
Postgraduate Certificate in Spinal Cord Injury Rehabilitation

Rehabilitation Nursing Practice

Acute care – Initial phase of treatment following spinal cord injury (SCI) where medical stabilization, surgical intervention, and prevention of secondary complications are prioritized. Related terms: ICU, post-operative monitoring. Example: A patient with a cervical fracture is transferred to a specialized SCI unit for 48-hour intensive monitoring. Practical application includes vigilant neuro-vascular assessments and early mobilization protocols. Challenges involve coordinating multidisciplinary teams and managing hemodynamic instability.

Activity tolerance – The ability of an individual with SCI to perform physical tasks without undue fatigue or physiological stress. Related terms: cardiopulmonary endurance, functional capacity. Example: Assessing a patient's walking distance on a treadmill to determine safe activity levels. Practical application guides exercise prescription and pacing strategies. Challenges include fluctuating autonomic function and pressure-related pain.

Adverse drug reaction (ADR) – Unintended, harmful response to a medication administered for pain, spasticity, or bladder management in SCI patients. Related terms: pharmacovigilance, drug interaction. Example: Development of severe constipation after initiating high-dose opioid therapy. Practical application requires systematic monitoring, dose adjustment, and alternative analgesics. Challenges are polypharmacy and altered drug metabolism due to reduced muscle mass.

Autonomic dysreflexia (AD) – Potentially life-threatening sympathetic over-activity triggered by nociceptive stimuli below the level of injury, most common in injuries at T6 and above. Related terms: hypertensive crisis, trigger identification. Example: Sudden hypertension and headache when a urinary catheter becomes blocked. Practical application includes patient education on early signs, rapid removal of triggers, and use of antihypertensive agents. Challenges are delayed recognition, especially in individuals with limited sensation.

Bladder management – Strategies to achieve urinary continence, prevent infection, and preserve renal function in SCI. Related terms: intermittent catheterization, urodynamic studies. Example: Teaching a patient to perform clean intermittent catheterization (CIC) every four hours. Practical application involves selecting catheter type, schedule, and monitoring for signs of infection. Challenges include skin integrity, patient dexterity, and access to supplies.

Blood pressure regulation – Maintaining appropriate systemic pressure despite impaired autonomic control after SCI. Related terms: vasomotor tone, orthostatic hypotension. Example: Use of compression stockings and gradual tilt tables to counteract low supine-to-standing blood pressure drops. Practical application guides nursing interventions to prevent syncope. Challenges are unpredictable reflexes and medication side-effects.

Bone health – Preservation of skeletal integrity in SCI where disuse osteopenia accelerates bone loss, especially in the distal femur and tibia. Related terms: DEXA scan, bisphosphonate therapy. Example:

Scheduling a dual-energy X-ray absorptiometry (DEXA) scan at six months post-injury. Practical application includes weight-bearing exercises and calcium/vitamin D supplementation. Challenges are limited mobility and patient adherence.

Braden Scale – Tool used to assess risk of pressure ulcer development in individuals with reduced sensation and mobility. Related terms: risk assessment, skin integrity. Example: Scoring a patient as “high risk” (score ≤ 12) prompts hourly repositioning. Practical application informs selection of pressure-relieving surfaces. Challenges include fluctuating edema and inconsistent documentation.

Caregiver burden – Physical, emotional, and financial strain experienced by family members or aides providing ongoing support to a person with SCI. Related terms: burnout, respite services. Example: A spouse reports fatigue after 12-hour daily assistance with transfers. Practical application involves offering caregiver education, counseling, and community resources. Challenges are limited access to support networks and cultural expectations.

Catheter-associated urinary tract infection (CAUTI) – Infection linked to indwelling urinary catheters, a common complication in SCI. Related terms: sterile technique, biofilm formation. Example: Positive urine culture after five days of Foley catheter use. Practical application includes strict aseptic insertion, routine catheter changes, and monitoring for fever or suprapubic pain. Challenges are recurrent infections and antibiotic resistance.

Central cord syndrome – Incomplete cervical SCI characterized by greater weakness in the upper extremities than lower extremities. Related terms: neurological level, motor recovery. Example: A patient with C5-C6 hyperextension injury retains leg strength but has limited hand function. Practical application guides targeted hand-therapy and functional electrical stimulation. Challenges include prolonged rehabilitation and variable prognosis.

Compression therapy – Use of graduated elastic garments or devices to improve venous return and reduce edema in lower limbs of SCI patients. Related terms: sequential compression devices, lymphedema. Example: Applying 20-30 mmHg stockings during daytime to prevent swelling. Practical application supports skin health and facilitates gait training. Challenges are patient comfort and proper donning technique.

Contracture prevention – Strategies to maintain joint range of motion (ROM) and avoid permanent shortening of muscles and tendons after SCI. Related terms: stretching protocols, positioning splints. Example: Implementing a daily passive stretching routine for the hamstrings. Practical application reduces risk of deformities that impede wheelchair positioning. Challenges include patient spasticity and limited staffing for regular ROM sessions.

Continuous passive motion (CPM) – Mechanical device that moves a joint through a set range without patient effort, used to preserve ROM after surgery or immobilization. Related terms: post-operative care, joint health. Example: A knee CPM machine set at 0-90° for 2 hours daily following posterior spinal fusion. Practical application assists in preventing adhesions. Challenges are patient tolerance and equipment availability.

Core stability – Ability to maintain trunk alignment and control during functional activities, essential for

wheelchair propulsion and transfers. Related terms: abdominal bracing, postural control. Example: Training a patient to engage the transverse abdominis while reaching forward. Practical application improves propulsion efficiency and reduces shoulder overload. Challenges include weakened trunk musculature and altered proprioception.

Decubitus ulcer – Pressure-induced skin breakdown, also known as a pressure sore, commonly occurring over bony prominences in SCI. Related terms: stage classification, wound care. Example: A stage II ulcer over the sacrum identified during routine skin inspection. Practical application includes debridement, appropriate dressings, and off-loading strategies. Challenges are recurrent ulceration and infection.

Denervation atrophy – Muscle wasting that occurs when innervation is lost due to spinal cord transection. Related terms: muscle trophism, electrical stimulation. Example: Rapid loss of quadriceps bulk within weeks of complete T12 injury. Practical application utilizes functional electrical stimulation (FES) to preserve muscle mass. Challenges include patient compliance and equipment cost.

Dermatome mapping – Identification of sensory levels based on cutaneous innervation to determine the neurological level of injury. Related terms: ASIA examination, sensory assessment. Example: Documenting preserved sensation at T10 while absent below. Practical application guides bladder and bowel reflexes. Challenges are inter-examiner variability and fluctuating sensation.

Early mobilization – Initiating movement and weight-bearing activities as soon as medically safe to reduce complications such as deep vein thrombosis (DVT) and deconditioning. Related terms: rehabilitation protocol, transfer training. Example: Assisted sitting on the edge of the bed on post-operative day 2. Practical application improves cardiovascular function and psychological well-being. Challenges include surgical restrictions and hemodynamic instability.

Electrodiagnostic studies – Techniques such as electromyography (EMG) and nerve conduction velocity (NCV) used to assess peripheral nerve integrity after SCI. Related terms: motor unit potential, nerve injury. Example: EMG confirming intact peripheral nerves despite central injury. Practical application aids in differentiating upper motor neuron from peripheral deficits. Challenges are patient discomfort and interpretation expertise.

Emotional support – Psychological assistance provided to individuals coping with the life-changing impact of SCI. Related terms: counseling, peer mentoring. Example: Referral to a psychologist for adjustment disorder after discharge. Practical application improves adherence to rehabilitation and reduces depression. Challenges include stigma and limited mental-health resources.

Enteral nutrition – Delivery of nutrients via feeding tube when oral intake is insufficient or unsafe. Related terms: percutaneous endoscopic gastrostomy (PEG), tube feeding protocols. Example: Initiating continuous jejunal feeds for a patient with severe dysphagia post-cervical injury. Practical application ensures caloric adequacy and prevents aspiration. Challenges are tube displacement and gastrointestinal intolerance.

Evidence-based practice (EBP) – Integration of current research findings with clinical expertise and patient preferences to guide nursing interventions. Related terms: clinical guidelines, research translation. Example: Applying the latest guidelines for spasticity management using oral baclofen. Practical application enhances

care quality and outcomes. Challenges include staying current with rapidly evolving literature.

Exercise prescription – Structured plan of aerobic, resistance, and flexibility activities tailored to the functional level and goals of the person with SCI. Related terms: training intensity, cardiorespiratory fitness. Example: 30-minute arm-ergometer sessions at 60% VO₂max three times per week. Practical application improves endurance and metabolic health. Challenges are fatigue, equipment access, and weather constraints.

Fascia release – Manual therapy technique aimed at reducing soft-tissue restrictions that may contribute to pain or limited ROM in SCI. Related terms: myofascial therapy, soft-tissue mobilization. Example: Applying gentle sustained pressure over the lumbar fascia to alleviate spasticity. Practical application can enhance mobility and comfort. Challenges are therapist skill level and patient tolerance.

Functional independence measure (FIM) – Standardized instrument that assesses a person's level of disability and tracks progress across self-care, mobility, and cognition. Related terms: outcome measurement, rehabilitation goals. Example: A patient improves from a FIM score of 45 to 70 after 12 weeks of therapy. Practical application informs discharge planning and insurance documentation. Challenges include inter-rater reliability and cultural bias.

Gait training – Rehabilitation process that teaches ambulation using assistive devices, orthoses, or robotic exoskeletons for individuals with incomplete SCI. Related terms: body-weight support, over-ground walking. Example: Using a treadmill with 30% body-weight support to practice stepping patterns. Practical application promotes neuroplasticity and independence. Challenges are cardiovascular strain and fear of falling.

General nursing care – Core responsibilities including vital sign monitoring, medication administration, hygiene, and patient education for individuals with SCI. Related terms: clinical routine, patient safety. Example: Conducting a shift-by-shift skin inspection and documenting findings. Practical application ensures early detection of complications. Challenges are high workload and need for specialized knowledge.

Genitourinary complications – Spectrum of problems affecting bladder and sexual function after SCI, such as neurogenic bladder, infections, and erectile dysfunction. Related terms: urodynamics, sexual health. Example: Initiating sacral neuromodulation for refractory urinary incontinence. Practical application improves quality of life and reduces renal damage. Challenges include patient embarrassment and limited specialist services.

Glasgow Coma Scale (GCS) – Tool used to assess consciousness level in patients with traumatic brain injury accompanying SCI. Related terms: neurological assessment, trauma triage. Example: A GCS score of 13 indicates mild head injury requiring observation. Practical application guides imaging decisions and monitoring intensity. Challenges are fluctuating scores and sedation effects.

Hand function rehabilitation – Targeted therapy to restore fine motor skills, grip strength, and dexterity crucial for wheelchair propulsion and ADL. Related terms: occupational therapy, grasp training. Example: Using a therapy putty to improve pinch strength in a patient with C5 injury. Practical application enhances

independence in feeding and personal care. Challenges are spasticity and limited volitional control.

Heat regulation – Management of body temperature in individuals with impaired autonomic control, who cannot sweat below the level of injury. Related terms: thermoregulation, hyperthermia. Example: Advising a patient to avoid hot tubs and to use cooling vests during summer. Practical application prevents heat-related illness. Challenges include environmental exposure and limited feedback.

Home modification – Alterations to the living environment to improve accessibility, safety, and independence for people with SCI. Related terms: universal design, assistive technology. Example: Installing a wheelchair-accessible bathroom with grab bars and a roll-in shower. Practical application facilitates community reintegration. Challenges are cost, zoning regulations, and homeowner willingness.

Hypertension management – Controlling elevated blood pressure episodes, particularly those associated with autonomic dysreflexia. Related terms: antihypertensive agents, blood pressure monitoring. Example: Administering nifedipine sublingually during an AD episode. Practical application reduces risk of stroke and cardiac complications. Challenges include rapid onset of AD and medication side-effects.

Impaired sensation – Loss or alteration of tactile, pain, temperature, and proprioceptive inputs below the neurological level of injury. Related terms: sensory level, neuropathic pain. Example: A T12 injury results in absent sensation in the lower abdomen and legs. Practical application informs positioning, pressure ulcer prevention, and safety education. Challenges are patient dependence on visual cues and increased injury risk.

Infection control – Protocols to prevent spread of pathogens in healthcare settings caring for SCI patients, who are vulnerable due to indwelling devices and skin breakdown. Related terms: hand hygiene, isolation precautions. Example: Using chlorhexidine wipes for catheter site cleaning. Practical application reduces CAUTI and sepsis rates. Challenges include staff compliance and antibiotic stewardship.

Interdisciplinary team (IDT) – Collaborative group of physicians, nurses, therapists, social workers, and others who coordinate comprehensive SCI rehabilitation. Related terms: team meetings, care planning. Example: Weekly IDT conference reviewing progress, setting goals, and adjusting therapy plans. Practical application ensures holistic care and avoids duplication. Challenges are communication barriers and differing professional cultures.

Intensive rehabilitation – High-frequency, goal-oriented therapy delivered in specialized centers to maximize functional recovery after SCI. Related terms: rehab unit, early discharge planning. Example: A 3-week inpatient program with 4-hour daily therapy blocks. Practical application accelerates skill acquisition and reduces long-term disability. Challenges include resource constraints and patient fatigue.

Joint contracture – Permanent limitation of joint movement caused by prolonged immobility, spasticity, or inadequate stretching. Related terms: muscle shortening, orthotic management. Example: A flexion contracture of the elbow limiting wheelchair positioning. Practical application involves serial casting and sustained stretching. Challenges are patient cooperation and chronicity.

Kidney stone prophylaxis – Measures to reduce risk of calculi formation due to urinary stasis, hypercalciuria,

or infection in SCI. Related terms: hydration, urine alkalization. Example: Encouraging 2–3 L fluid intake daily and prescribing potassium citrate. Practical application preserves renal function. Challenges include limited bladder capacity and patient adherence.

Late complications – Long-term health issues that arise months to years after SCI, such as osteoporosis, autonomic dysreflexia, and chronic pain. Related terms: secondary conditions, lifelong monitoring. Example: Development of heterotopic ossification around the hip joint two years post-injury. Practical application includes periodic screening and targeted interventions. Challenges are delayed presentation and cumulative morbidity.

Level of injury (LOI) – Anatomical location on the spinal cord where damage occurs, determining motor and sensory loss extent. Related terms: neurological level, ASIA classification. Example: A T6 complete injury results in paraplegia with preserved upper-body function. Practical application guides prognosis, equipment selection, and therapy focus. Challenges include accurate assessment and variability in recovery.

Leisure and recreation – Activities that promote enjoyment, social interaction, and community participation for individuals with SCI. Related terms: adaptive sports, quality of life. Example: Enrolling a patient in wheelchair basketball league. Practical application improves mental health and physical conditioning. Challenges are accessibility, funding, and transportation.

Limited mobility – Reduced ability to change position or ambulate, leading to secondary health issues. Related terms: wheelchair dependence, sedentary behavior. Example: A patient who spends >20 hours per day seated in a wheelchair. Practical application includes scheduled repositioning and active-assisted exercises. Challenges are patient motivation and staffing ratios.

Magnetic resonance imaging (MRI) – Imaging modality providing detailed visualization of spinal cord, soft tissue, and associated pathology. Related terms: diagnostic imaging, myelopathy. Example: MRI showing cord edema at C4 after a hyperextension injury. Practical application assists surgical planning and prognosis. Challenges are contraindications (e.g., implanted devices) and patient transport.

Massage therapy – Hands-on technique used to reduce muscle spasm, improve circulation, and enhance relaxation in SCI patients. Related terms: myofascial release, pain management. Example: 20-minute therapeutic massage focusing on the posterior shoulder muscles. Practical application may decrease spasticity and improve skin health. Challenges include contraindications in areas with pressure ulcers and limited evidence base.

Medical-surgical complications – Adverse events such as DVT, pulmonary embolism, infections, and wound dehiscence that may arise during SCI rehabilitation. Related terms: risk management, post-operative care. Example: Development of a proximal DVT despite prophylactic anticoagulation. Practical application requires vigilant monitoring, early mobilization, and prompt treatment. Challenges are balancing anticoagulation with bleeding risk.

Mobility aids – Devices that assist in transfers, ambulation, or wheelchair propulsion, including crutches, walkers, and powered exoskeletons. Related terms: assistive technology, gait trainer. Example: Prescription of a forearm-crutch for a patient with a low-lumbar incomplete injury. Practical application enhances

independence and reduces caregiver strain. Challenges are cost, training, and terrain limitations.

Muscle spasticity – Velocity-dependent increase in muscle tone resulting from upper motor neuron injury, common after SCI. Related terms: tone management, baclofen. Example: Hypertonic hamstrings interfering with standing transfers. Practical application includes stretching, oral antispasmodics, and intrathecal baclofen pumps. Challenges are dosing titration and side-effects such as sedation.

Neurogenic bowel – Disruption of normal bowel motility and sphincter control due to spinal cord injury, leading to constipation or incontinence. Related terms: bowel program, digital stimulation. Example: Implementing a timed bowel regimen with suppository use each morning. Practical application improves regularity and reduces abdominal discomfort. Challenges are patient embarrassment and autonomic dysreflexia triggers.

Neurogenic shock – Acute circulatory collapse caused by loss of sympathetic tone immediately after a high spinal cord injury. Related terms: hypotension, bradycardia. Example: A patient with C4 transection presenting with MAP. Neuropathic pain – Chronic pain arising from damaged neural pathways after SCI, often described as burning, stabbing, or electric-shock sensations. Related terms: central sensitization, gabapentin. Example: Persistent below-level burning pain three months post-injury. Practical application includes pharmacologic agents, cognitive-behavioral therapy, and neuromodulation. Challenges are refractory nature and impact on mood.

Occupational therapy (OT) – Rehabilitation discipline focused on enabling participation in daily activities, work, and leisure through adaptive strategies. Related terms: ADL training, assistive devices. Example: Teaching a patient to use a one-handed grooming kit after a cervical injury. Practical application enhances independence and self-esteem. Challenges are limited time and insurance coverage.

Orthostatic hypotension (OH) – Drop in systolic blood pressure ≥ 20 mmHg or diastolic ≥ 10 mmHg upon standing, common after SCI due to autonomic dysfunction. Related terms: postural dizziness, compression stockings. Example: Patient experiences light-headedness when moving from supine to seated. Practical application includes gradual position changes, fluid loading, and medication review. Challenges are unpredictable responses and interference with daily activities.

Outcome measures – Standardized tools used to evaluate functional status, quality of life, and rehabilitation progress in SCI. Related terms: SCIM, SF-36. Example: Using the Spinal Cord Independence Measure (SCIM) to compare baseline and discharge scores. Practical application guides goal setting and program evaluation. Challenges are instrument selection and cultural relevance.

Pain assessment – Systematic evaluation of pain intensity, quality, location, and impact using scales such as the Numeric Rating Scale (NRS) or Visual Analog Scale (VAS). Related terms: pain diary, analgesic ladder. Example: Patient rates neuropathic pain as 7/10 on the NRS. Practical application informs multimodal pain management plans. Challenges include communication barriers and fluctuating pain levels.

Patient education – Structured information delivery to promote self-management, safety, and informed decision-making for individuals with SCI. Related terms: health literacy, teach-back method. Example: Demonstrating proper catheter insertion technique and having the patient repeat the steps. Practical

application improves adherence to bladder programs and reduces complications. Challenges are cognitive deficits and limited retention.

Physical therapy (PT) – Rehabilitation discipline focusing on strengthening, mobility, balance, and functional training for people with SCI. Related terms: therapeutic exercise, gait training. Example: Implementing a progressive resistance program for upper-body muscles to aid wheelchair propulsion. Practical application enhances cardiovascular health and functional independence. Challenges are fatigue and access to specialized equipment.

Pressure redistribution – Strategies to disperse mechanical load over the body surface, preventing tissue ischemia and ulcer formation. Related terms: alternating pressure mattress, repositioning schedule. Example: Using a wheelchair cushion with 30 mmHg pressure reduction and repositioning every 2 hours. Practical application maintains skin integrity and comfort. Challenges are patient compliance and equipment maintenance.

Primary prevention – Measures taken before a complication occurs, focusing on risk factor modification and early intervention. Related terms: screening, prophylaxis. Example: Initiating low-dose aspirin to prevent DVT in a newly injured patient. Practical application reduces incidence of secondary conditions. Challenges include balancing benefits against potential side-effects.

Psychosocial adjustment – Process of adapting emotionally and socially to life after spinal cord injury. Related terms: coping strategies, support groups. Example: Participation in a peer-led SCI support meeting improves self-efficacy. Practical application promotes resilience and reduces depressive symptoms. Challenges are isolation, stigma, and financial stress.

Quadriplegia – Paralysis affecting all four limbs, typically resulting from cervical spinal cord injury. Related terms: tetraplegia, cervical lesion. Example: A C5 injury leading to limited hand function but preserved shoulder movement. Practical application influences wheelchair selection, respiratory support, and caregiver training. Challenges are high dependency and increased risk of respiratory complications.

Range of motion (ROM) – Measurement of joint flexibility, essential for maintaining functional mobility and preventing contractures. Related terms: passive stretching, goniometry. Example: Documenting 0-90° knee flexion using a goniometer. Practical application guides individualized stretching protocols. Challenges are patient discomfort and spasticity interfering with movement.

Rehabilitation nursing assessment – Comprehensive evaluation performed by nurses to identify physical, psychosocial, and educational needs of SCI patients. Related terms: holistic assessment, care plan. Example: Conducting a systematic skin, bladder, and functional status review each shift. Practical application informs priority setting and interdisciplinary communication. Challenges are time constraints and need for specialized knowledge.

Rehabilitation nursing interventions – Targeted actions performed by nurses to promote recovery, prevent complications, and support self-care in SCI. Related terms: care coordination, patient advocacy. Example: Implementing a bladder training schedule, monitoring for signs of infection, and adjusting catheter care as needed. Practical application improves outcomes and patient autonomy. Challenges include varying injury

levels and resource limitations.

Rehabilitation nursing outcomes – Desired results of nursing care, such as improved skin integrity, independent toileting, and reduced caregiver burden. Related terms: goal attainment, quality indicators. Example: Achieving a 30-day reduction in pressure ulcer incidence on a spinal unit. Practical application guides quality improvement initiatives. Challenges are data collection accuracy and staff engagement.

Rehabilitation nursing process – Structured framework consisting of assessment, diagnosis, planning, implementation, and evaluation (ADPIE) tailored to SCI care. Related terms: clinical reasoning, documentation. Example: Documenting a nursing diagnosis of “Impaired urinary elimination related to neurogenic bladder.” Practical application ensures systematic, patient-centered care. Challenges include maintaining consistency across shifts and integrating technology.

Rehabilitation technology – Devices and software that assist in functional recovery, such as functional electrical stimulation (FES), exoskeletons, and virtual reality platforms. Related terms: assistive robotics, biofeedback. Example: Using an FES system to activate quadriceps during standing practice. Practical application enhances muscle mass and neuroplasticity. Challenges are cost, training, and equipment maintenance.

Respiratory complications – Problems such as atelectasis, pneumonia, and reduced cough effectiveness that arise from impaired diaphragmatic and intercostal muscle function after high-level SCI. Related terms: ventilator support, airway clearance. Example: Incentive spirometry and assisted coughing for a C4 injury patient. Practical application reduces infection risk and maintains oxygenation. Challenges include patient fatigue and limited manual dexterity.

Risk assessment – Systematic process of identifying potential hazards that could lead to complications in SCI patients. Related terms: fall risk, pressure ulcer risk. Example: Using the Braden Scale to evaluate skin integrity risk weekly. Practical application informs preventive measures and resource allocation. Challenges are fluctuating risk levels and documentation burden.

Safety culture – Organizational commitment to minimizing harm through policies, training, and open communication. Related terms: incident reporting, quality improvement. Example: Implementing a “no-blame” policy for reporting catheter infections. Practical application fosters early detection and corrective action. Challenges include staff turnover and varying attitudes toward reporting.

Secondary complications – Health problems that develop as a consequence of the primary spinal cord injury, such as osteoporosis, AD, and chronic pain. Related terms: long-term management, preventive care. Example: Screening for heterotopic ossification at 6-month follow-up. Practical application emphasizes lifelong surveillance. Challenges are patient adherence and healthcare access.

Self-management – Patient’s active participation in daily health tasks, including bladder care, skin checks, and exercise. Related terms: patient empowerment, self-efficacy. Example: A patient records daily bladder volumes and reports any changes. Practical application reduces hospital readmissions and improves autonomy. Challenges are health literacy and physical limitations.

Spasticity management – Comprehensive approach combining pharmacologic, physical, and procedural interventions to control increased muscle tone. Related terms: baclofen, botulinum toxin. Example: Intrathecal baclofen pump implantation for refractory lower-extremity spasticity. Practical application improves comfort and functional mobility. Challenges include pump complications and medication side-effects.

Spinal cord injury (SCI) – Damage to the spinal cord resulting in loss of motor, sensory, and autonomic function below the level of injury. Related terms: traumatic injury, complete vs. incomplete. Example: A T12 complete transection causing paraplegia with preserved upper-body function. Practical application forms the basis for all subsequent assessment, planning, and rehabilitation. Challenges are heterogeneity of presentation and unpredictable recovery trajectories.

Spinal cord independence measure (SCIM) – Validated instrument specifically designed to assess functional independence in SCI across self-care, respiration, and mobility domains. Related terms: outcome tracking, rehab benchmarking. Example: SCIM score improvement from 45 to 70 after 12 weeks of intensive therapy. Practical application provides precise measurement of functional gains. Challenges include training for reliable scoring and cultural adaptation.

Spinal shock – Transient loss of reflexes and motor function immediately following spinal cord injury, lasting days to weeks. Related terms: reflex recovery, flaccid paralysis. Example: Absence of deep tendon reflexes in the lower extremities during the first week post-injury. Practical application guides timing of neuro-physiological assessments. Challenges are distinguishing spinal shock from permanent loss.

Standing frame – Device that supports a person in an upright position, providing weight-bearing benefits without ambulation. Related terms: verticalization, bone health. Example: Daily 30-minute sessions in a standing frame for a T8 incomplete injury. Practical application improves bone mineral density and bowel function. Challenges are patient tolerance and risk of orthostatic hypotension.

Stress ulcer prophylaxis – Preventive medication regimen to reduce gastric mucosal injury in critically ill SCI patients. Related terms: PPIs, H2 blockers. Example: Administering pantoprazole 40 mg daily for a patient on high-dose steroids. Practical application decreases incidence of gastrointestinal bleeding. Challenges include drug interactions and cost.

Suprapubic catheter – Indwelling urinary catheter placed through a lower abdominal incision directly into the bladder, often used for long-term bladder drainage. Related terms: clean intermittent catheterization, catheter care. Example: Insertion of a 16Fr suprapubic catheter for a patient with recurrent urethral strictures. Practical application facilitates easier bladder management and reduces urethral trauma. Challenges are infection risk and need for surgical placement.

Swallowing dysfunction (dysphagia) – Impaired oral intake due to compromised pharyngeal musculature after high cervical injury. Related terms: speech-language pathology, aspiration risk. Example: Videofluoroscopic swallow study reveals aspiration on thin liquids. Practical application includes modified diet textures and swallowing exercises. Challenges are aspiration pneumonia and nutritional deficiencies.

Sympathetic dysreflexia (SD) – Alternate term for autonomic dysreflexia; emphasizes the over-active

sympathetic response. Related terms: AD, reflex arc. Example: Sudden headache and profuse sweating triggered by a tight clothing item. Practical application involves rapid trigger removal and antihypertensive treatment. Challenges are patient unawareness of subtle triggers.

Team communication – Exchange of information among IDT members to coordinate care, share updates, and resolve issues. Related terms: SBAR, interdisciplinary rounds. Example: Using the SBAR (Situation, Background, Assessment, Recommendation) format during handoff to convey a change in bladder regimen. Practical application improves patient safety and continuity. Challenges are differing schedules and electronic health record limitations.

Therapeutic positioning – Use of pillows, wedges, and specialized chairs to maintain alignment, prevent contractures, and promote comfort. Related terms: postural support, pressure redistribution. Example: Placing a lumbar roll to support the lower back while seated. Practical application reduces strain on vulnerable areas and facilitates functional tasks. Challenges are patient tolerance and equipment availability.

Thoracic outlet syndrome – Compression of neurovascular structures at the thoracic inlet, potentially exacerbated by wheelchair propulsion forces. Related terms: vascular compromise, upper-extremity pain. Example: Numbness and coldness in the hand after prolonged wheelchair use. Practical application includes ergonomic adjustments and stretching. Challenges are early detection and overlapping symptoms with spasticity.

Timed-up-and-go (TUG) test – Functional mobility assessment measuring the time required to stand, walk 3 m, turn, and sit. Related terms: gait speed, balance assessment. Example: A TUG time of 12 seconds indicating moderate mobility limitation. Practical application assists in determining need for assistive devices. Challenges are patient fatigue and environmental constraints.

Transitional care – Coordination of services from acute hospital to rehabilitation setting and ultimately to community living. Related terms: discharge planning