FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF HEALTH

PHYSICAL REHABILITATION SERVICE GUIDELINE

SEPTEMBER 2018

PHYSICAL REHABILITATION SERVICE GUIDELINE

FOREWORD

Rehabilitation of people with disabilities is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Hospitals should Know and Understand that the impact of profession and conscious intervention in rehabilitation program has significant contribution towards socioeconomic empowerment, promotion of public health, wellbeing, and full inclusion of persons with disabilities. MOH recommend that Time and Efforts needed to rehabilitate children, youth and adults with disabilities and to provide basic counseling to mothers of children with disabilities requires Passion and Commitment combined with acquired knowledge, skills and experience of the discipline.

Thus, FMOH motivates those Rehabilitation professionals are committed to engage in research, multidisciplinary working relationship development, Monitoring Evaluation Accountability and Learning (MEAL) activities and networking beyond and above their routines. These expanded engagement of Therapists helps in expansion and quality of physical rehabilitation, and public consciousness development towards the field of practice.

It is with great pleasure that I recommend these document to be a primary guideline for the scale up of physical rehabilitation service in Ethiopia.

Daniel G/Michael Burssa (Dr)
Medical Service General Directorate
Director General

ACKNOWLEDGEMENTS

The FMOH acknowledges the commitment and technical support of the physical rehabilitation guideline active TWG members along with their respective organizations and key contributors who made the development of this hospital based rehabilitation guideline a reality. This document is made possible by the concerted effort of stakeholders working under the Technical Working Group.

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CONTENTS

LIST OF ACRONYMS

DPT	Doctor of Physiotherapy
EHTSG	Ethiopian Hospital Transformation Standard Guideline
FDRE	Federal Democratic Republic of Ethiopia
FENAPD	Federation of Ethiopian National Associations of Persons with Disability
FMHACA	Food, Medicine and Health Service Administration and Control Authority
HI	Handicap International
HSTG	Hospital Sector Transformation Guideline
HSTP	Health Sector Transformation Plan
HMIS	Health Management Information Systems
ICRC	International Committee of Red Cross
ICF	International Classification of Functioning, Disability and Health
ILO	International Labour Organization
MoH	Ministry of Health
MoLSA	Ministry of Labour and Social Affairs
MSD	Medical Service Directorate
NGO	Non-Governmental Organization
OT	Occupational Therapy
PT	Physiotherapy
PWD	Person with Disability
P &O	Prosthetics and Orthotics
RHB	Regional Health Bureau
SLP	Speech Language Pathology
SNNP	South Nations Nationalities and Peoples
SPHMMC	St. Paul's Hospital Millennium Medical College
ToR	Term of Reference
TWG	Technical working group
WHO	World Health Organization
WCPT	World Confederation for Physical Therapy
CSD	Clinical Service Diroctorate
MSGD	Medical Service General Diroctorate

SECTION 1: INTRODUCTION TO REHABILITATION

Rehabilitation is a broad process aimed at enabling people to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels.

The term 'Rehabilitation' has many connotations, depending on the circumstances/fields in which it is being used, stretching from environmental to socio-economic concerns. For the purpose of this document the term 'Rehabilitation' refers to the participation and collaboration of professionals with patients/clients, which takes place within a hospital/medical environment to address physical, sensory or cognitive impairments in order to facilitate improved functional outcomes for an individual. Interventions within Rehabilitation can include a wide range of interventions, as needed, including prevention of disability through timely physiotherapy intervention, compensation and supply of various appliances.

Rehabilitation professionals cover a range of professions, including physical therapy/ physiotherapy, occupational therapy, orthotics and prosthetics, rehabilitation nursing, physical medicine and rehabilitation, psychology, speech and language therapy, nutrition and social work. These professionals ideally work collaboratively in a multidisciplinary team, each contributing their specialty to achieve comprehensive care .

Rehabilitation professionals understand and recognize that it is not the restriction But the limitations that significantly disables girls and boys women and men with impairments.

Rehabilitation professionals know and understand that time and efforts needed to rehabilitate children, youth and adults with disabilities and to provide basic counseling to mothers of children with disabilities requires passion and commitment combined with acquired knowledge, skills and experience of the discipline.

Rehabilitation professionals know and understand that the impact of their professional and conscious intervention in the rehabilitation program has significant contribution towards socioeconomic empowerment, promotion of public health, wellbeing, and full inclusion of persons with disabilities.

Thus, rehabilitation professionals are committed to engage in research, multidisciplinary working relationship development, Monitoring Evaluation Accountability and Learning (MEAL) activities and networking beyond and above their routines. These expanded engagement of therapists helps in expansion and quality of physical rehabilitation, and public consciousness development towards the field of practice.

[1] Emergency medical teams: minimum technical standards and recommendations for rehabilitation. Geneva: World Health Organization; 2016. Licence: CC BY-NC-SA 3.0 IGO

According to the World Disability Report, issued in June 2011 by the World Health Organization (WHO) and the World Bank, nearly 15% of the world's population has disabilities. 80% of those with disabilities live in developing countries and most of them do not have access to rehabilitation services due to lack of resources and variety of other factors .
In Ethiopia, provision of assistance to Persons with Disability (PwDs) was started about half a century ago. The assistance began by philanthropic individuals organized under a "Mahiber." Then after some time, few NGOs started supporting the "Mahiber" and established new centers. At that time the government was not involved in the issue of PWDs. Very recently, it has been understood that the issue of PwDs to be a question of human rights and a development agenda . In this regard, the government has been establishing new rehabilitation centers at federal and regional levels. Currently, there are few governmental and non-governmental rehabilitation centers that are trying, to the best of their capacity, to provide services to persons with disabilities.

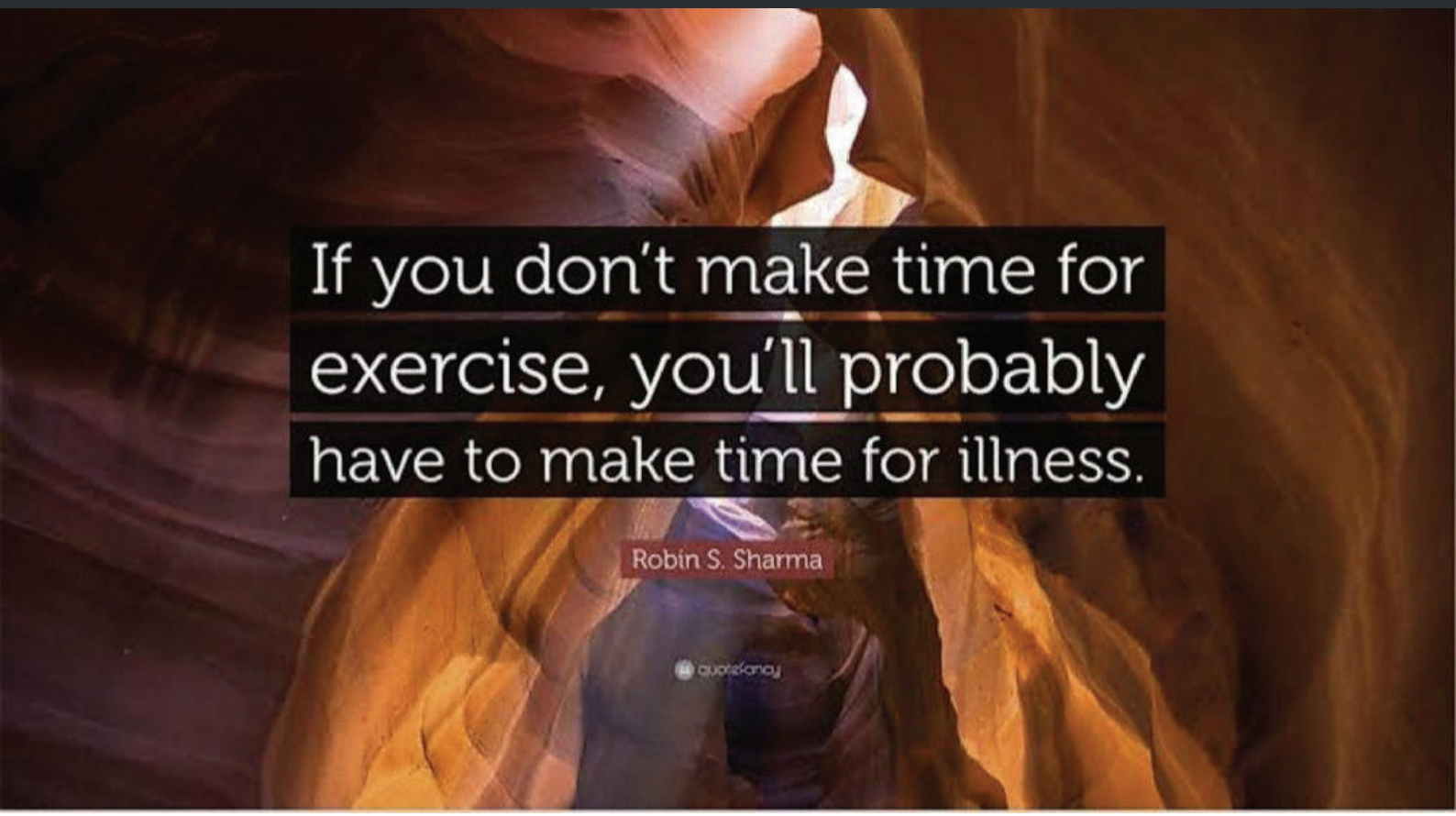
Previously, in the four successive health sector development plans, the Ministry of Health gave due attention on promotive and preventive health services only. Currently, in the HSTP, rehabilitation is one of the major initiatives. Thus the Ministry of Health is determined to start strengthening the basic areas of rehabilitative care/ procedures that are feasible within the Ethiopian hospital setting through training, capacity building, awareness raising, strengthening and establishing rehabilitation setup with in hospitals.

The purpose of this guideline is to give guidance and support to scale up and strengthen the rehabilitative service in hospitals. In addition, it will help to standardize and promote quality of rehabilitative services across the country.

This document specifically will focus on the four specialties of rehabilitation services which are currently available in the country: physiotherapy, occupational therapy, speech-language therapy and prosthetic-orthotic and mobility aids.

This guideline is prepared based on the EHTSG format, the minimum requirement on practice, premises, product and professionals can be referred from the EFMHACA minimum standard for hospitals based on the Ethiopian health facilities tiers as primary, general and comprehensive specialized hospital.

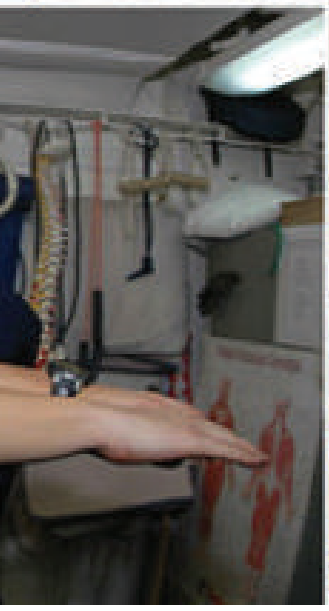
[2] World report on disability 2011
[3] Ministry of Labour and Social Affairs, National Physical Rehabilitation Strategy, 2010


If you don't make time for
exercise, you'll probably
have to make time for illness.
Robin S. Sharma

CHAPTER ONE: PHYSIOTHERAPY SERVICE





SECTION 1. INTRODUCTION

Physiotherapy is the main component of rehabilitation service. Physiotherapy involves the sphere of health promotion, prevention, curative, and rehabilitative aspects of movement disorders and dysfunctions within the life span of a person from birth to death. It's a health care profession specialized in treating and recovering a human body function that was impaired by an illness, accident or surgeries. Evidence suggests that it can reduce the functional difficulties associated with ageing and improve quality of life. Physiotherapy has many specialties including cardiopulmonary, geriatrics, neurologic, orthopedics, sports medicine, pain management, burn management, pediatrics and others.

SECTION 2. OPERATIONAL STANDARDS

1. The hospital should have Physiotherapy department/unit led by Physiotherapist, or if not available with relevant rehabilitation professional.
2. The hospital should have a Physiotherapy unit, staffed with necessary infrastructure, appropriately trained personnel and equipped with necessary equipment, drugs and supplies needed to provide quality Physiotherapy services.
3. The hospital should have environmental disability accessible Physiotherapy department.
4. The hospital should provide physiotherapy service during working hours, in working days.
5. The Hospital should establish management structures and job descriptions that detail the roles and responsibilities of each discipline within services/departments/units, including reporting relationships.
6. The hospital should establish well-equipped service specific physiotherapy assessment and treatment rooms with necessary equipment and supplies as per hospital tier level of care.
7. The hospital has physiotherapy department waiting area with adequate lighting, ventilation and multimedia facilities.
8. The hospital should establish Physiotherapy patients' appointment and queuing management systems.
9. The hospital implements multidisciplinary team patient rounds, assessment, care planning and visit services for admitted patients.
10. The hospital should incorporate physiotherapy service modalities on its financial and procurement policy.
11. The hospital should arrange guidelines for assessment, implementation and evaluation, verbal and written communication about patient care, including verbal orders and patient handover by discipline and between disciplines
12. The hospital should be keen to facilitate CPD scheme for the Physiotherapist/s working in the physiotherapy department.

SECTION 3
IMPLEMENTATION GUIDANCE

3.1 ORGANIZATION OF PHYSIOTHERAPY SERVICES

1. The service should be directed by the registered and licensed physiotherapy professional.
2. The hospital should have adequate number of physiotherapists which work as outpatient and inpatient service provider (using Workload Indicators of Staffing Need)
3. Only registered and licensed physiotherapists shall provide the physiotherapy service. (Staff should not be offering Physiotherapy services without having the required training to do so. This is in the interests of safety of patients, maintaining standards, professional protection and title protection for Physiotherapists to maintain this standard).
4. Continuous professional development should be encouraged and such opportunities shall be facilitated by the hospital.
5. Any physiotherapy procedures and intervention should be as per the scope of practice of FMHACA.

3.2 RESOURCES NEEDED FOR PHYSIOTHERAPY SERVICES

3.2.1 PERSONNEL

In order to deliver efficient and quality Physiotherapy services, the hospital Physiotherapy should be staffed by appropriate professional mix and number based on the volume of services and work load. Hospital Physiotherapy should have the following positions and professional mix: Doctor of Physiotherapy specialist (Orthopedic specialist, Neurology specialist, cardiopulmonary specialist and Pediatric specialist, physiatrist), PhD in physiotherapy, Doctor of Physiotherapy, physiotherapy specialist (MSc), physiotherapist (BSc), physiotherapy technician and physiotherapy assistant, ... etc as required for the service standard and whose license registration is current. The department/unit should also have administrative personnel with training appropriate to the size and scope of the service. The department/unit implements a policy to encourage and support participation in CPD activity of all the physiotherapy professionals in order that they may keep abreast of rapidly changing practice in this area of medicine.

3.2.2 PREMISES AND FACILITIES

- There shall be a separated room or area for physiotherapy.
- There shall be direct access to inpatients and outpatients departments with clear signage
- The premises shall be friendly for persons with disability and shall have ramp with handrail for wheelchairs.
- Separate wash room with hand washing facility in an accessible location, suitable for impaired/disabled accessible, and well-ventilated shall be available
- There shall be a separate room for exercise therapy within the department
- There shall be enough space for assistive devices and appropriate accessories

- There shall be client friendly waiting area.
- Staff room for developing documentation and storing reference books and personal items shall be available.
- Private room for patients and staff when they need to change closing before and after treatment shall be available.
- Call bells/beeper bells shall be provided to patients in the Physiotherapy service who are not under visual supervision.

3.2.3 EQUIPMENT

- All equipment shall be clean and functional
- Equipment shall be stored in a safe and accessible place and shall not be stored in a public walkways and hallways.
- Standard equipment and consumables which shall be available for physiotherapy services include:

3.2.3.1 CLINICAL ASSESSMENT TOOLS

1.	Anatomical wall charts including Skeletal, Nervous, Respiratory, circulatory, digestive and arthrology system
2.	Anatomical models for education and reference flexible spinal column and standard human skeleton.
3.	Hand held Dynamometer
4.	Doppler
5.	Pinch gauge
6.	Tuning forks
7.	Percussion and neurological hammers
8.	Sensory monofilaments
9.	Measuring tape
10.	Inclinometer
11.	Goniometers with large, medium and finger/digit.
12.	Megatoscope (x-ray view machine)
13.	Platform and/or floor scale
14.	Sphygmomanometers
15.	Stethoscopes
16.	Spirometer with disposable mouth piece
17.	Weight scale with separate foot screen
18.	Any other necessary equipment

3.2.3.2 THERAPEUTIC EXERCISE EQUIPMENT

(This equipment should be appropriate for both children and adults, robust and easy to clean to guarantee appropriate hygiene)

1.	Therapy putty with different resistances, tan, yellow, red, green, blue.
2.	Squeeze balls, with three tension levels soft, medium and firm.
3.	Power web with progressive resistance
4.	Adjustable wrist and ankle weights
5.	Resistive exercise bands, with different resistance peach, orange, green, blue, plum.
6.	Shoulder wheel
7.	Shoulder pulley
8.	Exercise charts/cards and or software demonstrating stretching, strengthening, mobilizing.
9.	A set of dumbbells 1-8 kg
10.	Patient comfort equipment's, wedges, rolls, bolster, raised rolls(made of foam and coated with leather or plastic)
11.	Exercise mats
12.	A set of medicine balls 1-10 kg
13.	Spike balls
14.	Physio/swiss balls with at least 3 different circumferences.
15.	Stall bars(wall bars)
16.	Wobble boards and rocker boards
17.	Elbow mobilizers such as roller skates and Mechanical elbow mobilizer
18.	Therapeutic toys for training gross and fine motor skills
19.	Any other necessary equipment

3.2.3.3 CLINICAL FURNITURE

1.	Pediatric positioning chair (CP chair)
2.	Multipurpose storage units
3.	Training stairs with 4 and 8 inches height steps
4.	Portable postural mirror with a height of above the average
5.	Mechanically height adjustable parallel bars
6.	Couches: Adjustable/ non adjustable
7.	Adult and pediatric tilt table
8.	Spinal decompression machine
9.	Mechanical and Electrical traction machine (Cervical and Lumbar)
10.	Quadriceps bench
11.	Treadmill (with Body weight support)
12.	Continuous Passive motion(CPM) Machine

13.	Stationary bicycles
14.	Gait belts with different sizes
15.	Rolling stand up walkers for both adult and child
16.	Tetra pod canes
17.	Auxiliary and elbow crutches with adjustable heights and both pediatric, adult sizes
18.	Refrigerator
19.	Filing cabinet for patients documentation
20.	Any other necessary equipment

3.2.3.4 ACCESSORIES/CONSUMABLE/RENEWABLES

1.	Kinesio tape
2.	Electrodes with different sizes
3.	Dry needles for Dry needling techniques (DNT)
4.	Iontophoresis electrode
5.	Pressure garment
6.	Sonic transmission jell
7.	Cold spray (vasocoolant spray)
8.	Friction decreasing agents like Petrolatum, Paraffin, Baby powder
9.	Organ protection pad,
10.	Assessment forms, folders for proper filing, stationary etc
11.	Any other necessary equipment

3.2.3.5 ELECTRO PHYSICAL EQUIPMENT

1.	Nerve conduction study and Electromyogram machine
2.	Portable TENS device
3.	Muscle stimulator (Faradic and Galvanic current)
4.	Therapeutic ultrasound
5.	Hot and cold packs
6.	Infrared sources it might be in the form of lamp, belts and pads.
7.	Ultraviolet ray source
8.	LASER
9.	Diathermy
10.	Electro-massage apparatus for hands, legs, spine,
11.	Any other necessary equipment

SECTION 4
IMPLEMENTATION CHECKLIST AND INDICATORS

4.1 ASSESSMENT TOOL FOR OPERATIONAL STANDARDS

In order to determine if the Operational Standards for Physiotherapy Services have been met by the hospital an assessment tool has been developed which describes criteria for the attainment of a Standard and a method of assessment. This tool can be used by hospital management or by an external body such as the RHB or FMOH to measure attainment of each Operational Standard.

4.2 IMPLEMENTATION CHECKLIST

The following table can be used as a tool to record whether the main recommendations outlined above have been implemented by the hospital. This tool is not meant to measure attainment of each Operational Standard, but rather to provide a checklist to record implementation activities.

TABLE 1 CHECKLIST

No	Standard	Method of Evaluation	Met	Unmet
1.	The hospital provides physiotherapy service.	• Physiotherapy department/unit is established with service provide during working hour//day. • The dep't/unit has strategic and annual plan with budget allocated by SMT • There is registration logbook of patients received service(HMIS)		
2.	There is a designated area in the hospital, including area for physiotherapy service according to standards outlined	• Physically separated room or area for physiotherapy • Client friendly waiting area		
3.	Relevant physiotherapy equipment and resources have been procured	• Equipment and material(Medical supplies) needed are included in the hospital medical equipment list • Strategic and annual plan for equipment procurement is developed and budget allocated • Documented request for equipment procurement by the department/unit		
4.	Trained physiotherapy professionals have been recruited and employed	• Adequate professional mix and number based on the volume of services and work load is available		

	The hospital should establish management structures and job descriptions that detail the roles and responsibilities of each discipline within services/ departments/units, including reporting relationships.	There is assigned team coordinator with defined job description All staff members of the department/ unit have job description defining their role and responsibility There is established inter & intra reporting mechanism		
5.	There are written guidelines for the assessment, implementation and evaluation, verbal & written communication of physiotherapy services	• Guideline for verbal & written communication • Guideline/protocol for assessment & treatment		
6.	The hospital should have environmental disability accessible Physiotherapy department	• There is ramp with handrails for walk way to the Physiotherapy department/ lift that fit to wheelchairs		
7.	The hospital should establish Physiotherapy patients' appointment and queuing management systems.	• There is established manual or electronic for patient appointment system Or • Integrated with the hospital MRD appointment system • Service should be delivered based on severity of the case and first-come, first –served basis		
8.	The hospital should implements multidisciplinary team patient rounds, assessment, care planning and visit services for admitted patients.	• Prepared multidisciplinary team approach manual (for both intra and inter) • Established intra rehabilitation multidisciplinary team approach (planned and schedule program) • Established integrated team approach with other medical personnel's (programmed, scheduled and assigned professionals for the program)		
9.	The hospital should be keen to facilitate CPD scheme for the Physiotherapist/s working in the physiotherapy department.	• The hospital implements CPD scheme for the department in accordance with the hospital HR manual and FMHACA CPD manual.		

4.3 INDICATORS

Further to the above, the physiotherapy service maybe monitored using the following indicators to assess the effectiveness or the implementation of the service.

No	Indicator	Formula	Frequency
1.	Number of patient seen at physiotherapy service unit	Total number of patients seen in a given period	Monthly
2.	Rate of patients referred back to physiotherapy service after two weeks of discharge	No of back referrals *100/Total number of patients seen	Quarterly
3.	Proportion of physiotherapist to patient	Number of physiotherapist Number patient seen per day	Monthly

ANNEX

According to the minimum standard set by FMHACA the required area for the physiotherapy service is as follows

Premises required	No. required	Area required
• Reception, Recording & Waiting area	1	20 sq. m
•Consultation/ Examination room	1	12sq. m
• Exercise room	1	20 sq. m
• Treatment room	1	20 sq. m
• Toilet room (male & female)	1	8 sq. m
• General purpose room	1	
• Store room	1	
• Incinerator (fixed/ mobile)	1	

SOURCE DOCUMENTS

1. Emergency medical teams: minimum technical standards and recommendations for rehabilitation. Geneva: World Health Organization; 2016.
2. Rehabilitation in health systems. Geneva: World Health Organization; 2017.
3. Physical exercise, an important tool for physical therapy, Nova science publisher 2015, New York
4. Ethiopian Standards Agency, Comprehensive Specialized Hospital – Requirements, First Edition ES3618:2012


I MAKE A DIFFERENCE
it changes lives
no one does client empowerment as well as OTs do
therapy can address so many problem areas
it puts a smile on children
s such a rewarding field to be able to make such a difference in people and families
I love occupational therapy because
BEING ABLE TO MAKE A DIFFERENCE IN PEOPLES LIVES
OF ITS REWARDING OUTCOMES
it puts a smile on children
it helps individuals realize their potentials
I can be creative and make a difference in the lives of so many deserving individuals
IT IS I LOVE REWARDING OCCUPATIONAL THERAPY BECAUSE
CHALLENGES ME EVERYDAY
WE FOCUS ON WHAT
I WILL always have a job
it is empowering
CLIENTS ARE EMPOWERED
we can handle anything
hoping to bring happiness to others whilst making yourself happy in the process by being involved
THE MAIN IDEA OF IT IS TO PROMOTE INDEPENDENCE AND SUCCESS
IT ALLOWS ME TO TOUCH LIVES IN POSITIVE WAYS
s meaningful to the client
everyone should have a purpose in life and no matter what challenges you have
hoping to bring
happiness to others
whilst making yourself
happy in the process by
being involved
OT MAKES A DIFFERENCE
IT IS FULFILLING TO SEE HOW WE IMPACT PEOPLE'S LIVES
I GET TO BE CREATIVE
of the funny things the kids say
s faces
AND FUN
it helps children cope
It is a fun way to learn
WE HELP PEOPLE TO HELP THEMSELVES
I CAN BE CREATIVE AND MAKE A DIFFERENCE IN THE LIVES OF SO MANY DESERVING INDIVIDUALS
THERAPY CAN ADDRESS SO MANY PROBLEM AREAS
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CHAPTER TWO: OCCUPATIONAL THERAPY SERVICE

SECTION 1. INTRODUCTION

Occupational therapy is a treatment for physically, psychologically and mentally sick or disabled persons through purposeful activities such as games, weaving and working with different activities (World Federation of Occupational therapy, Jan 2002).

Occupational therapy (OT) promotes wellness through day to day activities (occupations). The profession helps people of all ages overcome challenges to participation in their daily lives by developing the "living skills" necessary for independence and satisfaction. Occupational therapists often use environmental adaptation; splinting, assistive devices, work simplification and work hardening to help the individual engagement in meaningful daily activities, maintain his/her sense of well-being and prevent regressing in function to ensure one's satisfaction in life.

Professionals

The hospital should identify appropriate number and type of Occupational Therapy staff, job descriptions should be written to detail, the roles and responsibilities of each member of staff, including reporting relationships.

Premises

The hospital should establish at least one physically separated room or area for therapy that has wheelchair access, suitable toilet facilities and direct access to inpatients and outpatients.

SECTION 2. OPERATIONAL STANDARDS

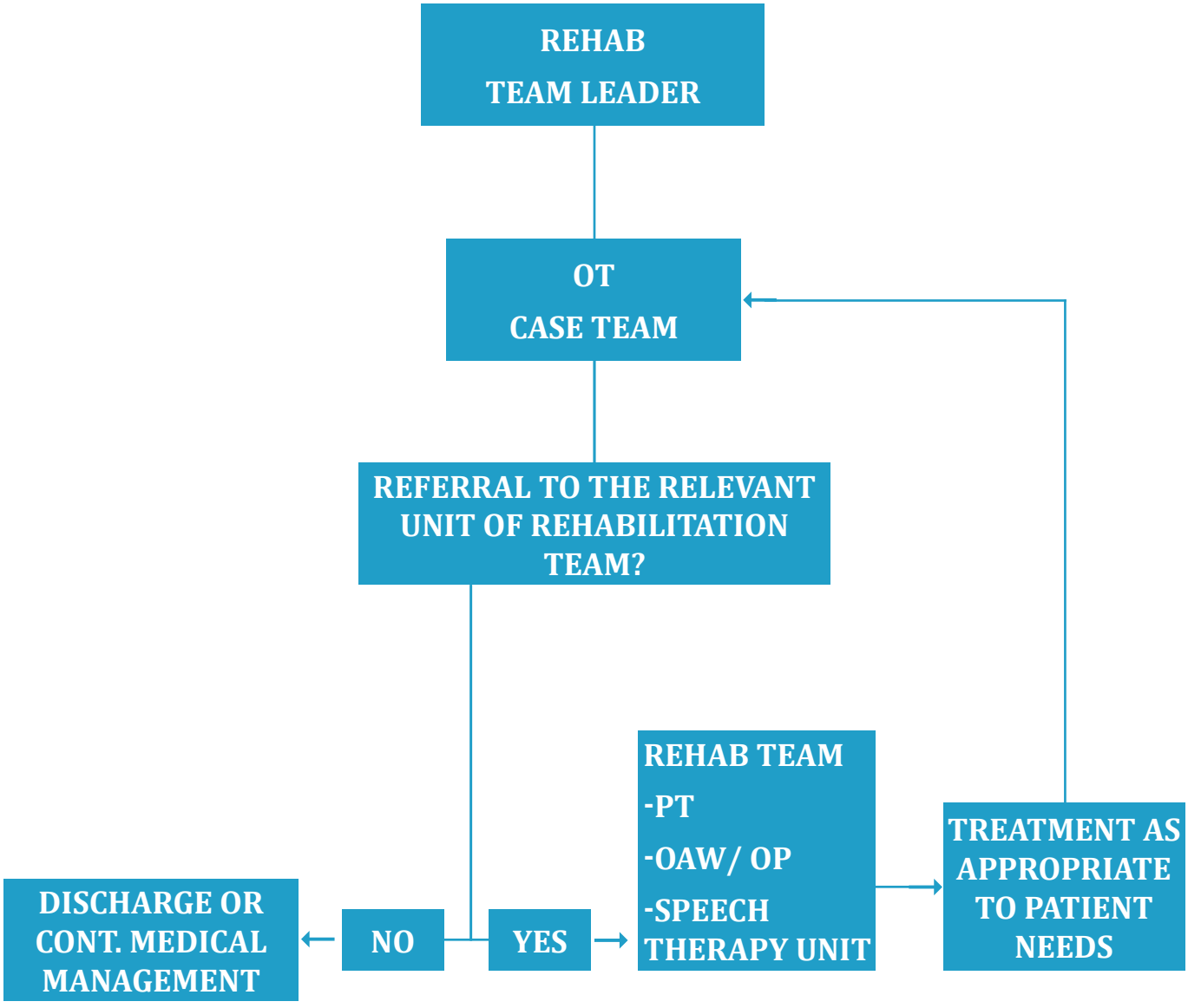
1. All hospitals should establish a guiding management structure for the O.T service
2. The hospitals should have licensed OT professionals or any medical / health care personnel, who took at least short term training on OT as part of a multidisciplinary team.
3. The hospitals should have a written standard operational procedure to provide OT services, including patient-centered OT care plan preparation, conduct assessments based up on tools and making referrals.
4. The hospital should establish a mechanism of assuring a safe and effective OT service provision unit.
5. The hospital should adopt and measure the OT service legislation, health and social policy guiding principles.
6. The hospital OT unit should create a mechanism of linkage and intra-referral with stakeholders including associations of peoples with disability

7. The hospital should ensures financing and procurement policies that ensure assistive products are available based up on the demand.
8. The hospital should have guiding principles to incorporate the OT service in the list of hospital's other clinical services that are covered by the national social health insurance policy.

SECTION 3. IMPLEMENTATION GUIDANCE

3.1 STRUCTURE OF O.T WORK FLOW

The diagram below can refer to any of the clinical service areas demonstrating that the units of the O.T team can be referred to by any service area in the hospital.



Organization of OT Services

- The service shall be directed by the qualified occupational therapist graduated from a recognized university or institute.
- The hospital shall have an adequate number of OT which work as outpatient and inpatient service provider. (using Workload Indicators of Staffing Need)
- All practitioners those are working in the OT unit shall be certified as occupational therapists.
- Continued improvement of technical skills and knowledge should be encouraged and such opportunities shall be facilitated by the hospital.

3.2 STANDARD OPERATING PROCEDURES IN OT SERVICE

- The unit shall perform assessments on patient safety and functional needs
- The unit shall prepare SOPs and update on periodical basis
- The unit shall give counselling and functional education

3.3 SAFETY FEATURES RELATED WITH OT SERVICE PROVISION

- Supply safety and treatment garments and splints
- Adaptive tools teaching techniques
- Ensuring the presence of standard premises

3.4 LEGISLATIONS AND POLICIES IN OT SERVICE PROVISION

- Use national professional and treatment guidelines
- Use rehabilitation association regulations

3.5 COLLABORATIVE LINKAGE WITH OTHER STAKEHOLDERS

- Identify priority areas of OT service and establish procedures for collaboration within the rehabilitation team and external stockholders

3.6 BUDGETING

- Ensure annual budget and procurement plan has prepared for OT service as of the other clinical service areas.

3.7 SOCIAL HEALTH INSURANCE AND OT SERVICE

- OT service should be included as part of other clinical services that are recommended to get the social health insurance coverage

SECTION 4.
IMPLEMENTATION CHECKLIST

S/N	Standards	Verification Criteria	Met	Unmet
1	The hospital established a guiding management structure for the O.T service	• See the hospital's organogram		
2	The hospital should have licensed OT professionals or any medical / health care personnel, who took at least short term training on OT as part of a multidisciplinary team	• See the HR professional profile • See the attached list of job descriptions available in the professional profile • See short term training certificates from the professional profile		
3	The hospital should have a written standard operational procedure to provide OT services	• See the prepared SOP		
4	The hospital should establish a mechanism of assuring a safe and effective OT service provision unit	• See list of safety commodities and supplies used in the OT • See the OT unit cleanliness, safety, barrier-free and easily accessible for patients		
5	The hospital should adopt the OT service legislation, health and social policy guiding principles	• See adopted written hospital policy service legislations and principles		
6	The hospital OT unit should create a mechanism of linkage and intra-referral stakeholders including associations of peoples with disability	• See the OT unit linkage and intra-referral protocol • See service MOU agreement between the hospital and key stakeholders		
7	The hospital ensures financing and procurement policies that should ensure assistive products are available based up on the demand.	• See the annual budget plan for procurement and production of the assistive devises • See the document on the need based assessment		
8	The hospital should have guiding principles to incorporate the OT service in the list of hospital's other clinical services that are covered by the national social health insurance policy.	• See the OT service in the list of other clinical services list that are delivered by the hospital		

Indicators

S/q	Indicators	Formula	Frequency
1	Number of clients seen by the OT unit	Total number of patients seen in a given period	Monthly
2	Number of patients referred back to the general rehabilitation unit for continued treatment or discharge	Total number of patients/ clients referred back * 100 Total number of clients seen	Quarterly
3	Number of procedures (functional activities) done by the OT unit	Number of patients given meaningful activities	Monthly

ANNEXES

Activity rooms

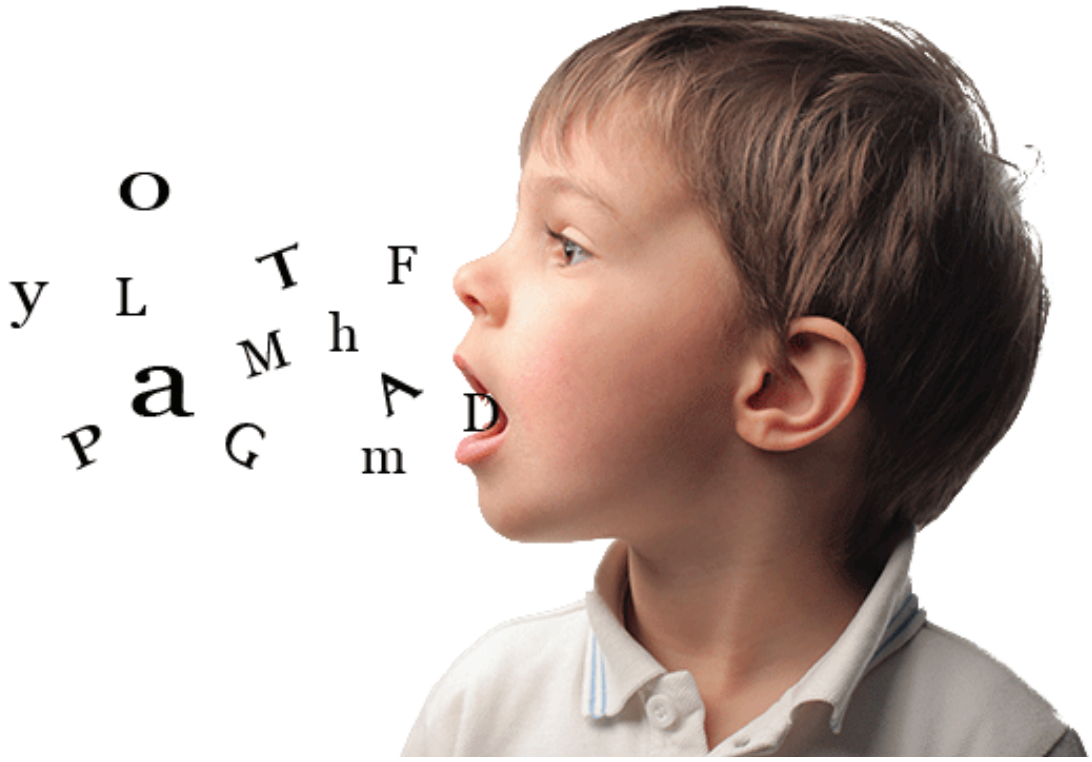
- One examination room
- General physical disability treatment room
- pediatric treatment room
- OT office
- Recreation with occupational exercises room for long term pt

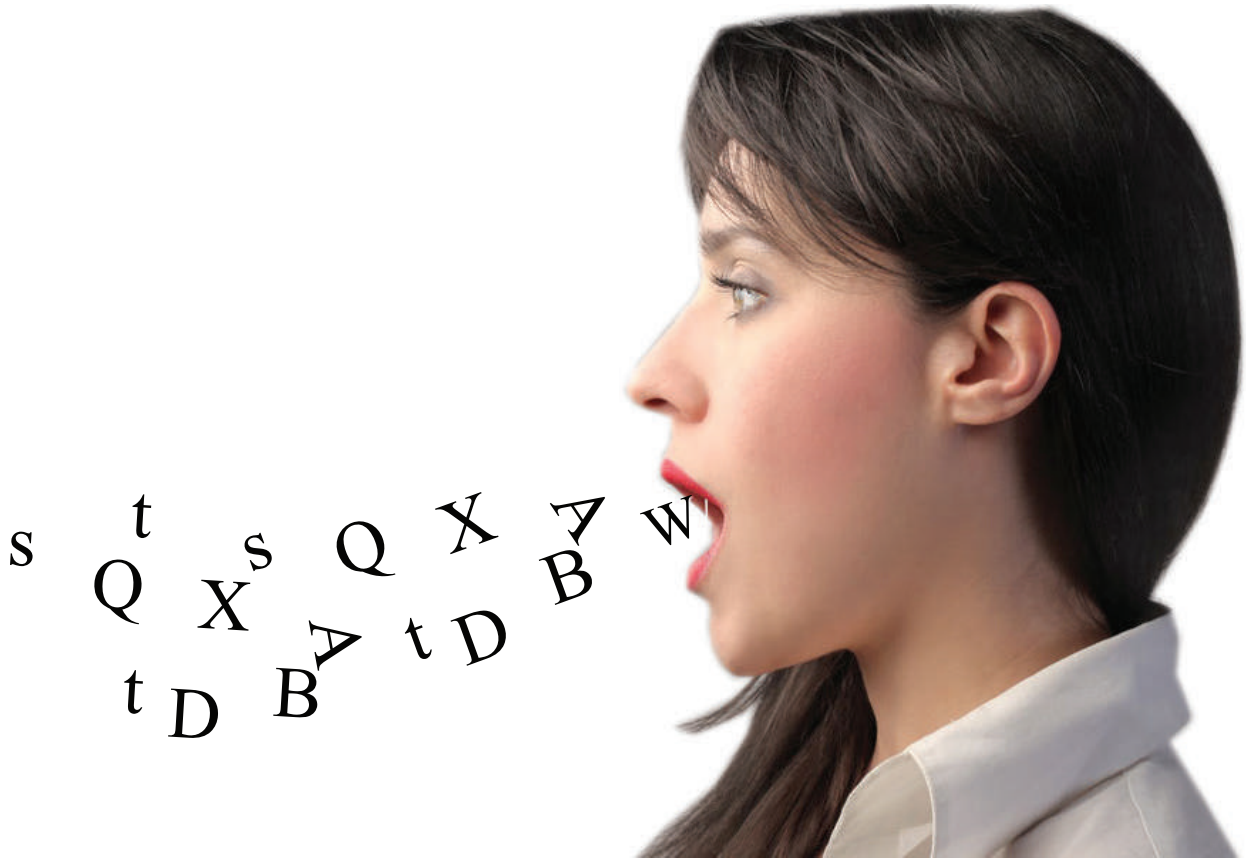
List of OT equipment

- Position equipment –Floor, sitter with mobility, relaxation chair, standing in frame, crutches, mirror, chair and table, etc.
- A.D.L Training units –Eating aids, Dressing frame set, bathing aids, work, etc.
- Evaluation system - Hand dynamometer, Pinch Gage, Goniometry, Dexterity test, puzzles, finger prehension test, surgical/ disposable gloves, etc.
- Exercise units -sanding unit for reciprocal exercise, vertical, semicircular, overhead, quadriceps exercise chair, wax tray, supinator & pronator, walking board, Roller etc.
- Sensory motor/ perceptual motors – Ladder, Roll system with rope, Target game (darts), Equilibrium board, pegs etc.


Hear
Talk
Language
Homophones
Homonyms
Describe
Ask
Questions
Explain
Pragmatics
Expression
Synonyms
Adjective
Communication
Tell
Compare
Sentences
Phonology
Answer
Speak
Adverb
Speech
Syntax
Verb
Articulation
Listen
Contrast
Antonyms
Noun
SocialSkills
Categories
Taketurns

CHAPTER THREE: SPEECH-LANGUAGE PATHOLOGY SERVICES





SECTION 1. INTRODUCTION

Speech-language pathology services are those services necessary for the diagnosis and treatment of swallowing (dysphagia), speech-language, and cognitive-communication disorders that result in communication disabilities. Speech-language pathologists treat disorders of speech sound production (e.g., articulation, apraxia, dysarthria), resonance (e.g., hypernasality, hyponasality), voice (e.g., phonation quality, pitch, respiration), fluency (e.g., stuttering), language (e.g., comprehension, expression, pragmatics, semantics, syntax), cognition (e.g., attention, memory, problem solving, executive functioning), and feeding and swallowing (e.g., oral, pharyngeal, and esophageal stages). (ASHA, 2007a).

The purpose of this chapter for speech-language pathology is to serve as a resource for health plans to use in all facets of claims review and policy development. It provide an overview of the profession of speech-language pathology including speech-language pathologist qualifications, standard practices, descriptions of services, documentation of services, and treatment efficacy data

SECTION 2. OPERATIONAL STANDARDS

1. The hospital shall have speech therapy unit led by speech language pathologist as a unit head,
2. The hospital has a speech therapy unit, organized with necessary infrastructure which is suitable for all kind of disability.
3. The hospital shall have appropriately trained personnel and equipped with necessary assessment and therapy tools required to provide quality speech therapy services.
4. The hospital shall have disability accessible speech therapy department.
5. The hospital shall provide speech therapy service during working hours, in working days.
6. The hospital shall establish management structures and job descriptions that detail the roles and responsibilities of each discipline within services/departments/units, including reporting relationships.
7. The hospital shall have well-equipped service specific speech therapy assessment and treatment rooms with necessary equipment and supplies for each hospital.
8. The hospital shall have speech therapy department waiting area with adequate lighting, ventilation and multimedia facilities.
9. The hospital shall have established speech therapy patients' appointment and queuing management systems.
10. The hospital shall implement multidisciplinary team patient rounds and visit services for admitted patients.
11. The hospital shall establish guidelines for verbal and written communication about patient care, including verbal orders and patient handover by discipline and between disciplines

SECTION 3. IMPLEMENTATION GUIDANCE

3.1 ORGANIZATION OF SPEECH THERAPY SERVICES

- The service shall be directed by the qualified speech therapy professional or assistant speech therapist graduated from recognized university or institute.
- All practitioners shall be licensed and only licensed speech therapist shall provide speech therapy service.
- The speech therapists shall be supported by the hospital to get continual education, and training for more knowledge and skill development.

3.2 RESOURCES NEEDED FOR SPEECH THERAPY SERVICES

3.2.1 PERSONNEL

The minimum requirement for speech therapy service must be BA degree in speech and language therapy/or pathology and the maximum requirement master's degree in speech language pathology /therapy and above.

3.2.2 PREMISES AND FACILITIES

- There shall be a separated room or area for rehabilitation and therapy.
- There shall be direct access to inpatients and outpatients with clearly written labels.
- The building shall be friendly for persons with disability and shall have smooth pavement rail for wheelchairs.
- There shall be enough space for assistive devices and appropriate accessories
- There shall be waiting area.
- Staff room for developing documentation and storing reference books and personal items shall be available.
- Separate toilet with hand washing facility in an accessible location, with accessible facilities for patients with disability, and well-ventilated facility shall be available.
- There shall be a separate room for therapy sessions.

3.2.3 EQUIPMENT

- All equipment shall be clean and functional
- Equipment shall be stored in a safe and accessible place.
- Standard equipment and consumables which shall be available for rehabilitation services include:

3.2.3.1 CLINICAL SPEECH THERAPY ASSESSMENT TOOLS

1	Articulation assessment book prepared by the speech and language therapist
2	Access to Nasometry
3	Access to Nasoendoscopy
4	Weight scale adult and child
5	Access to nasal speculum (x2) different size scopes (which goes with nasoendoscopy)
6	Access to Videofloroscopy
7	Dictaphone
8	Pen torch

3.2.3.2 FURNITURE, THERAPY EQUIPMENT AND TOOLS

1	Cupboard/ locker for staff
2	White board
3	Computers and computer desk with chairs
4	Filing cabinet
5	Open shelf
6	Tea cups
7	Spoons
8	Plates
7	Language game software (English- could be adapted for local languages)
8	Different Picture cards
9	Paper tray
10	Laminating machine
11	Paper shredder +binder
12	Photocopy machine
13	Scanner
14	Video camera
15	Digital camera
16	TV+ TV stand
17	DVD player
18	Kids chair and table
19	Kids mats
20	Office table (desk) and chair for each therapy room
21	Portable mirror(big and small size)
22	Rinsing basin for disinfection
23	Different size toys and toy baskets
24	Relevant text books

25	Standardized assessment books for all causes
26	Color printer
26	Journals

3.2.3.3. EXPENDABLE MATERIALS

1	Disinfectant /antiseptics
2	Tongue depressors
3	Gloves
4	Pen and pencil
5	Laminating plaster
6	Laminator
7	Stickers
8	Post it notes
9	Coloring pencils
10	Markers (permanent +
11	Whiteboard)
12	Notebooks
13	Photocopier
14	Scissors
15	Ruler

SECTION 4
IMPLEMENTATION CHECKLIST AND INDICATORS

4.1 ASSESSMENT TOOL FOR OPERATIONAL STANDARDS

In order to determine if the Operational Standards for Speech Therapy Services have been met by the hospital an assessment tool has been developed which describes criteria for the accomplishment of a Standard and a method of assessment. This tool can be used by hospital management or by an external body such as the RHB or FMOH to measure attainment of each operational Standard.

4.2 IMPLEMENTATION CHECKLIST

The following Table can be used as a tool to record whether the main recommendations outlined above have been implemented by the hospital. This tool is not meant to measure attainment of each Operational Standard, but rather to provide a checklist to record implementation activities.

Table 1 Checklist

No	Checklist	Yes	No
1.	The hospital provides Speech therapy service.		
2.	There is a designated area in the hospital, including area for Speech therapy service according to standards outlined		
3.	Relevant equipment and resources have been procured		
4.	Trained speech therapist professionals have been recruited and employed		
5.	There are written guidelines for the assessment, implementation and evaluation of speech therapy services		
6.	The hospital has included the speech therapy service in the organogram		

4.3 INDICATORS

The speech therapy service use different indictor to see the effectiveness of the treatment, the quality of the treatment and the implementation of the treatment. The speech therapist uses the following indicators.

No	Indicator	Formula	Frequency
1.	Number of patient seen at speech therapy service unit and received speech therapy assessment.	Total number of patients seen in a given period	Monthly

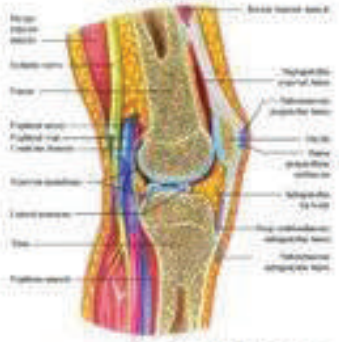
Source Documents

- American Speech-Language-Hearing Association. (2007a).Childhood Apraxia of Speech [TechnicalReport]. Available fromwww.asha.org/policy.

- Brady, MC; Kelly, H; Godwin, J; Enderby, P (May 16, 2012). "Speech and language therapy for aphasia followingstroke.".TheCochranedatabaseofsystematicreviews.5:CD000425.doi:10.1002/14651858.CD000425.pub3. PMID 22592672.

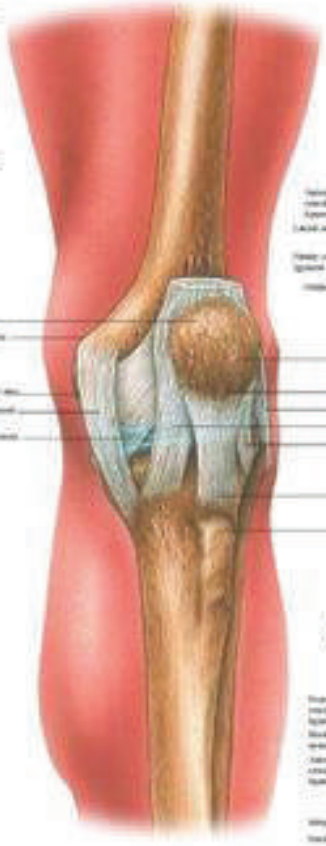
THE KNEE JOINT

Longitudinal section through the knee joint

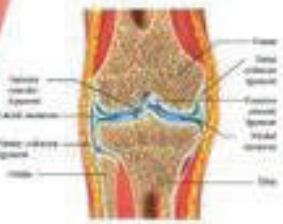


Right patella - frontal view

Right patella - posterior view

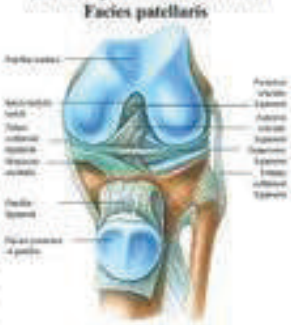


Frontal section through the knee joint

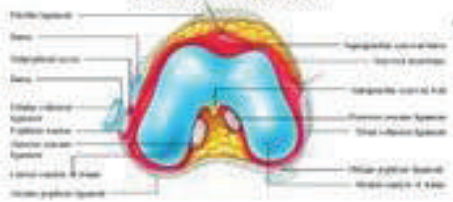


Cruciate ligaments and menisci of the knee joint seen from front

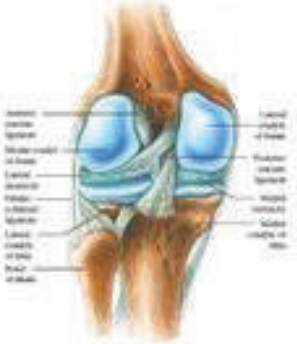
Facies patellaris



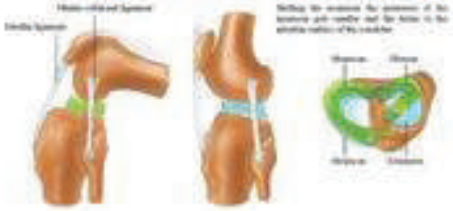
The Knee - Inferior view



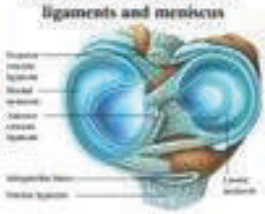
Cruciate ligaments and menisci of the knee joint seen from behind



Functional Anatomy



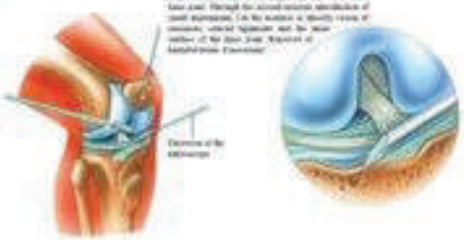
Head of tibia with cruciate ligaments and meniscus



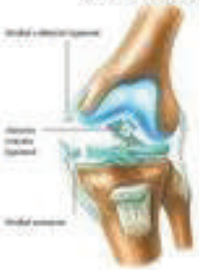
Injury and Pathology:

Lacerated / torn meniscus

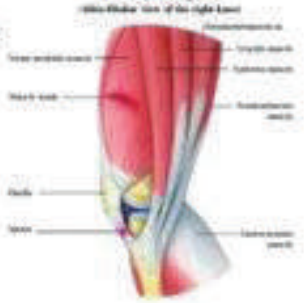
Arthroscopy



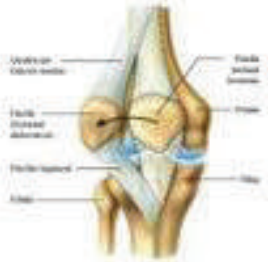
Rupture of the ligament and injury of the meniscus



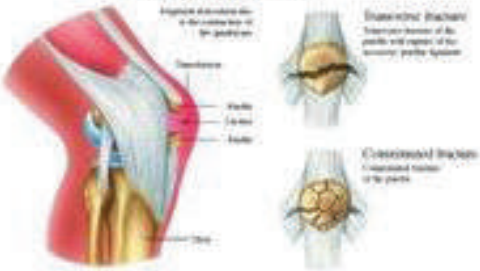
Traumatism of the knee joint



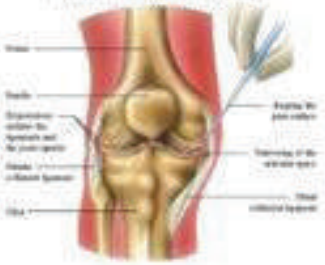
Luxation of the patella



Fracture of the patella

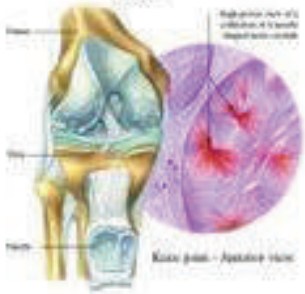


Arthrosis of the knee joint

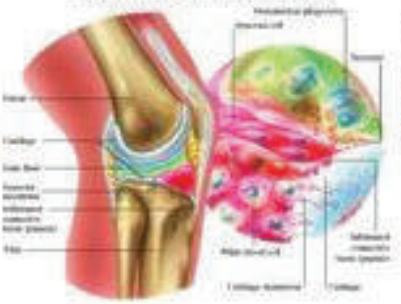


Prosthesis

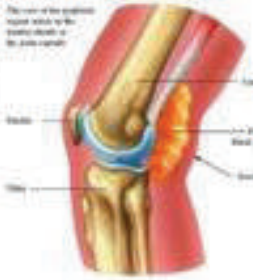
Gout



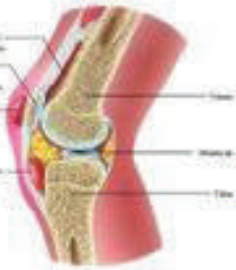
Rheumatoid chronic joint disease



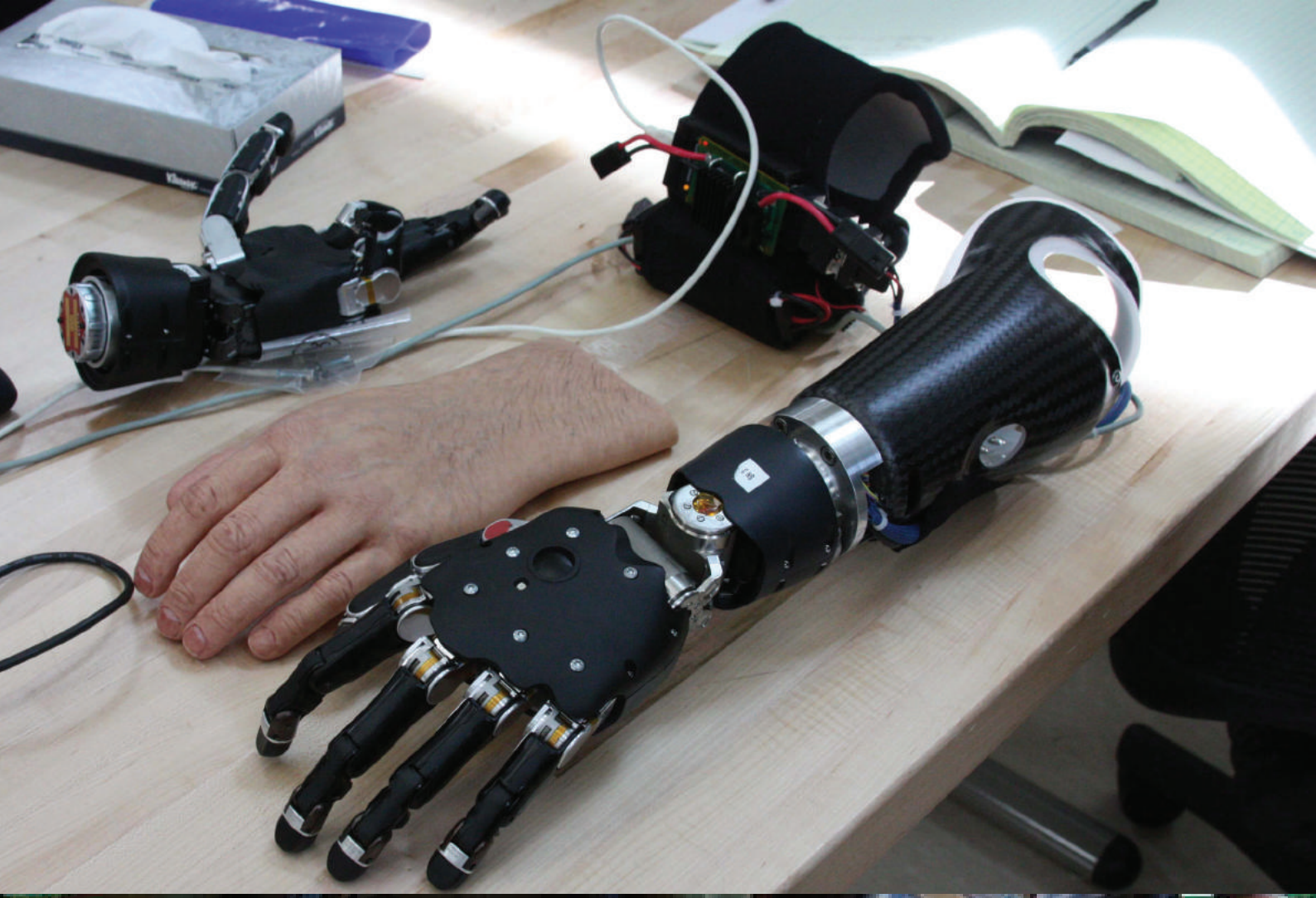
Cysts of the knee

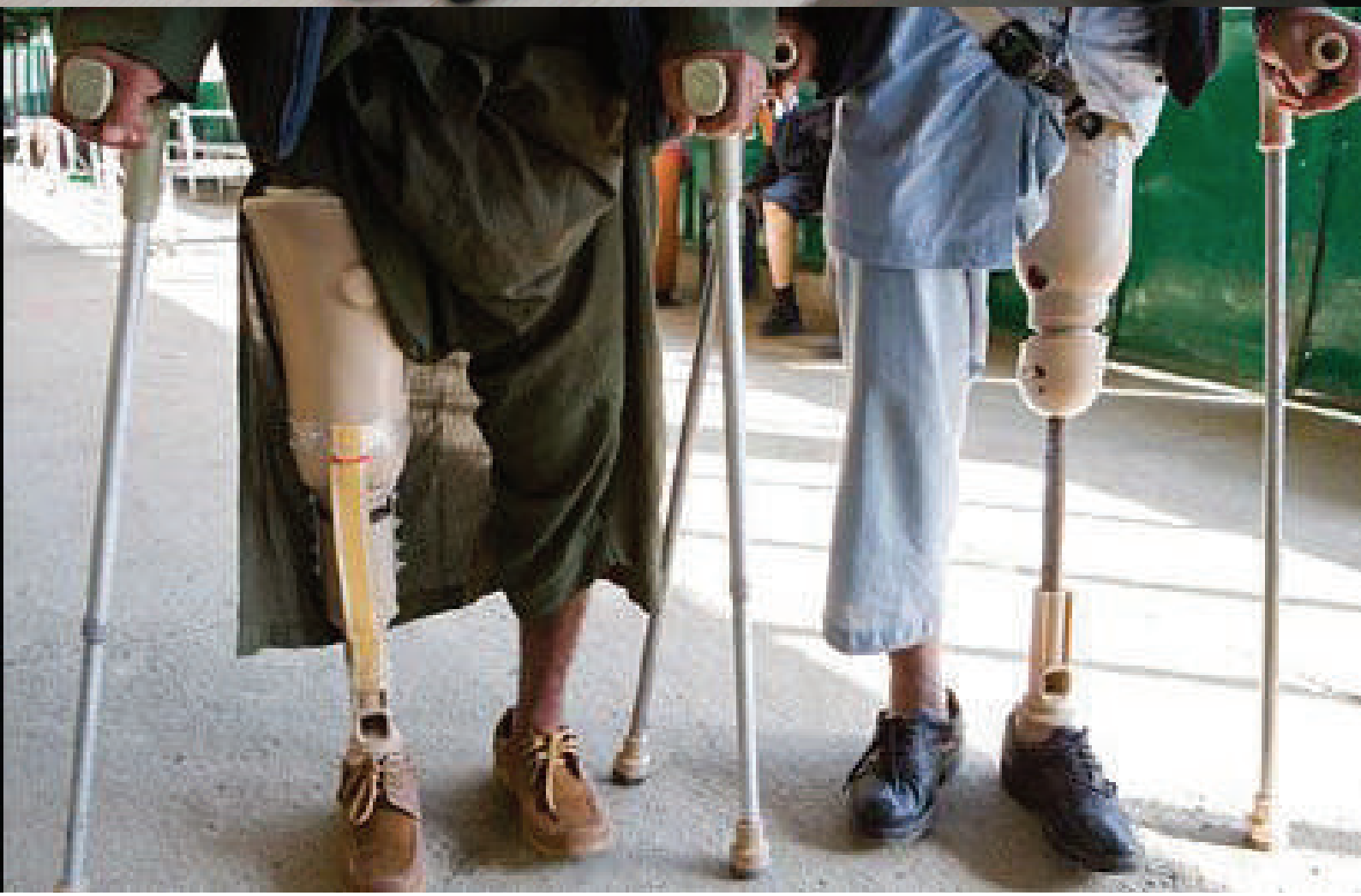


Bursitis



CHAPTER FOUR: PROSTHETICS, ORTHOTICS AND MOBILITY AIDS SERVICE





SECTION 1. INTRODUCTION

Prosthetics, Orthotics and Mobility Aids Services provision are one of the essential, effective, efficient and quality hospital services required to contribute to the health and wellbeing of the population served.

The short- and long-term plan of P&O service provider needs to be in line with the national physical rehabilitation strategy and plan of action that addresses several aspects of strategic and management issues. The program should be implemented in close collaboration with all hospital departments with particular link to orthopedics surgery and physiotherapy units.

Establishing contacts and networking with other local and international organizations working in the area of physical rehabilitation and disability are essential. The development of comprehensive rehabilitation services gives recognition and enhancement of the P&O services to play its significant role in the national health care program.

SECTION 2. OPERATIONAL STANDARDS

2. The hospital should have P&O unit led by a qualified P&O technologist.
3. The hospital's P&O unit should be populated with qualified personnel equipped with necessary resources – standard machinery, equipment, workshop, fitting and gait training space. The infrastructure of the service facility should be accessible to service users
4. The hospital should involve P&O experts to contribute in supply chain management
5. The P&O staffs should be engaged in providing their assigned duties and tasks as any other staff of the hospital.
6. The hospital should establish a management structure and job descriptions that detail the roles and responsibilities of each within the unit, including reporting relationships.
7. The hospital need to have a P&O unit with an accessible waiting area with adequate lighting and ventilation, adapted washroom multimedia facilities put in place
8. The hospital has established P&O patients' appointment and queuing management systems.
9. The hospital need to form a multidisciplinary team to conduct regular assessment, planning, implementation and evaluation of intervention processes and results.
10. The Hospital need to develop guidelines for verbal and written communication to facilitate continuum of services to maximize the functionality of service users by engaging different disciplines.
11. The Hospital should establish strong referral linkage with inter/intra departments of the hospital and other services outside the hospital.
12. The Hospital should have necessary health and safety equipment in the unit.

SECTION 3. IMPLEMENTATION GUIDANCE

3.1 ORGANIZATION OF P&O SERVICES

- The service should be directed by a qualified P&O professional graduated from recognized university or institute.
- The hospital should have adequate number of P&O professionals who work as service providers(using Workload Indicators of Staffing Need)
- All P&O professional should be licensed and only licensed P&O professional shall provide P&O service.
- Continued improvement of technical skills and knowledge should be encouraged and such opportunities shall be facilitated by the hospital.

3.2 RESOURCES NEEDED FOR P&O SERVICES

3.2.1 PERSONNEL

The provision of P&O services shall be part of the secondary/tertiary health care structure, particularly to the medical rehabilitation program.

Provision of P&O service requires more than one profession and should apply a multidisciplinary approach. This means that, pre and post prosthetics care including examination, prescription and treatment decision making requires intervention of other health professionals in addition to the P&O professionals, the major once are specialized doctors, physiotherapists, occupational therapists, social workers.

3.2.1.1 SECONDARY LEVEL

The P&O program at the secondary level apart from other medical and paramedical personnel, shall be staffed by all categories of P&O personnel and provides general prosthetics and orthotics services, including manufacturing and fitting of most common devices, i.e. Lower limb prostheses orthoses and provision of mobility aids like crutches and wheelchairs.

3.2.1.2 TERTIARY LEVEL

The P&O program at the tertiary level likewise the secondary level shall have all categories of P&O personnel and provides full range prosthetics orthotics services with particular focus on specialized services that are not available at the secondary level, i.e. upper limb prostheses orthoses, spinal orthoses and specialized adaptation of mobility aids.

Apart from service delivery, the tertiary level shall give back up support to the secondary level as well engaged in education and training program of prosthetics orthotics professionals and research activities.

3.2.2 PREMISES

The size of service facilities will depend on the demographic service users of the given area and must adapt to the economic reality and future perspectives. Facilities are directly connected with the technology and volume of services, standardized technology makes the service cost-effective and stimulates networking among service providers. Even though, it is a difficult practice to set facilities standard the following can serve as a minimum requirement.

• Building

Since the service is going to be organized within a hospital setup it does not require a separate administration unit. However, an office for P&O service director or coordinator, staff room and storage room to store P&O materials and supplies are essential.

The patient/client area comprises of a reception, waiting area, toilets, cloth changing rooms, examination rooms, gait training rooms and casting fitting rooms, with shower that are gender sensitive.

The prosthetics orthotics workshop area comprises cast modification, plastic lamination & thermoplastic, machine room, orthopaedic footwear and assembly room.

Room concept

Unit	Rooms Name	Size	Quantity	Remarks
1. Administration	1.1 P&O service director office	12 m2	1	
	1.2 Office assistant & archive	9 m2	1	
	1.3 Product display room	12 m2	1	
	1.4 Storage room	40m2	1	
2. Patient area	2.1 Reception, casher &waiting room	30 m2	1	
	2.2 Toilets	7.5 m2	3	Wheelchair accessible
	2.3 Changing rooms	15 m2	2	1 female &1male
	2.4 Examination rooms	8 m2	2	1 female &1male
	2.5 Casting/ measurement, fitting & shower rooms	18 m2	2	• 1 female &1male, • ceramic sink with plaster sedimentation tank and wide drainage system, • Ceramic wall
	2.6 Gait training rooms	27 m2	2	1 female &1male

3. Staff area	3.1 Meeting/rest room	20 m2	1	
	3.2 Dressing room	6m2	2	1 female &1male
	3.3 Toilet & shower	6m2	2	1 female &1male
4. Prosthetics orthotics workshop	4. Cast Modification room	18m2	1	• Requires 3phase electrical power supply.
	4.2 Plastic lamination and thermoplastic	20 m2		• Requires 3phase electrical power supply. • Needs to be well ventilated
	4.3 Machine room	45 m2		• Requires 3phase electrical power supply. • Needs to be well ventilated • There will be noise and dust.
	4.4 Orthopedic foot wear	20 m2		Requires 3phase electrical power supply.
	4.5 Assembly room	30m2	1	• Requires 3phase electrical power supply.

3.2.3 EQUIPMENT

The prosthetics orthotics clinical services and workshop equipment type and quantity are depending on the planned service capacity, the technology and working space. These three elements are interrelated and the main governing factor is the service capacity that is determined by the amount of budget allocated to develop the prosthetics orthotics service, this situation makes standardization of equipment requirement very difficult and exhaustive. However, it is possible to list out basic and most common equipments based on current practice, these are:

Category	No.	Description of Equipments	Proposed Quantity
Examination			
	1.	Examination table	4
	2.	Visitors chair	4
	3.	Swivel stool	2
	4.	X-Ray viewer	2
	5.	Podometer	2
	6.	Wheelchair	1
	7.	Standing frame	3
	8.	Pair of crutches	3
	9.	Measuring tape	4
	10.	Body caliper	4
	11.	Goniometers	4
	12.	Coat hanger	2
	13.	Trash container	2
Changing			
	14.	Bench	4
	15.	Lockers (each 4 compartments)	4
	16.	Coat hanger	2
	17.	Trash container	2
Casting, measuring & fitting			
	18.	Examination table	2
	19.	Body segment mirror	2
	20.	Lockable storage cabinet	2
	21.	Trans tibial cast taking chair	2
	22.	Prosthetics casting apparatus with brims	2
	23.	Spinal casting apparatus	1
	24.	Table water proof	2
	25.	Shelve	2
	26.	Visitors chair	4
	27.	Swivel stool	2
	28.	Plaster bandage trolley	2
	29.	Trash container	2
	30.	Measuring tape	4

	31.	Hip level guide	2
	32.	Foot blocks	2
	33.	Contour tracer	2
	34.	Plaster cast cutter	2
	35.	Plaster cast scissors	2
Gait Training			
	36.	Parallel bar	2
	37.	Ramp and stairs	2
	38.	Body caliper	4
	39.	Bench	4
	40.	Swivel stool	2
	41.	Waking frame	4
	42.	Pair of adjustable elbow crutches	4
	43.	Pair of adjustable axillary crutches	4
	44.	Storage cabinet	4
	45.	Table	2
	46.	Obstacle blocks	2
	47.	Unstable bridge	2
	48.	Wobbling board	2
	49.	Trash container	4
Cast modification			
	50.	Casting table with vice	2
	51.	Plaster silo	1
	52.	Plastic basin	4
	53.	Shelve	2
	54.	Tool board	2
	55.	Side table	2
	56.	Stainless steel bowl	4
	57.	Plaster mixing rubber bowl	6
	58.	Plaster knife	4
	59.	Draw knife	2
	60.	Electric cast cutter	2
	61.	Measuring tap	4
	62.	Surform	9
	63.	Hammer	3
	64.	Rubber mallet	2

	65.	Pneumatic chisel	2
	66.	Wire brush	2
	67.	Plaster spatula	4
	68.	Plaster stirrer	4
	69.	Heavy-duty trash bin	2
Plastic processing			
	70.	Electrical oven	1
	71.	Vacuum pump with accessories	1
	72.	Electrical jig saw	2
	73.	Hot air gun	2
	74.	Work bench	1
	75.	Deep-drawing tools set	1
	76.	Plate shelf	1
	77.	Resin moulding work bench with exhaust system and vice	1
	78.	Bench top cabinet	1
	79.	Vacuum tank and regulating system	1
	80.	Safety storage cabinet for flammable resin products	1
	81.	Electrical cast cutter	1
	82.	Sewing machine	1
	83.	Sealing iron	2
	84.	Cord less drill	1
	85.	Lamination tool kit	1
	86.	Weight scale	1
	87.	Trash container	2
Machine operation			
	88.	Socket router with accessories	2
	89.	Belt sander	1
	90.	Floor drilling machine with accessories	1
	91.	Dust extractor system	1
	92.	Air compressor with accessories	1
	93.	Welding machine with accessories	1
	93.	Welding table with exhaust system	1
	94.	Floor grinding machine	1
	95.	Metal shears	1
	96.	Anvil	2

	97.	Tools cabinet	1
	98.	Table	1
Orthopedic footwear			
	99.	Shoe makers workbench	1
	100..	Swivel stool	3
	101.	Double stitch sewing machine	1
	102.	Sole sewing machine with accessories	1
	103.	Sizing table	1
	104.	Speed press with accessories	1
	105.	Trimming and finishing machine with accessories	1
	106	Skiving machine	1
	107.	Storage cabinets	3
	108.	Revolving eyelet punch	1
	109.	Cobbler stand	1
	110.	Set of shoemakers tool	3
	111.	Trash container	2
Assembly			
	112.	Work bench with tool board	4
	113.	Swivel stool	6
	114.	Storage cabinet	3
	115.	Shelving unit	2
	116.	Alignment apparatus	1
	117.	Anvil	2
	118.	Set of orthopaedic technique tools	4
	119.	Electrical hand drill	2
	120.	Electrical jig saw	2
	121.	Hot air gun	2
	122.	Electrical angle grinder	2
	123.	Electrical cast cutter	2
	124.	Bench drill press	1
	125.	Set of scissors	2
	126.	Set of iron benders	4
	127.	Contouring instrument	2
	128.	Riveting bar	2
	129.	Set of tap and dies	2

	130.	Set of file	4
	131.	Vice grip pliers	4
	132.	Set of hole punch	2
	133.	Revolving eyelet punch	1
	134.	Set of different types of drills	5
	135.	Set of socket spanner	1
	136.	Set of ring spanners	1
	137.	Lead block	3
	138.	Set of locksmith hammer	2
	139.	Set of chasing hammer	2
	140.	Rubber mallet	4
	141.	Stapler gun	2
	142.	Spray gun	2
	143.	Set of hand saw	8
	144.	Letter and figure punch	2
	145.	Set of safety tools	10

CONSUMABLE/RENEWABLE

1.	P.O.P
2.	Cotton
3.	Bandages
4.	Welding lead
5.	Leather
6.	Poly propylene
7.	Rubber tip

SECTION 4. IMPLEMENTATION CHECKLIST

The following table can be used as a tool to record whether the Operational Standards outlined above have been implemented by the hospital prosthetics and orthotics unit.

Table 1. Check list

No	Standard	Verification criteria	Met	Unmet	Remark
1	The hospital need to have P&O unit led by a qualified P&O technologist.	-There is a designated area in the hospital for P&O unit -Licensed and qualified P&O unit head has been recruited.			
2	The hospital's P&O unit should be staffed with qualified personnel equipped with necessary resources – standard machinery, equipment, workshop, fitting and gait training space.	-Relevant equipment and resources are available in the unit - There is enough space for gait training -There is separate room for workshop -There is separate room for fitting - p&o professional has been recruited and employed			
3	The hospital should have a written standard operational procedure to provide P &O services	- See the prepared SOP - Service guideline in the unit			
4	The hospital should involve P&O experts to contribute in supply chain management	- See the document on the need based assessment - See the annual budget procurement plan			

5	The Hospital should establish management structure and job descriptions that detail the roles and responsibilities of each professional within the unit, including plan and reporting relationships.	- Structure of P&O work flow diagram -All staff members of the department/unit have received job description defining their role and responsibility -There is established inter & intra reporting mechanism -monthly, quarter and annual plan and report prepared			
6	The hospital need to have a P&O unit with accessible infrastructure/service facility with adequate lighting and ventilation, gender based adapted washroom (toilet, hand wash, shower) & multimedia facilities in place.	- There is ramp with handrails for walk way to the P&O department/lift that fit to wheelchairs - Adapted washroom in place - See the P&O unit cleanliness, safety, barrier free and adequate lighting and ventilation, -multimedia facilities in place			
7	The hospital has established P&O patients' appointment and hospitality management systems.	- See appointment log book - See hospitality management system			

8	The hospital need to form a multidisciplinary team to conduct regular assessment, planning, implementation and evaluation of intervention processes and results.	- Established intra rehabilitation multidisciplinary team approach (planned and schedule program) - Established integrated team approach with other medical personnel's (programmed, scheduled and assigned professionals for the program)			
9	The Hospital need to develop guidelines for verbal and written communication to facilitate continuum of services to maximize the functionality of service users by engaging different disciplines.	- Guideline for verbal & written communication			
10	The Hospital need to establish strong referral linkage with inter/intra departments of the hospital and other services outside the hospital.	- See the unit linkage and intra-referral protocol - See service MOU agreement between the hospital and other stakeholders			
11	The Hospital should have necessary health and safety equipment in the unit.	- see list of safety commodities and supplies used in the P&O unit - See the availability of safety equipments in the P&O unit. - Compliance of the professionals for health and safety equipment.			

4.1 INDICATORS

The prosthetic and orthotics service maybe monitored using the following indicators to assess the effectiveness and the implementation of the service.

No	Indicator	Formula	Frequency
4.	Number of patient seen at prosthetic and orthotics service unit	Total number of patients seen in a given period	Monthly
5.	Number of patients received prosthetic service.	No. of prosthetic device given *100/ Total number of patients seen	Quarterly
6.	Number of patients received orthotics service	No. of orthotics device given*100/ Total number of patients seen	Quarterly
7.	Number of patients received mobility aids	No. of mobility aids device*100/ Total number of patients seen	Quarterly
8.	Percent of clients satisfied by Prosthetics Service	Likert scale(patients satisfied score more than 80%/Total no. of patients used the prosthetics service *100	Quarterly


Physical
Rehabilitation
Services

ANNEX:
WORLD HEALTH ORGANIZATION OPERATIONAL DEFINITION OF TERMS RELATED TO REHABILITATION

The following matrix is intended to provide a common understanding of the different dimensions of rehabilitation. The definitions that follow have been sourced from a range of WHO documents and other internationally recognized sources. The matrix and associated lexicon are works in progress that will evolve during the process of guideline development.

Dimension	Variables
Health condition	• Disorder • Disease • Injury
Health condition/ impairment by pattern of progression	• Temporary • Intermittent • Progressive • Regressive • Stable • Deterioration (e.g. due to ageing, comorbidity etc)
Types of impairment	• Sensory • Physical • Cognitive • Mental • Intellectual • Behavioral • Communication • Cardio-respiratory
Rehabilitation objectives	• Prevention of the loss of function • Slowing the rate of loss of function • Improvement or restoration of function • Compensation for lost function • Maintenance of current function
Rehabilitation outcomes	• Decreased length of hospital stay • Increased independence • Decreased burden of care • Return to role/occupation that is age, gender and context relevant (e.g. home care, school, work)
Levels of health care	• Primary (local) • Secondary (district /regional) • Tertiary (national)

Rehabilitation settings	• Hospital settings • Other institutional settings • Community settings
Phases of health care	• Acute care • Sub-acute • Post-acute • Long term
Models of service delivery	• In-patient • Out-patient (includes day rehabilitation) • Outreach (includes in-reach, mobile and telerehabilitation) • Home-based
Rehabilitation measures	• Rehabilitation medicine • Therapy • Assistive technology
Complexity of rehabilitation services	• Low cost / high volume services • High cost / low volume services
Priority	• Essential • Important • Desirable • Not required
Resources	• Human • Infrastructure • Non-durable equipment and supplies • Durable rehabilitation equipment and technologies • Financial
Rehabilitation workforce	• Rehabilitation personnel • Other clinical personnel • Non-clinical personnel e.g. managerial and administrative personnel • Users (including individuals/family members/care givers etc)
Income setting	• Low income countries • Lower middle income countries • Upper middle income countries • High income countries
Geographical setting	• Urban • Rural • Remote
Financing	• State-funded (Public) • Private for profit • Private not for profit, including non-government organizations, charitable based organizations • User-funded • International assistance

Data	• Population-level • System-level (e.g. service network) • Service-level (e.g. individual provider) • User-level
Stakeholders	• Policy-makers / planners (State and non-state actors) • Administrators/ managers • Clinicians • Users (including individuals/family members/care givers etc) • Community members • Donors

Rehabilitation Lexicon

HEALTH SYSTEMS STRENGTHENING TERMINOLOGY	
Health system	- A health system consists of all the organizations, institutions, resources and people whose primary purpose is to improve health. The key components of a well-functioning health system include:
	- Leadership and governance: Leadership and governance involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design and accountability.
	- Service delivery: Service delivery can be defined as the way inputs are combined to allow the delivery of a series of interventions or health actions.
	- Human resources: A health workforce works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances (i.e. there are sufficient staff; fairly distributed; they are competent, responsive and productive).
	- Essential medical products and technologies: Equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use.
	- Health information systems: Ensure the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status.
	- Health financing: Raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient.

Right to health	- The right to health contains four elements:
	- Availability: Functioning public health and health care facilities, goods and services, as well as programmes in sufficient quantity.
	- Accessibility: Health facilities, goods and services accessible to everyone, within the jurisdiction of the State party. Accessibility has four overlapping dimensions: non-discrimination; physical accessibility; economical accessibility (affordability); and information accessibility.
	- Acceptability: All health facilities, goods and services must be respectful of medical ethics and culturally appropriate as well as sensitive to gender and life-cycle requirements.
	- Quality: Health facilities, goods and services must be scientifically and medically appropriate and of good quality.

INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH	
ICF	The classification that provides a unified and standard language and framework for the description of health and health-related states. The ICF is part of the "family" of classifications developed by WHO.
Heath condition	An umbrella term for disease (acute or chronic), disorder, injury or trauma. A health condition may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly or genetic predisposition.
Functioning	An umbrella term for body functions, body structures, activities and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).
Impairment	Loss of abnormality in body structure or physiological function (including mental functions), where abnormality means significant variation from established statistical norms.
Activity limitations	Difficulties an individual may have in executing activities (tasks or actions).
Participation restrictions	Problems a person may experience in involvement in life situations.
Disability	An umbrella term for impairments, activity limitations, and participation restrictions denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

Environmental factors	Refers to the physical, social, and attitudinal environment in which people live and conduct their lives. For example products and technology; the natural environment; support and relationships; attitudes; and services, systems and policies.
Personal factors	Factors that relate to the individual - for example age, gender, social status, and life experiences.

REHABILITATION TERMINOLOGY	
Rehabilitation	A set of measures that assists individuals who experience or are likely to experience disability to achieve and maintain optimal functioning in interaction with their environment. A distinction in sometimes made with habilitation, which aims to help those who acquire disabilities congenitally or early in life to develop maximal functioning and rehabilitation, where those who have experienced a loss in function are assisted to regain maximal functioning.
Health-related rehabilitation	A set of healthcare measures that assist individuals who experience or are likely to experience disability to achieve and maintain optimal functioning in interaction with their environment.
The rehabilitation process	Rehabilitation involves the identification of a person's problems and needs; relating the problems to relevant factors of the person and the environment; defining rehabilitation goals; planning and implementing measures; and assessing the effects.
Rehabilitation objectives	- Rehabilitation objectives include:
	- Prevention of the loss of function.
	- Slowing the rate of loss of function.
	- Improvement or restoration of function.
	- Compensation for loss of function.
	- Maintenance of current function.
Rehabilitation outcomes	Rehabilitation outcomes are the benefits and changes in the functioning of an individual over time that are attributable to a single measure or set of measures. They may include:
	- Fewer hospital admissions.
	- Increased independence.
	- Decreased burden of care.
	- Return to role/occupation that is age, gender and context relevant (eg home care, school, work).
	- Improved quality of life.

SERVICE DELIVERY TERMINOLOGY	
Levels of care	- Primary care is usually the first point of contact for patients within the health care system, and provides a link to more specialized care. Primary care is usually based at the local level, and provided in a range of settings – typically community based settings.
	- Secondary care is health care services provided by medical specialists and other health professionals. Secondary care is usually based at the district/regional level, and provided in a range of settings – typically hospital and institutional settings.
	- Tertiary care: Specialized consultative health care. Tertiary care is usually based at the national level, and provided in hospital settings generally on an inpatient basis.
Settings	- Settings refer to the places/facilities where rehabilitation services are delivered. Rehabilitation settings include:
	- Hospital / Centers settings: For example, general hospitals, rehabilitation wards within general hospitals, specialized rehabilitation hospitals and centers.
	- Other Institutional settings: For example, nursing homes, respite care centres, hospices, and military residential settings.
	Community based settings: For example single or multiprofessional practices (office or clinic), homes, schools, and workplaces.
Phases of care	Phases of care indicate the stage of the health condition: - Acute: short-term treatment for a health condition.
	- Sub-acute: comprehensive inpatient care following an acute health condition or exacerbation of a health conditions. It is of moderate duration.
	- Post-acute: care designed to improve the transition from hospital to the community.
	- Long term: care which is provided over a long duration to meet both the medical and non-medical needs of people with a chronic health condition or disability.
Rehabilitation services	Health services are the most visible functions of any health system, both to users and the general public. Rehabilitation services (a subset of health services) include all those measures that relate to preventing the loss of function; slowing the rate of loss of function; improving or restoring function; compensating for lost function; and maintaining current function.
Rehabilitation personnel competencies	Competencies are the skills, knowledge, behaviors and attitudes that are instrumental in the delivery of desired results, and consequently, of job performance.

Rehabilitation measures	An activity or set of activities that can be broadly divided into three categories: i) rehabilitation medicine; ii) therapy; and iii) assistive technology. For example, therapy measures may include: training, education; exercises; support and counseling; modifications to the environment; and provision of resources and assistive technology.
Models of service delivery	Models of service delivery are the ways in which rehabilitation services/measures can be delivered and include: - Inpatient
	- Outpatient: includes day rehabilitation.
	- Outreach:includes in-reach, mobile and tele rehabilitation
	- Home-based

OTHER RELEVANT TERMINOLOGY	
Priority levels	- Essential:Indicates items should always be available at the stated level. These items represent the 'lowest common denominator' that should be provided in all settings.
	- Important: Indicates items that increase the probability of successful rehabilitation outcomes, but require greater investment and thus may not be affordable in low-resource settings. Such items may, however, be designated essential in settings with adequate resource capacity.
	- Desirable: Indicates items that are potentially needed, and thus will be dependent upon priorities and available resources.
	- Not required: Indicates items that are not considered to be necessary to provide rehabilitation services at the given level of the health care system.

St. Paul's Hospital Millennium Medical College Printing Press