Practice Guide for Physiotherapist

Bangladesh Physiotherapy Association (BPA)
(A member organization of WCPT)
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1. **Introduction:**
The physiotherapy profession has been evolving globally. The last 10 years has seen significant changes take place in physiotherapy practice, and an update of its procedures is of paramount importance. Up until now there has been no set of protocols to outline the standards of physiotherapy practice for physiotherapy practitioners. This code of conducts & guideline will serve to address these issues and guide for professional practice in Bangladesh. The code of conduct & practice guide has been produced by the Bangladesh Physiotherapy Association (BPA) to establish an ethical and professional conduct which meets community expectations and justifies community trust in the judgment and integrity of BPA members. As Physiotherapy is an autonomous health care profession in Bangladesh the Physiotherapy practitioners who are members of the BPA must abide by this BPA code of conduct and practice guide.

2. **Objectives**
   
   **I.** To guide the Physiotherapy Practitioners in clinical practice within the scope of practice.
   
   **II.** To establish a set of standards in physiotherapy practice and control malpractice.
   
   **III.** To develop a referral system to ensure early Physiotherapy treatment or interventions, proper screening and prevent potential complications.
   
   **IV.** To establish the different levels of Physiotherapy practitioners and their scope of practice.
   
   **V.** To avoid misunderstandings and overlapping within the profession and other health care professionals.

Physiotherapists are a first contact autonomous practitioner who diagnose and treat disorders of movement, function, and human performance caused by activity, injury, disease, disability or ageing, particularly those that affect the muscles, bones, joints, nervous system, heart, circulation and lungs. They identify and maximize movement and function through health promotion, preventative healthcare, treatment and rehabilitation using a variety of physical, electro-physical, cognitive and pharmacological agents.

Physiotherapy practitioners can correct abnormal human tissue; anatomical alignments which produce sign/symptoms in human body or restorer biomechanical orientation eg.
Physiotherapist can break down adhesive tissues, correct mechanical disruptions of vertebral disc and so on.

The Physiotherapy practitioner is a recognized autonomous health care professional who works in an open and equal professional partnership with medical practitioners in the care of clients. Any referrals from a medical practitioner are not legally or ethically required before Physiotherapy services are provided. (WCPT declaration 1995)

3. Education

I. Course: Bachelor of Science in Physiotherapy (BSPT)
Course: Affiliated to the University of Dhaka
Duration: Five years including 1 year compulsory internship.
Admission Requirement:
The applicant must have passed S.S.C. and H.S.C or examination of equal status in science (Biology, Physics and Chemistry) without any grace mark or improvement and have to secure grade point 7 (seven). The candidate must have a minimum grade point 3 (three) separately.

Course Curriculum:
The curriculum incorporates consideration of the changing roles and responsibilities of the physiotherapist practitioner and the dynamic nature of the profession and the health care delivery system. The curriculum taught in the program is approved by the University of Dhaka.

<table>
<thead>
<tr>
<th>Professional year</th>
<th>Subjects</th>
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<tr>
<td>Year One</td>
<td>Anatomy-I, Physiology-I, Biochemistry, Kinesiology, Electrotherapy, Therapeutic Exercise-I, Community Medicine, Psychology</td>
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<tr>
<td>Year Two</td>
<td>Anatomy-II, Physiology-II, Pathology &amp; Microbiology-I, Biomechanics, Radiology &amp; Imaging, Orthopedics &amp; Rheumatology, Therapeutic exercise-II, Electrotherapy and Hydrotherapy, Paediatric, Physiotherapy in Orthopedic, Clinical Practice (Orthopedics), Clinical Practice (Spinal cord injury)</td>
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<tr>
<td>Year Three</td>
<td>Pathology &amp; Microbiology-II, Pharmacology-I, Neurology, Cardiopulmonary, General Surgery, Research Methodology, Physiotherapy in Surgical Conditions, Physiotherapy in Cardiopulmonary, Physiotherapy in Neurology and Pediatric,</td>
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Orthopedic Medicine (Musculoskeletal Peripheral), Clinical Practice (Cardiopulmonary), Clinical Practice (Neurology)

Year Four
Pharmacology-II, Geriatric, Psychiatry, Sports Physiotherapy, Orthopedic Medicine (Musculoskeletal Spinal), Professional Ethics and Management, Teaching Methodology, Rehabilitation Medicine (Disability & Development), Prosthetic & Orthotic, Research Project, Clinical Practice (Paediatric), Clinical Practice (Elective), Clinical Practice (Musculo-Skeletal)

II. Diploma in Physiotherapy (Dip. PT)

Course: Affiliated to the State Medical Faculty of Bangladesh

Duration: Three Years (From 2012-2013 it is 4 years including a 1 year internship)

Qualifications & prerequisite for Admission:
(i) SSC Science or an equivalent Science with Physics & Chemistry.
(ii) Candidate has to secure 2nd division or GPA 2.5 in the SSC examination. Candidate passed S.S.C. exam current year or previous three years or as decided by the authority for each year of admission.

Course Curriculum:
To prepare the Physiotherapist knowledge, skill and attitude to bring about behavioral changes for enabling them to perform assigned responsibilities of Medical Technologists in Physiotherapy departments of health institutes like hospitals, rehabilitation centre, health complexes, clinics and physiotherapy centre to achieve the desired goal.

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<th>Year</th>
<th>Subjects</th>
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<tr>
<td>Year One</td>
<td>English, Physics, Chemistry, Basic Human Anatomy, Basic Human Physiology, Basic Community Medicine, Basic Microbiology &amp; Parasitology</td>
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<tr>
<td>Year Two</td>
<td>Kinesiology, Therapeutic Exercise, Electrotherapy and Hydrotherapy, Physiotherapy treatment in medical and surgical conditions, Basic Computer Science</td>
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<tr>
<td>Year Three</td>
<td>Physiotherapy treatment in special medical conditions, PT treatment in special</td>
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surgical conditions, Clinical practice and professional ethics.

III. Course: Physiotherapy Assistant (PTA)

This is a certificate course. The course is not affiliated to any government authority. It is own course of institute and the certificate provides from the individual Institute.

Duration: 18th months (3 semesters)

Qualifications & prerequisite for Admission:
(i) The applicant must have passed the Secondary School Certificate or equivalent examination in science group with at least 2nd division standard / equivalent.
(ii) Students must meet the essential criteria as determined by the interview specification.
(iii) Candidates will be medically examined and will have to be found fit by an appointed medical board.

Course Curriculum:

The purpose of this course is to prepare skilled physiotherapy assistants who will assist the physiotherapist during the Treatment/ Interventions.

<table>
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<tr>
<th>Semester</th>
<th>Subjects</th>
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<tbody>
<tr>
<td>Semester-I</td>
<td>Basic Anatomy &amp; Physiology, Basic Kinesiology, Primary Health Education, Psychology, English, Physiotherapy skills-I</td>
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<tr>
<td>Semester-II</td>
<td>Neurological Physiotherapy, Musculoskeletal Physiotherapy, Paediatric Physiotherapy, Cardiopulmonary Physiotherapy, Physiotherapy in CBR, Physiotherapy Skills II</td>
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<tr>
<td>Semester-III</td>
<td>Clinical Placement in (Spinal Cord Injury Neurology, Musculoskeletal, Cardiopulmonary, Paediatrics, Community Based Rehabilitation)</td>
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4. Code of Conduct

The Physiotherapy Practitioners will abide by the following code of conduct during any professional practice. The Physiotherapy Practitioner shall:

1. Respect the rights and dignity of all individuals
2. Comply with the code of conduct & practice guide, regulation, policies and procedures of BPA.
3. Work within the scope of practice based on current knowledge and competency standards, and shall practice in a careful, honest and accountable manner through sound judgment and discernment.
4. Respect & maintain the confidentiality or privacy and safety & security of the patients/clients.
5. Obtain informed consent & maintain a professional relationship with patients and caregivers.
6. Communicate and cooperate with colleagues and other health care professionals for the benefit of the patients.
7. Disseminate accurate and updated information about physiotherapy to the patient and community.
8. Adhere at all times to the personal and professional standard, development that reflects professional practice.
9. Maintain the Professional Autonomy at all times to provide services to the patients/clients.
10. Protect the public and the profession from unethical, incompetent and illegal acts.

4.1. Physiotherapy practitioners shall respect the rights and dignity of all individuals

I. Patients/Clients shall not be denied from physiotherapy services on the basis of age, gender, race, religion, sexual orientation, creed (belief) or physical, economical, social and political status.

II. Physiotherapy practitioners shall respect the right of individual feelings and cultural customs.

III. Patients/ Clients have the right to participate in decisions about their physiotherapy care.
IV Patients/ Clients have the right to obtain a second opinion and cease physiotherapy.

V Patients/ Clients have the right to discuss concerns and to have complaints managed sensitively and appropriately.

VI Patients/ Clients have the right to expect professional relationships with their treating Physiotherapists & that will be based on confidence and trust.

VII Physiotherapy practitioners shall not partake in intimate or unethical relationships with patients/clients.

4.2. Physiotherapy practitioners shall comply with the code of conduct & practice guide, regulation, policies and procedures of BPA.

I Physiotherapy practitioners shall have a full understanding of all of the laws and regulations, policies and procedures of the BPA & maintain the code of conduct & guideline relevant to their practice.

4.3. Physiotherapy practitioners shall work within the scope of practice based on current knowledge and competency standards, and shall practice in a careful, honest and accountable manner through sound judgment and discernment.

I Physiotherapy practitioners shall practice within the scope of practice, based on current knowledge and competency standard according to the course curriculum.

II Physiotherapy practitioners shall maintain standard referral procedures.

III Physiotherapy practitioners are responsible and accountable for the provision of physiotherapy services and for the relevant knowledge and competence that these services require.

IV Physiotherapy practitioners shall ensure that their practice is conducted in a safe manner and contraindications are observed, safety tests are undertaken and recorded plus equipment meets health and safety requirements.

V Physiotherapy practitioners when teaching & demonstrating physiotherapy skills to others need to ensure that they do not undermine the professional standard of physiotherapy.

VI Physiotherapy practitioners shall keep a confidential record for every patient/ client to allow for the effective evaluation and follow up of the patient/client progress and the physiotherapist’s treatment/ interventions.
VII Physiotherapy practitioners have the right to refuse to provide a service where there is reasonable ground for doing so, especially when it is not considered in the best interests of the patient/client.

VIII Physiotherapy practitioners shall provide treatment with fair remuneration.

IX Physiotherapy practitioners are only designated to prescribe & provide physiotherapy services.

X Diploma physiotherapist shall be liable to provide physiotherapy services according to the rules of organization or institutions.

XI Physiotherapy Assistant (PTA) shall assist physiotherapist during treatment.

4.4. Physiotherapy practitioners shall respect & maintain the confidentiality or privacy and safety & security of the patients/clients

I Physiotherapy practitioners shall maintain the confidentiality /privacy of the patients/clients.

II Physiotherapy practitioners shall ensure that all staff under their supervision also respects patient’s/client’s confidentiality.

III Physiotherapy practitioners shall keep a confidential record for every patient, which is complete, legible, and understandable, and held securely for at least the period required by law.

IV Physiotherapy practitioners shall not disclose any information about a patient to a third party without the patient’s permission, unless law requires such disclosure.

V Physiotherapy practitioners shall ensure every equipment is safe, fit for its purpose and ensures patient, care giver and physiotherapist.

VI Physiotherapy practitioner shall write a report in case of any untoward incidence occur within the working areas. (Damage of instrument, damage of patient/harm to the patient, cause of burn while using electrotherapy and other associates)

VII Physiotherapy practitioners shall respect client privacy during the exchange of client information within multidisciplinary teams.

4.5. Physiotherapy practitioners shall obtained informed consent & maintain a professional relationship with patients and caregivers.

I Physiotherapy practitioners must obtain informed verbal consent from the patients or
caregivers before starting assessment or treatment.

II Physiotherapists will not be involved in any unethical dealings regarding financial psychological or emotional aspect.

4.6. Physiotherapy practitioners shall communicate and cooperate with colleagues and other health care professionals for the benefit of the patients.

I Physiotherapy practitioners will communicate appropriately with professional colleagues and other relevant professionals or agencies strictly if it will benefit the patient/client.

III Physiotherapy practitioners shall have the right to expect cooperation from their colleagues while treating a patient.

4.7. Physiotherapy practitioners shall disseminate accurate and updated information about physiotherapy to the patient and community.

I Patients/Clients have the right to obtain appropriate, objective, truthful and understandable information about their condition, and about proposed physiotherapy procedures and programs, including expected benefits, perceived risks, alternatives, costs and fees to enable an informed consent to be given or withheld.

II Physiotherapy practitioners shall not make or advertise false or misleading information.

III Physiotherapy practitioners shall use title which correctly describes their professional status or expertise according to their country perspective.

4.8. Physiotherapy practitioners shall adhere at all times to the personal and professional standard, development that reflects professional practice.

I Physiotherapy practitioners shall be aware of their currently accepted standard of practice.

II Physiotherapy practitioners will participate in Continuing Professional Development (CPD) throughout their professional career to enhance their advanced skills & knowledge.

III Physiotherapy practitioners shall be supported to higher education both in academic and clinical setting.

IV Physiotherapy practitioners who engage in research shall abide by the accepted ethical rules and maintain a universal standard of conducting research
4.9. Physiotherapy practitioners shall maintain the Professional Autonomy at all times to provide services to the patients/clients

I Physiotherapy practitioners shall perform evaluation, examination, prognosis, diagnosis, plan of care, and outcomes for patients with various movement disorders related to all systems of the body independently.

II Physiotherapy practitioners shall provide treatment/interventions to patient within their scope of practice without the need of referral, supervision or delegation by other health care professionals.

III Physiotherapy practitioners are responsible professionals who will practice within their scope of practice and professionals competence and refer to other health care practitioners & receive referral as appropriate.

IV Physiotherapists will work in an open and equal professional partnership with medical & other health care professionals in the care of clients

V Physiotherapy practitioners shall provide treatment/Interventions to a particular patient based on sound clinical reasoning and diagnosis

VI Physiotherapy practitioners shall advise investigations related with Musculo-skeletal and Neuromuscular conditions to formulate a specific diagnosis

VII Physiotherapy practitioners will take independent decision regarding the needs of the patients.

4.10. Physiotherapy practitioners shall protect the public and the profession from unethical, incompetent and illegal acts.

I Physiotherapy practitioners shall not overlook or associate with unethical practices.

II Physiotherapy practitioners shall not use false degree or title that misleads people.

5. Title

Use of Prefix & Suffix
Use of prefix “Dr.” before the name and suffix “PT” after the name will not be unethical or malpractice according to writ petition number 10998 of 2011 on 4th January, 2012 (Hon’ble Supreme Court of Bangladesh, High Court Division) for those who hold Bachelor Degree in Physiotherapy from the University of Dhaka or UGC approved universities. It may be decided when regulatory body will be established.
6. Categories of Physiotherapy Practitioner

Intern Physiotherapy Practitioner:
Physiotherapy students, who pass the final professional examination of the 4-years bachelor degree, are required to do the one-year mandatory internship and they will be regarded as Intern Physiotherapy Practitioners. Before starting the internship, they must take registration from Government registered professional body which is member of WCPT.

Physiotherapy Practitioner:

A. Clinical Physiotherapist/ Lecturer: Those who have obtained the 4-years bachelor degree, and completed a one-year internship, as well as being a regular member of professional body, and/or other government regulatory body.

B. Senior Physiotherapist/ Senior Lecturer: Those who have working experience of 3 years or above as Clinical physiotherapist or Lecturer.

Specialist Physiotherapy Practitioner: Physiotherapists who have completed at least a relevant post graduation diploma or obtained the designation Junior Consultant or above or Assistant Professor or above, will be titled as a Specialist Physiotherapy Practitioner.

7. Referral Pathways

Physiotherapy Practitioners can provide treatment as first contact practitioners and refer to other appropriate medical& health care professionals whose services may benefit the patient/client.
Referral Pathways Objectives:

Benefit of Patient’s direct access to physiotherapists:
- Proactive approach to patient care
- Disease management and appropriate health services will be delivered earlier.
- Increased autonomy in making professional decisions
- Less time off work
- More likely to complete a course of treatment
- Increased interest in self management
- Increased satisfaction with their care

Saves money through:
- Reducing costs of seeing other health professionals eg general practitioners
- Less prescribing
- Less investigations
- Less secondary care
- Reducing costs to society e.g. through time off work
- Less administration cost
8. Responsibilities & Treatment / Interventions guide for PT Practitioners

Practitioner Roles: The term practitioner encompasses all roles that a physiotherapist may assume such as patient treatment and care, management, research, policy maker, educator, and consultant etc.

As physiotherapists are the first contact practitioners, they may provide direct treatment/interventions to the patients/clients without referral from other healthcare professionals.

Physiotherapy practitioner professionally is allowed to examination/assessment, evaluation, diagnosis, prognosis, and patient admission, the plan of treatment or intervention and re-examination, and discharge of the patient.

Assessment/Examination including the Subjective: - History taking, present and past conditions, drug history, family and social history, special questions, investigations.

Objective: - Physical examination, range of motion, muscle power, special tests, gross motor & fine motor function, sensation, coordination, balance & other relevant special tests.

The history may include obtaining the following data:
- General demographics (age, sex, education)
- Social history (cultural beliefs and behaviors, family and caregiver resources, social interactions/activities)
- Employment - Work/Job/School (current and prior work, community, and leisure actions, tasks, or activities)
- Growth and development (developmental history, hand dominance)
- Living environment (home environment, community characteristics, devices and equipment, projected discharge destination)
- General health status – self-report, family report, caregiver report (general health perception, physical function, psychological function, role function, social function)
- Family history (familial health risks)
- Medical/surgical history (cardiovascular, endocrine/metabolic, gastrointestinal, gynecological, musculoskeletal, neuromuscular, obstetrical, psychological, pulmonary, and other health related conditions)
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- Current conditions/chief complaints (concerns leading to seeking physiotherapy services, current therapeutic interventions, mechanisms of injury or disease, onset and pattern of symptoms, expectations and goals for the therapeutic interventions, emotional response to the current clinical situation, previous occurrence of chief complaints, prior therapeutic interventions)

- Functional status and activity level (current and prior functional status in self-care and home management, including activities of daily living and instrumental activities of daily living)

- Medications (medications for the current condition, medications previously taken for the current condition, medications for other conditions)

- Other clinical tests (laboratory and diagnostic tests, review available records, review other clinical findings)

**Systems review is included brief assessment of the following systems:**

- Cardiovascular/pulmonary systems
  - Blood pressure
  - Heart rate
  - Respiratory rate
  - Assessing for oedema etc

- Musculoskeletal system
  - Gross range of motion
  - Gross strength
  - Gross symmetry
  - Height
  - Weight etc

- Neuromuscular system
  - Gross coordinated movements, e.g. balance, locomotion, transfers, and transitions etc.

- Integument system
  - The presence of any scar formation
  - Skin colour
  - Skin integrity etc
Tests and measures are included:
- Aerobic capacity/endurance, including assessment of:
  - Aerobic capacity during functional activities and during standardized tests
  - Cardiovascular signs and symptoms during exercise or activity
  - Pulmonary signs and symptoms during exercise or activity
- Assistive technologies and adaptive devices may include assessment of:
  - Devices and equipment
  - Components
  - Remediation of impairments
  - Functional limitation
  - Disabilities
  - Safety
- Circulation (arterial, venous, lymphatic) may include assessment of:
  - Signs
  - Symptoms
  - Physiological responses to positions
- Cranial and peripheral nerve integrity may include assessment of:
  - Motor and sensory distribution of nerves
  - Response to neural provocation
  - Response to stimuli
  - Electrophysiological testing
- Environmental, home, and work (job/school/play) barriers may include assessment of:
  - Current and potential barriers
  - Physical space and environment
- Ergonomics and body mechanics may include assessment of:
  - Dexterity and coordination during work
  - Functional capacity during work
  - Safety during work
  - Specifics of work conditions
  - Work tools, devices, equipment
- Gait, locomotion, and balance may include assessment of:
- Static and dynamic balance
- Balance during functional activities
- Gait and locomotion during functional activities with or without devices or equipment
- Safety during gait, locomotion, and balance
- Integumentary integrity may include assessment of:
  - Activities, position, postures, devices, and equipment that produce or relieve trauma to skin
  - Burns
  - Signs of infection
  - Wound and scar characteristics
- Joint integrity and mobility may include assessment of:
  - Joint integrity and mobility
  - Joint play movements
- Motor function (motor control and motor learning) may include assessment of:
  - Dexterity, coordination, and agility
  - Hand function
  - Control of movement patterns
  - Voluntary postures
- Muscle performance may include assessment of:
  - Muscle strength, power, and endurance
  - Muscle tension
- Neuromotor development and sensory integration may include assessment of:
  - Acquisition of motor skills
  - Oral motor function
  - Sensorimotor integration including postural, equilibrium, and righting reactions
- Orthotics, prosthetics and supportive devices may include assessment of:
  - Components, alignment, and fit
  - Use during functional activities and sport-specific activities
  - Safety during use
- Pain may include assessment of:
  - Type, location, and severity (irritability, intermittent/constant, quality, pattern, duration, time, cause)
  - Soreness
  - Nocioception
- Posture may include assessment of:
  - Static and dynamic postural alignment and position
- Prosthetic requirements may include assessment of:
  - Components, alignment, fit, and ability to care for prosthesis
  - Use during functional activities and sport-specific activities
  - Remediation of impairments, functional limitations and disabilities
  - Residual limb or adjacent segment
  - Safety during use
- Range of motion may include assessment of:
  - Functional range of motion
  - Active and passive movements of joint
  - Muscle length
  - Soft tissue extensibility and flexibility
- Reflex integrity may include assessment of:
  - Deep and superficial reflexes
  - Postural reflexes and reactions
  - Primitive reflexes and reactions
  - Resistance to passive stretch
- Self-care and home management may include assessment of:
  - Activities of daily livings [ADL’s] ie bed mobility, transferring and instrumental
  - Independent Activities of daily livings [IADL’s] for self-care and home management
  - Ability to gain access to home environment
  - Safety during self-care and home management
- Sensory integrity may include assessment of:
  - Combined/cortical sensations
Deep sensations

Ventilation and respiration/gas exchange may include assessment of:
- Pulmonary signs of respiration/gas exchange
- Pulmonary signs of ventilatory function
- Pulmonary symptoms

Work (job/school/play), community, and leisure integration or reintegration may include assessment of:
- Ability to assume or resume work, community, and leisure activities
- Ability to gain access to work
- Community, and leisure environments
- Safety in work, community, and leisure activities and environments

Diagnostic Test:
For specific diagnostic purpose Physiotherapists shall be done the following physical Examination & test and may advice the following Radiological & laboratory diagnostic tests.

Physical Examination & Test:
- Palpation for any tenderness and swelling and surface marking for any bony abnormalities.
- Resisted tests
- Checking the active range of motion
- Capsular pattern
- Manual Muscle Testing
- Measuring joint ROM
- Pain measurement
- Special test for specific joints
- Auscultation
- Chest movement
- Cough efficiency
- Tone measurement
- Coordination
- Proprioception
• Balance
• Pelvic floor muscle strength measurement
• Gait analysis
• Differential diagnosis etc

**Radiological Test:**
• X-ray
• Magnetic Resonance Imaging (MRI)
• Ultra SonoGraphy (USG)
• Computerized Tomography (CT Scan)

**Other Test:**
• ECG, EMG, NCV

**Laboratory Test:**
• CBC, ESR, C-reactive Protein, RA test, Blood sugar, ASO titre, Widal test, MT test, AFB staining, Serum Calcium, Serum Electrolytes, Serum Bilirubin. SGPT, SGOT, Uric Acid, Cholesterol, HLA B-27, Urine for RME, Stool RME etc.

**Treatment & Interventions:**
The following treatment & interventions will be prescribed & delivered by physiotherapists.

**Coordination, communication and documentation:**
  o Address required functions
  o Admission and discharge planning
  o Case management
  o Communication across settings
  o Cost-effective resource utilizations
  o Data collection, analysis and reporting
  o Documentation
  o Interdisciplinary teamwork
  o Referrals to other professionals

**Patient/client-related instruction:**
  o Instruction, education and training of patients/clients and caregivers

**Therapeutic exercise:**
  o Aerobic capacity/endurance conditioning or reconditioning
- Gait and locomotor training
- Increased workload over time
- Movement efficiency and energy conservation training
- Walking and wheelchair propulsion programmes

  o Balance, coordination, and agility training
    - Developmental activities training
    - Motor function (motor control and motor learning) training, or retraining addressing required function
    - Neuromuscular education or re-education
    - Perceptual training
    - Posture awareness training
    - Sensory training or retraining
    - Task-specific performance training
    - Vestibular training

  o Body mechanics and postural stabilization
    - Body mechanics training
    - Postural control training
    - Postural stabilization activities
    - Posture awareness training

  o Flexibility exercises
    - Muscle lengthening
    - Range of motion
    - Stretching

  o Gait and locomotion training
    - Developmental activities training
    - Gait training
    - Implement and device training
    - Wheelchair training

  o Neuromotor development training
    - Developmental activities training
    - Motor training
- Neuromuscular education or re-education

  o Relaxation
    - Breathing strategies
    - Movement strategies
    - Relaxation techniques
    - Standardized, programmatic, complementary exercise approaches

  o Strength, power, and endurance training for head, neck, limb, pelvic-floor, trunk, and ventilatory muscles
    - Active assistive, active, and resistive exercises (including concentric, dynamic/isotonic, eccentric, isokinetic, isometric, and plyometric)
    - Aquatic programs
    - Standardized, programmatic, complementary exercise approaches
    - Task-specific performance training
    - Kegal exercise

**Functional training in self-care and home management:**

  o Activities of daily livings [ADL’s] training
    - Bed mobility and transfer training
    - Developmental activities
    - Dressing
    - Eating
    - Grooming
    - Squatting
  
  o Barrier accommodations or modifications

  o Device and equipment use and training

    - Assistive technologies and adaptive devices or equipment training during activities of daily livings [ADL’s] and instrumental activities of daily living [IADL’s]
    - Orthotic, protective, or supportive device or equipment training during self care and home management
    - Prosthetic device or equipment training during ADL and IADL
  
  o Instrumental activities of daily living [IADL] training
- Caring for dependents
- Home maintenance
- Shopping
- Structured play for infants and children
- Injury prevention or reduction
  - Injury prevention education during self-care and home management
  - Injury prevention or reduction with use of devices and equipment
  - Safety awareness training during self-care and home management

**Functional training in work (job/school), community, and leisure integration or reintegration:**
- Barrier accommodations or modifications
- Device and equipment use and training
  - Assistive technologies and adaptive device or equipment training during IADL
  - Orthotic, protective, or supportive device or equipment training during IADL
  - Prosthetic device or equipment training during IADL
- Functional training programs
  - Simulated environments and tasks
  - Task adaptation
  - Task training
  - Travel training
  - Work conditioning
- Injury prevention or reduction
  - Injury prevention education during work (job/school/play), community, and leisure integration or reintegration
  - Injury prevention education with use of devices and equipment
  - Safety awareness training during work (job/school/play), community, and leisure integration or reintegration
- Leisure and play activities and training

**Manual Therapy:**
- Manual lymphatic drainage
- Manual traction
Soft tissue therapy
- Connective tissue massage
- Therapeutic massage

Mobilization/manipulation
- Soft tissue (thrust and non-thrust)
- Spinal and peripheral joints (thrust and non-thrust)

Passive range of motion

**Prescription, application, and, as appropriate, fabrication of devices and equipment:**

Adaptive devices
- Environmental controls
- Hospital beds
- Raised toilet seats
- Seating systems

Assistive devices
- Canes
- Crutches
- Long-handled reachers
- Percusses and vibrators
- Power devices
- Static and dynamic splints
- Walkers
- Wheelchairs

Orthotic devices
- Braces
- Casts
- Shoe inserts
- Splints
- Prosthetic devices (lower-extremity and upper-extremity)

Protective devices
- Braces
- Cushions
- Helmets
- Protective taping
  - Supportive devices
    - Compression garment
    - Corsets
    - Elastic wraps
    - Mechanical ventilators
    - Neck collars
    - Serial casts
    - Plaster of Paris
    - Slings
    - Supplementary oxygen
    - Supportive taping

**Cardio-respiratory treatment Techniques:**
  - Breathing strategies
    - Active cycle of breathing or forced expiratory techniques
    - Assisted cough/huff techniques
    - Postural drainage
    - Pursed lip breathing
    - Techniques to maximize ventilation (e.g., maximum inspiratory hold, stair case breathing, manual hyperinflation)
  - Manual/mechanical techniques
    - Chest percussion, vibration, and shaking
    - Chest wall manipulation
    - Suctioning
    - Ventilatory aids
  - Positioning
    - Positioning to alter work of breathing
    - Positioning to maximize ventilation and perfusion
    - Pulmonary postural drainage
Oxygen therapy
- Supplemental
- Topical

Electrotherapeutic Modalities:
- Biofeedback
- Electrotherapeutic delivery of medications
- Iontophorosis

Electrical Stimulation:
- Tropic Stimulator
- Electrical muscle stimulation (EMS)
- Electrical stimulation for tissue repair (ESTR)
- Functional electrical stimulation (FES)
- High voltage pulsed current (HVPC)
- Neuromuscular electrical stimulation (NMES)
- Transcutaneous electrical nerve stimulation (TENS)

Physical Agents and Mechanical Modalities:
- Physical agents
  - Pulsed electromagnetic fields
  - Cryotherapy
  - Cold packs
  - Ice massage, ice brushing
  - Hydrotherapy
  - Contrast bath
  - Pools
  - Infrared
  - Laser
  - Ultraviolet
- Heat/sound agents
  - Phonophoresis
  - Ultrasound
  - Thermotherapy
- Hot packs
- Paraffin baths
- Other heat modalities
  o Compression therapies
    - Compression bandaging
    - Compression garments
    - Taping
  o Standing frame
    - Tilt table
    - Mechanical motion devices
    - Continuous passive motion (CPM)
  o Traction devices
    - Intermittent
    - Positional
    - Sustained

Pharmacotherapy:
Physiotherapists may prescribe the relevant medicine within the scope of practice spanning Musculoskeletal, Pain management, Neurological, Respiratory, Emergency care, Women’s Health, Paediatric and Elderly care.

- **Gastro-intestinal system:**
  - Mucosal Protectants
  - Anti-motility
  - Laxatives
  - Oral rehydration therapy
- **Cardiovascular system:**
  - CPR adrenaline
  - Anticoagulants
- **Respiratory system:**
  - Short and long term b2 agonist
  - Antimuscarinics
  - Anti histamine
- Theophylline
- Corticosteroids
- Cromoglycants
- Respiratory stimulants
- Mucolytics
- Expectorants
- Decongestants

**Central Nervous System:**
- Neuropathic pain medicines
- Non-opioid analgesics
- Opioid analgesics
- Anti-migraine drugs
- Anti-epileptic
- Anti-emetics

**Musculo-skeletal and Joint Disease:**
- NSAIDs
- Local corticosteroids injection
- Systemic corticosteroids
- Muscle relaxant

**Anti-microbials:**
- Antibiotics (inhaled, nebulised, oral and topical forms)

**Others:**
- Anti-obesity drugs
- Smoking cessation
- Multivitamin
- Multiminerals

Glucosamine + Chondroitin
9. Practice Boundary for Physiotherapy Practitioners

A. Intern Physiotherapy Practitioner:
All physiotherapy practice will be continued under direct supervision of a Physiotherapist/senior physiotherapists or Physiotherapy Lecturer

B. Physiotherapy Practitioner:
B1. Clinical Physiotherapist/Lecturer:

- Assessment and intervention including prescription of exercise therapy use of electro physical agents, soft tissue and spinal manipulation, mobilization, Traction, Assistive devices, prosthetic and Orthotic devices and other treatment methods.
- Implement patient admissions and discharges and if required, provide a medical certificate.
- Prescribe radiological tests (X-rays), laboratory test and medications under the supervision of a senior teacher or Senior Physiotherapist.

B2. Senior Physiotherapist/ Senior Lecturer (Teacher):
In addition to their roles as a Clinical Physiotherapist/ Lecturer:

- Laboratory test: CBC, ESR, C - reactive protein, MT test, RA test, Uric Acid, Urine RME, Stool RME
- Prescribe radiological tests (X-rays)
- Prescribe medications: Analgesics, Muscle Relaxants, Antacids & Anti- dyspeptic and Vitamins.

C. Specialist Physiotherapy Practitioner
- In addition to their roles as a Senior Physiotherapist/ Senior Lecturer:
- Prescribe further Pathological tests (Blood sugar, ASO titre, Widal test, AFB staining, Serum Calcium, Serum Electrolytes, Serum Bilirubin. SGPT, SGOT , Cholesterol, HLA B- 27)
- Prescribe further Radiological tests (CT’s, Ultrasound, MRI’s)

A Specialist Physiotherapy Practitioner will supervise and practice in adherence to the Responsibilities & treatment / Interventions guide for Physiotherapists.
10. Duties & Responsibilities of Diploma physiotherapist (Dip. PT)
Job description may be according to the course curriculum

11. Duties & Responsibilities of Physiotherapy Assistant (PTA)

The Physiotherapy practitioners assign a PTA’s duties. They will assist the physiotherapist during providing any treatment/interventions to the patients. The physiotherapist is liable for the physiotherapy treatment/ interventions of patient.

Major Duties & Responsibilities:

- Providing care for assigned patients
- Providing patient/patient career education and support to address physical, emotional and self-care needs as assigned
- Providing timely and astute information to relevant team members about the patient’s performance
- Implementing the components of the treatment plan as directed by the physiotherapist
- Assisting with walking, transfers and safe mobility, etc.
- Assisting the patient with his/her individual cognitive, perceptual and physical programs
- Assisting in or conducting group activities / exercise programs
- Monitoring and reporting changes in health status to the supervisor
- Ordering prescribed assistive or adaptive equipment according to physiotherapist recommendation.
- Maintaining equipment.
- Keep the treatment place and equipment neat and clean.
- To perform any assign job by the physiotherapist for the benefit of patient or department.
12. Disciplinary process

**Malpractice:** Other than any practice, mentioned in the practice guide of PT would be defined as malpractice.

A disciplinary committee will be formed consisting of 5 members voted by the BPA. The following process will be considered as part of the disciplinary process:

a) Develop system of obtaining complaint from multiple sources.

b) Submit complaint to the disciplinary committee.

c) Evaluate complaint by the disciplinary committee and give formal feedback.
   
   (i) Resolve
   
   (ii) Formally forwarded to the investigation committee and request to conduct investigation.

d) The report of investigation shall be submitted to the disciplinary committee within certain period of time (2 to 3 weeks).

b) The Disciplinary committee will make a decision based on particular investigation report according to the policy of BPA.
13. References:

1. World Confederation for Physical Therapy (WCPT)
2. Bangladesh Physiotherapy Association (BPA)
   NRIC and ESP committee representative for Northern Territory Australian Physical Therapy Association (APA).
4. The Chartered Society of Physiotherapy (CSP), UK
5. Cindy J Benson, Richard C Schreck, Frank B Underwood & David G Greathouse,
7. Huntindonshire- Primary Care Trust, NHS, Physio direct.
8. Therapists’ referral for X-ray examination, West Essex- Primary health care, NHS, Document reference no. W8/08PTL0003/MS
9. Linda Woodhouse 2006, Registered Physiotherapist Extended Class – Musculoskeletal, the Advanced Practice Physiotherapy Task Force, the Ontario Physiotherapy Association, Canada
11. To seek views on possibilities for introducing independent prescribing responsibilities for physiotherapists, Department of Health UK.
12. Bachelor of Science in Physiotherapy (BSPT) Course curriculum, Dhaka University.
13. Medical Technology (Physiotherapy) Course Curriculum, State Medical Faculty of Bangladesh.
14. Physiotherapy Assistant Course Curriculum, Bangladesh Health Professions Institute (BHPI), CRP.