**Appendix E**

**TEACHING MODULE CONTENTS:**

**Use of online learning, case studies and practical learning**

**6 months training.**

**20 hours per week.**

1. **SPINAL CORD INJURY**

**Key database (5 hours)**

* Basic Anatomy and Physiology
* Management at scene of accident: protecting the spinal cord.
* Spinal fractures- Spinal stability /precautions
* Principles of Imaging: Plain X-Rays, CT scan, MRI

**Acute Management: (5 hours)**

* Protecting the spinal cord
* Monitoring of Vital Signs
* Acute management of bladder, bowels, skin.
* Determining the extent of injury:
* ASIA (American Spinal Injury Association)/ISNCSCI (International Standards for Neurological Classification of SCI)
* Muscle strength:  standard muscle chart (MRC,1978) Oxford grading scale
* Sensory, especially pin prick sensation (ASIA).
* Completed ASIA charts to classify SCI
* Online training: Questions from online training
* Reflexes
* Classification: level of injury, extent (complete v incomplete), cauda equina syndrome
* Principles of acute treatment: conservative/ surgical management.
* Management of pain

**Acute Rehabilitation:**

* Acute nursing: bladder. bowels, skin
* Therapy care: joints, respiratory
* Respiratory status (including cough) (FVC (Forced Vital Capacity)/PCF/MAC)
* Pre-existing respiratory conditions and influences on SCI
* Equipment- Lung volume recruitment bags, Cough Assist

**Post-acute management:**

* Tone: Modified Ashworth Scale, Penn spasm scale (Bohannon & Smith, 1987)
* Range of Movement:
* Spinal fractures- Spinal stability /precautions
* Pre-morbid musculo-skeletal problems
* Joint ranges
* Associated injuries/ HO
* Splinting minimise muscle imbalance and maintains joint ROM

**Spasticity Management (5 hours)**

* Medication
* Splinting
* Positioning
* Botulinum toxin-19
* FES

**Tissue viability/Skin care (5 hours)**

* Positioning- frogging, prone lying, sleep positions, turning
* Skin checks, clothing
* Seating/cushions
* Pressure relief
* Oedema management
* Education

**Bladder Management (5 hours)**

* Self-intermittent catheterisation
* SPC (Supra Pubic Catheter)
* Bladder assessment and medication
* Education

**Bowel Management (5 hours)**

* Routine - MASCIP bowel guidelines (**M**ultidisciplinary **A**ssociation of **SCI** **P**rofessionals)
* Bristol classification
* Medications and diet
* Trans anal irrigation
* Colostomy

**Sexual Function (2 hours)**

* Content to be discussed in context of culture

**Stroke  (10 hours)**

* Incidence and prevalence
* neurobiology of stroke recovery
* Clinical Pathways in Stroke Rehabilitation: Background, Scope, and Methods
* Goal Setting with ICF (International Classification of Functioning, Disability and Health) and Multidisciplinary Team Approach in Stroke Rehabilitation
* Disorders of Consciousness
* Airway and Ventilation Management
* Recovery of Swallowing
* Arm Rehabilitation
* Mobility After Stroke: Relearning to Walk
* Post-Stroke Spasticity
* Rehabilitation of Communication Disorders
* Treating Neurovisual Deficits and Spatial Neglect
* Cognition, Emotion and Fatigue Post-stroke

**Acquired Brain Injury (10 hours)**

* Incidence and prevention
* Severity of TBI
* Mild (subtle) brain injury and concussion
* Brain aneurysm, Brain haemorrhage
* Brain tumour, encephalitis, hydrocephalus
* Hypoxic and anoxic brain injury
* Meningitis
* Principles of rehabilitation: timescales for recovery

**Posture Management (5 hours)**

* Orthostatic management
* Wheelchair, Seating
* Skin management
* Limb positioning
* Orthotics, corsets, postural bracing
* See patient advice leaflets

**Autonomic Dysreflexia (3 hours)**

* Education
* Medication

**Manual Handling and Carer Training (5 hours)**

* Facilitation of function and activity
* Transfer techniques
* Bladder and Bowel training
* Assist with exercise programme
* Passive/assisted movements

**Pain Management (5 hours)**

* Medication
* Activity promotion
* TENS, massage, acupuncture
* Desensitisation, circumferential pressure
* Joint supports/splints

**Principles of Rehabilitation (5 hours)**

* Ethos
* Goal planning
* Multidisciplinary and interdisciplinary Team
* Enablement
* Participation
* Outcome Measures
* Note writing
* Data collection
* Improved physical and mental wellbeing
* Reduction in morbidity and mortality
* Follow up plan

**Activity based rehab /Mobility (5 hours)**

* Bed mobility
* Transfers
* Functional re education
* Wheelchair skills training
* Standing
* Gait, orthotics
* FES/ Stimulation systems/biofeedback
* Facilitation of active movement and manage muscle imbalance
* Stretches

**Activities of Daily Living (5 hours)**

* Adaptive devices
* Communication options
* ECS?
* Bathing, dressing, eating, food preparation.
* Vocational support

**Strength and Fitness (5 hours)**

* Shoulder protection exercises
* Sport and Leisure activities- online links and clubs (investigate options in Mauritius)
* Activity Guidelines for SCI- education for CV fitness and strength.
* Maintenance programme and gym ideas
* Adaptation of the physical environment
* Concepts of  Major and Minor adaptations
* Use of technology  as a tool in rehabilitation
* Virtual reality

**Patient Education (5 hours)**

* Education and psychological support/manage expectations, Goal setting-related to patients’ environment
* Safe use of aids & equipment
* Information on skin, bladder, bowels
* AD **(A**utonomic **D**ysreflexia)
* Spasticity/Joint ROM **(R**ange **O**f **M**ovement**)**management
* Medication
* Psychological support
* Family involvement
* Discharge plan

**Mental Health and Counselling (5 hours)**

Dealing with constant emotional changes and reactions, Self-actualisation of the patient, Questioning if life is worth living it any longer, Losing independence, Learning to care of themselves (context of all the physical changes), Losing certain responsibilities but being able to gain control of other responsibility, Regaining independence (context: emotionally, physically, financially, etc.), Their responsible roles within their families, Responsibilities and where they fit in and towards society.

Mental Health

* Depression and anxiety (normal reactions to physical changes, injury and disability)
* Type of support which would best fit the client/ patient (Counselling, medication, emotional support, etc.)
* Next steps for the client/ patient as they deal with emotional reactions/ changes (during therapy and post therapy)
* History with drug and alcohol abuse may benefit from treatment
* Cultural aspects (community beliefs, family beliefs and difficulties in engaging with their world)
* Leading an active and meaningful life

Suicide Prevention:

* Being able to re-integrate with their society in a meaningful way
* Understanding that depression or other mental health complications may lead to suicidal thoughts or self harm

Peer support:

* Facilitating family therapy groups
* Coordinating multi-disciplinary groups
* Establishment of Mauritius SCI Support Group

**Life-long Issues (5 hours)**

* Issues during ageing
* VTE prevention
* Heterotopic ossification
* Skin integrity
* Nutrition
* Detecting deterioration- sepsis and environmental concerns