI/D. For example, rotator cuff tendinitis in a Veteran with paraplegia can cause difficulties with transfers, pressure releases, and wheelchair pushing. Rehabilitation, change in technique, and new equipment may be necessary following the onset of new upper limb pain. Seemingly straight-forward problems may be signs of distant pathology (e.g., syringomyelia presenting as shoulder or neck pain). New spine problems (e.g., instrumentation failure, progressive scoliosis, Charcot joint) are difficult to diagnose and treat.

(4) **Neurogenic Bowel.** Diagnosis and management of problems related to neurogenic bowel often require subspecialty care and/or input from an expert provider. Since management of the neurogenic bowel involves diet, fluid intake, activity, medications, a bowel program, and specialized equipment, optimal care often requires close communication and coordination between the SCI/D Support Clinic or SCI/D PCT and SCI Center. An apparently simple problem such as diarrhea might be a symptom of impaction. Diarrhea in a person with SCI/D is also complicated by lack of sensation, difficulty in transferring to a commode repeatedly, difficulties to clean up and change clothes repeatedly, and the risk of skin breakdown. A straight-forward prep for colonoscopy is complicated in a person with SCI/D because there may be multiple episodes of incontinence, episodes of autonomic dysreflexia, and no sensation of stool evacuation. Gastroenterological procedures involving the use of barium are to be avoided due to changes in motility and the difficulties involved in clearing contrast medium from the gastrointestinal tract.

(5) **Pulmonary Issues.** The treatment of pulmonary issues, particularly in Veterans with SCI/D with impaired cough, can be problematic. Impaired cough is a result of paralysis that involves expiratory muscles. Mid-thoracic neurologic injuries and tetraplegia often result in impaired cough resulting in difficulty clearing secretions. Relatively simple upper respiratory infections may result in lower respiratory complications. People with tetraplegia often have unopposed parasympathetic innervation of the bronchial tree resulting in bronchoconstriction. Atelectasis, mucus plugging, and respiratory failure may occur in Veterans with higher level injuries. Techniques such as assisted cough and postural drainage along with specialized equipment (e.g., Cough Assist Mechanical Insufflator-Exsufflator) are often needed.

(6) **Urinary Tract Complications.** The assessment and treatment of urinary tract complications are often complex and require subspecialty care by physicians and nurses who are experts in Urology and Spinal Cord Medicine. Complex urinary tract problems (e.g., new onset hydronephrosis, recurrent urinary tract infections (UTI), nephrolithiasis, and progressive renal insufficiency) often require specialized diagnostic tests (e.g., urodynamics), trained staff (e.g., transfers and positioning of a person with SCI/D for urodynamics or cystoscopy is often difficult), and close surveillance for complications such as autonomic dysreflexia. Determinations of optimal bladder management (e.g., intermittent catheterization, indwelling catheterization, reflex voiding), botulinum toxin injections, sphincterotomy, the use of electrical stimulation, bladder augmentation, urinary diversion, and other urologic procedures must occur in the SCI Center. Frequent and recurrent urinary stone formation requires systematic and periodic evaluations. Uro-endoscopy and lithotripsy have markedly decreased the indications and need for open surgery.

(7) **Collaboration.** Close collaboration between SCI/D Support Clinic or SCI/D PCTs (in a non-SCI Center facility) and SCI Centers is important in the ongoing care for Veterans with SCI/D. Often, a care plan will be developed in the SCI Center and follow-up care will be shared between the SCI/D Support Clinic or SCI/D PCT and SCI Center. For example, developing a comprehensive treatment program for chronic neuropathic pain must occur in the SCI Center, however, assessment of changes and treatment over time may involve both settings. The assessment and treatment of spasticity, pressure ulcers, choosing and modifying a wheelchair, pressure mapping, and seating are initiated in the SCI Center and frequently followed in both settings. Close communication between the SCI Support Clinic or SCI/D PCT and SCI Center are critically important in all of these cases as it results in the best possible care for Veterans with SCI/D.

(8) **New Onset or Initial Evaluation.** Veterans with new onset SCI/D or who are new to VA's health care system need to be referred to an SCI Center. Each Veteran with SCI/D must be offered an annual evaluation in the SCI Center where an interdisciplinary assessment is performed (physical therapy, occupational therapy, therapeutic recreation, social work, psychology, vocational counselor, nurse, physician, etc.) and where sub-specialists are available for consultation (e.g., plastic surgery, urology, neurosurgery, orthopedics, etc.).

APPENDIX A

SPINAL CORD INJURY (SCI) CENTER CATCHMENT AREAS

SCI CENTER	VISN	Station #	Facility	CITY	ST
New Mexico VA Health Care System, Albuquerque	**18**	501	**New Mexico VA Health Care System**	**Albuquerque**	**NM**
	18	504	Amarillo VA Health Care System	Amarillo	TX
	18	519	West Texas VA Health Care System	Big Spring	TX
	18	756	El Paso VA Health Care System	El Paso	TX
	19	442	Cheyenne VAMC	Cheyenne	WY
	19	554	Eastern Colorado Health Care System	Denver	CO
	19	575	Grand Junction VAMC	Grand Junction	CO
	19	660	VA Salt Lake City Health Care System	Salt Lake City	UT
Charlie Norwood VA Medical Center, Augusta	**7**	**509**	**Charlie Norwood VA Medical Center**	**Augusta**	**GA**
	6	637	Asheville VAMC	Asheville	NC
	7	508	Atlanta VAMC	Decatur	GA
	7	534	Ralph H. Johnson VAMC	Charleston	SC
	7	544	William Jennings Bryan Dorn VAMC	Columbia	SC
	7	557	Carl Vinson VAMC	Dublin	GA
	7	619	Central Alabama Veterans Health Care System	Montgomery	AL
	7	619A4	Central Alabama Veterans Health Care System	Tuskegee	AL
	9	621	James H. Quillen VAMC	Mountain Home	TN
VA Boston Healthcare System, Brockton/West Roxbury	**1**	**523**	**VA Boston Healthcare System**	**Brockton/West Roxbury**	**MA**
	1	402	Togus VAMC	Togus	ME
	1	405	White River Junction VAMC	White River	VT
	1	518	Edith Nourse Rogers Memorial Veterans Hospital	Bedford	MA
	1	608	Manchester VAMC	Manchester	NH
	1	631	Northampton VAMC	Northampton	MA
	1	650	Providence VAMC	Providence	RI
	1	689	VA Connecticut Health Care System	West Haven	CT
	1	689A4	VA Connecticut Health Care System	Newington	CT
James J. Peters VAMC, Bronx	**3**	526	**James J. Peters VAMC**	**Bronx**	**NY**
	2	528A5	Canandaigua VAMC	Canandaigua	NY
	2	528A6	Bath VAMC	Bath	NY
	2	528A7	VA Health Care Network Upstate New York at Syracuse	Syracuse	NY
	2	528A8	Samuel S. Stratton VAMC	Albany	NY
	3	620	**VA Hudson Valley Health Care System**	Castle Point/Montrose	NY
	3	630	VA New York Harbor Health Care System	New York	NY
	3	630A4	VA New York Harbor Health Care System	Brooklyn (Poly PL)	NY
	3	632	Northport VAMC	Northport	NY

SCI CENTER	VISN	Station #	Facility	CITY	ST
VA Hudson Valley Health Care System, (assigned to Bronx during construction)	**3**	620	**VA Hudson Valley Health Care System**	**Castle Point/Montrose**	NY
	2	528A5	Canandaigua VAMC	Canandaigua	NY
	2	528A6	Bath VAMC	Bath	NY
	2	528A7	VA Health Care Network Upstate New York at Syracuse	Syracuse	NY
	2	528A8	Samuel S. Stratton VAMC	Albany	NY
Louis Stokes Cleveland VAMC	**10**	541	**Louis Stokes Cleveland VAMC**	**Cleveland - Wade Park & Brecksville**	**OH**
	2	528	VA Western New York Health Care System	Buffalo	NY
	2	528A4	VA Western New York Health Care System	Batavia	NY
	4	503	James E. Van Zandt VAMC	Altoona	PA
	4	529	Butler VAMC	Butler	PA
	4	562	Erie VAMC	Erie	PA
	4	646	VA Pittsburgh Health Care System	Pittsburgh	PA
	10	538	Chillicothe VAMC	Chillicothe	OH
	10	539	Cincinnati VAMC	Cincinnati	OH
	10	552	Dayton VAMC	Dayton	OH
	10	757	Chalmers P. Wylie VA Ambulatory Care Center	Columbus	OH
	11	506	VA Ann Arbor Healthcare System	Ann Arbor	MI
	11	553	John D. Dingell VAMC	Detroit	MI
VA North Texas Health Care System, Dallas	**17**	549	**VA North Texas Health Care System**	**Dallas**	**TX**
	17	549A4	VA North Texas Health Care System	Bonham	TX
	17	674A4	Central Texas Veterans Health Care System	Waco	TX
VA New Jersey Health Care System	**3**	561	**VA New Jersey Health Care System**	**Lyons/East Orange**	**NJ**
	4	542	Coatesville VAMC	Coatesville	PA
	4	595	Lebanon VAMC	Lebanon	PA
	4	642	Philadelphia VAMC	Philadelphia	PA
	4	693	Wilkes-Barre VAMC	Wilkes Barre	PA
Hampton VAMC	**6**	590	**Hampton VAMC**	**Hampton**	**VA**
Edward Hines, Jr. VA Hospital, Hines	**12**	578	**Edward Hines, Jr. VA Hospital**	**Hines**	**IL**
	11	515	Battle Creek VAMC	Battle Creek	MI
	11	550	VA Illiana Health Care System	Danville	IL
	11	583	Richard L. Roudebush VAMC	Indiannapolis	IN
	11	610	VA Northern Indiana Health Care System	Fort Wayne	IN
	11	610A	VA Northern Indiana Health Care System	Marion	IN
	11	655	Aleda E. Lutz VAMC	Saginaw	MI
	12	537	Jesse Brown VAMC	Chicago	IL
	12	556	North Chicago VAMC	North Chicago	IL
	19	666	Sheridan VAMC	Sheriday	WY

SCI CENTER	VISN	Station #	Facility	CITY	ST
Michael E. Debakey VAMC, Houston	**16**	580	**Michael E. Debakey VAMC**	**Houston**	**TX**
	16	502	Alexandria VAMC	Alexandria	LA
	16	520	VA Gulf Coast Veterans Health Care System	Biloxi	MS
	16	629	Southeast Louisiana Veterans Health Care System	New Orleans	LA
	16	635	Oklahoma City VAMC	Oklahoma City	OK
	16	667	Overton Brooks VAMC	Shreveport	LA
VA Long Beach Health Care System	**22**	600	**VA Long Beach Health Care System**	**Long Beach**	**CA**
	22	593	VA Southern Nevada Health Care System	Las Vegas	NV
	22	605	VA Loma Linda Health Care System	Loma Linda	CA
	22	691	VA Greater Los Angeles Health Care System	Los Angeles	CA
	22	691A4	VA Greater Los Angeles Health Care System	Sepulveda	CA
Memphis VAMC	**9**	614	**Memphis VAMC**	**Memphis**	**TN**
	7	521	Birmingham VAMC	Birmingham	AL
	7	679	Tuscaloosa VAMC	Tuscaloosa	AL
	9	626	VA Tennessee Valley Health Care System	Nashville	TN
	9	626A4	VA Tennessee Valley Health Care System	Murfreesboro	TN
	16	564	Fayetteville, AR VAMC	Fayetteville	AR
	16	586	G.V. (Sonny) Montgomery VAMC	Jackson	MS
	16	598	Central Arkansas Veterans Health Care System	Little Rock	AR
	16	598	Central Arkansas Veterans Health Care System	North Little Rock	AR
	16	623	Jack C. Montgomery VAMC	Muskogee	OK
VA Health Care System, Miami	**8**	546	**Miami VA Health Care System**	**Miami**	**FL**
	8	548	West Palm Beach VAMC	West Palm Beach	FL
Clement J. Zablocki VAMC, Milwaukee	**12**	695	**Clement J. Zablocki VAMC**	**Milwaukee/Wood**	**WI**
	12	585	Iron Mountain VAMC	Iron Mountain	MI
	12	607	William S. Middleton Memorial Veterans Hospital	Madison	WI
	12	676	Tomah VAMC	Tomah	WI
Minneapolis VAMC	**23**	618	**Minneapolis VAMC**	**Minneapolis**	**MN**
	23	437	Fargo VAMC	Fargo	ND
	23	438	Sioux Falls VAMC	Sioux Falls	SD
	23	568	VA Black Hills Health Care System	Fort Meade	SD
	23	568A4	VA Black Hills Health Care System	Hot Springs	SD
	23	636	VA Nebraska-Western Iowa Health Care System	Omaha	NE
	23	636A4	VA Nebraska-Western Iowa Health Care System	Grand Island	NE
	23	636A5	VA Nebraska-Western Iowa Health Care System	Lincoln	NE
	23	636A6	VA Central Iowa Health Care System	Des Moines/Knoxville	IA
	23	636A8	VA Iowa City Health Care System	Iowa City	IA
	23	656	St. Cloud VAMC	St. Cloud	MN
VA Palo Alto Health Care System	**21**	640	**VA Palo Alto Health Care System**	**Palo Alto**	**CA**
	21	358	Manila Outpatient Clinic	Manila	PI
	21	459	VA Pacific Islands Health Care System	Honolulu	HI
	21	570	VA Central California Health Care System	Fresno	CA
	21	612	VA Northern California Health Care System	Martinez/Sacramento	CA
	21	654	Sierra Nevada Health Care System	Reno	NV
	21	662	San Francisco VAMC	San Francisco	CA

SCI CENTER	VISN	Station #	Facility	CITY	ST
Hunter Holmes McGuire VAMC, Richmond	**6**	**652**	**Hunter Holmes McGuire VAMC**	**Richmond**	**VA**
	4	460	Wilmington VAMC	Wilmington	DE
	4	540	Louis A. Johnson VAMC	Clarksburg	WV
	5	512	VA Maryland Health Care System	Baltimore	MD
	5	613	Martinsburg VAMC	Martinsburg	WV
	5	688	Washington, DC VAMC	Washington	DC
	6	517	Beckley VAMC	Beckley	WV
	6	558	Durham VAMC	Durham	NC
	6	565	Fayetteville VAMC	Fayetteville	NC
	6	658	Salem VAMC	Salem	VA
	6	659	W.G. (Bill) Hefner VAMC	Salisbury	NC
	9	581	Huntington VAMC	Huntington	WV
South Texas Veterans Health Care System, San Antonio	**17**	671	**South Texas Veterans Health Care System**	**San Antonio**	**TX**
	17	671A4	South Texas Veterans Health Care System	Kerrville	TX
	17	674	Central Texas Veterans Health Care System	Temple	TX
VA San Diego Health Care System	**22**	664	**VA San Diego Health Care System**	**San Diego**	**CA**
	18	644	Carl T. Hayden VAMC	Phoenix	AZ
	18	649	Northern Arizona VA Health Care System	Prescott	AZ
	18	678	Southern Arizona VA Health Care System	Tucson	AZ
VA Caribbean Health Care System, San Juan	**8**	**672**	**VA Caribbean Health Care System**	**San Juan**	**PR**
VA Puget Sound Health Care System, Seattle	**20**	663	**VA Puget Sound Health Care System**	**Seattle/American Lake**	**WA**
	19	436	VA Montana Health Care System	Fort Harrison	MT
	20	463	Alaska VA Health Care System	Anchorage	AK
	20	531	Boise VAMC	Boise	ID
	20	648	Portland VAMC	Portland/Vancouver	OR
	20	653	VA Roseburg Health Care System	Roseburg	OR
	20	668	Spokane VAMC	Spokane	WA
	20	687	Jonathan M. Wainwright Memorial VAMC	Walla Walla	WA
	20	692	VA Southern Oregon Rehabilitation Center and Clinics	White City	OR
St Louis VAMC	**15**	657	**St Louis VAMC**	**St Louis**	**MO**
	9	596	Lexington VAMC	Lexington	KY
	9	603	Louisville VAMC	Louisville	KY
	15	589	Kansas City VAMC	Kansas City	MO
	15	589A4	Harry S. Truman Memorial Veterans' Hospital	Columbia	MO
	15	589A5	VA Eastern Kansas Health Care System	Topeka	KS
	15	589A6	VA Eastern Kansas Health Care System	Leavenworth	KS
	15	589A7	Robert J. Dole VAMC	Wichita	KS
	15	657A4	John J. Pershing VAMC	Poplar Bluff	MO
	15	657A5	Marion VA Health Care System	Marion	IL
James A Haley Veterans' Hospital, Tampa	**8**	673	**James A Haley Veterans' Hospital**	**Tampa**	**FL**
	8	516	Bay Pines VA Health Care System	Bay Pines	FL
	8	573	North Florida/South Georgia Veterans Health System	Gainesville	FL
	8	573A4	North Florida/South Georgia Veterans Health System	Lake City	FL
	8	675	Orlando VAMC	Orlando	FL

APPENDIX B

SPINAL CORD INJURY (SCI) CENTERS ACCEPTING DEPARTMENT OF DEFENSE REFERRALS

1. Department of Veterans Affairs (VA) New Mexico Health Care System (HCS) (128), 1501 San Pedro Southeast, Albuquerque, NM 87108. (505) 256-2849

2. Augusta VA Medical Center (128), One Freedom Way, Augusta, GA 30904-6285. (706) 823-2216

3. VA Boston HCS (128), 1400 VFW Parkway, West Roxbury, MA 02132. (617) 323-7700, extension 5128.

4. VA Medical Center (128), 130 West Kingsbridge Road, Bronx, NY 10468. (718) 584-9000, extension 5423.

5. Louis Stokes VA Medical Center (128W), 10701 East Boulevard, Cleveland, OH 44106. (216) 791-3800, extension 5219.

6. VA North Texas HCS (128), 4500 South Lancaster Road, Dallas, TX 75216. (214) 857-1757.

7. Edward Hines, Jr. VA Medical Center (128), Fifth Avenue and Roosevelt Road, Hines, IL 60141-5000. (708) 202-2241.

8. Houston VA Medical Center (128), 2002 Holcombe Boulevard, Houston, TX 77030-4298. (713) 794-7128.

9. VA Long Beach HCS (128), 5901 East 7th Street, Long Beach, CA 90822. (562) 826-5701.

10. VA Medical Center (128), 1030 Jefferson Avenue, Memphis, TN 38104. (901) 577-7373.

11. VA Medical Center (128), 1201 Northwest 16th Street, Miami, FL 33125. (305) 575-3174.

12. Clement J. Zablocki VA Medical Center (128), 5000 West National Avenue, Milwaukee, WI 53295. (414) 384-2000, extension 41230.

13. Minneapolis VA Medical Center (128), 1 Veterans Drive, Minneapolis, MN 55417. 612-467-3337.

14. VA Palo HCS (128), 3801 Miranda Avenue, Palo Alto, CA 94304. (650) 493-5000 ext 65870.

15. HH McGuire VA Medical Center (128), 1201 Broad Rock Boulevard, Richmond, VA 23249. (804) 675-5282.

16. South Texas Veterans HCS (128), 7400 Meront Minter Blvd., San Antonio, TX 78284. (210) 617-5257.

17. VA San Diego HCS (128), 3350 La Jolla Village Drive, San Diego, CA 92161. (858) 642-3117.

18. VA Medical Center (128), 10 Casia Street, San Juan, PR 00921-3201. (787) 641-7582, extension 14130.

19. VA Puget Sound HCS (128), 1660 South Columbian Way, Seattle, WA 98108-1597. (206) 764-2332.

20. Saint Louis VA Medical Center (128JB), One Jefferson Barracks Drive, St. Louis, MO 63125. (314) 894-6677.

21. James A. Haley VA Medical Center (128), 13000 Bruce B. Downs Blvd., Tampa, FL 33612-4798. (813) 972-2000, extension 6399.

APPENDIX C

SPINAL CORD INJURY (SCI) CENTERS

1. Department of Veterans Affairs (VA) New Mexico Health Care System (HCS) (128), 1501 San Pedro Southeast, Albuquerque, NM 87108.

2. Augusta VA Medical Center (128), One Freedom Way, Augusta, GA 30904-6285.

3. VA Boston HCS (128), 1400 VFW Parkway, West Roxbury, MA 02132.

4. VA Medical Center (128), 130 West Kingsbridge Road, Bronx, NY 10468.

5. VA Hudson Valley HCS (128), Castle Point, NY 12511.

6. Louis Stokes VA Medical Center (128W), 10701 East Boulevard, Cleveland, OH 44106.

7. VA North Texas HCS (128), 4500 South Lancaster Road, Dallas, TX 75216.

8. VA New Jersey HCS (128), 385 Tremont Avenue, East Orange, NJ 07018-1095.

9. VA Medical Center (128), 100 Emancipation Drive, Hampton, VA 23667.

10. Edward Hines, Jr. VA Medical Center (128), Fifth Avenue and Roosevelt Road, Hines, IL 60141-5000.

11. Houston VA Medical Center (128), 2002 Holcombe Boulevard, Houston, TX 77030-4298.

12. VA Long Beach HCS (128), 5901 East 7th Street, Long Beach, CA 90822.

13. VA Medical Center (128), 1030 Jefferson Avenue, Memphis, TN 38104.

14. VA Medical Center (128), 1201 Northwest 16th Street, Miami, FL 33125.

15. Clement J. Zablocki VA Medical Center (128), 5000 West National Avenue, Milwaukee, WI 53295.

16. VA Medical Center (128), 1 Veterans Drive, Minneapolis, MN 55417

17. VA Palo HCS (128), 3801 Miranda Avenue, Palo Alto, CA 94304.

18. HH McGuire VA Medical Center (128), 1201 Broad Rock Boulevard, Richmond, VA 23249.

19. South Texas Veterans HCS (128), 7400 Meront Minter Boulevard, San Antonio, TX 78284.

20. VA San Diego HCS (128), 3350 La Jolla Village Drive, San Diego, CA 92161.

21. VA Medical Center (128), 10 Casia Street, San Juan, PR 00921-3201.

22. VA Puget Sound HCS (128), 1660 South Columbian Way, Seattle, WA 98108-1597.

23. Saint Louis VA Medical Center (128JB), One Jefferson Barracks Drive, St. Louis, MO 63125.

24. James A. Haley VA Medical Center (128), 13000 Bruce B. Downs Boulevard, Tampa, FL 33612-4798.

SPINAL CORD INJURY AND DISORDERS (SCI/D) HUB AND SPOKES GRAPHIC