



**NATIONAL
AYUSH
MISSION
KERALA**



NATIONAL AYUSH MISSION KERALA

STANDARD OPERATING PROCEDURE

**NATIONAL PROGRAM FOR
PREVENTION AND MANAGEMENT OF
OSTEOARTHRITIS & OTHER
MUSCULOSKELETAL DISORDERS**

National Program for Prevention and Management of Osteoarthritis & other Musculoskeletal Disorders

Purpose

The purpose of this Standard Operating Procedure (SOP) is to establish a consistent protocol for potential program implementers to effectively execute the National Program for Prevention and Management of Osteoarthritis & other Musculoskeletal Disorders and monitor its activities uniformly across the State of Kerala

Introduction

Musculoskeletal disorders (MSDs) including osteoarthritis are major causes of morbidity and the common cause of disability worldwide, measured by years lived with disability (YLDs). Degenerative changes in the joints such as knee, hip and vertebrae are the commonest cause for restricted movement or immobility, particularly in aged population. MSDs represents a burden on society in both direct costs to the healthcare system and indirect costs through loss of work and productivity. The global prevalence of MSDs ranges from 14% to as high as 42%. In India, epidemiological studies indicate the community base prevalence of about 20% and occupation- specific prevalence found to be as high as 90% in various studies. The National Program for Prevention and Management of Musculoskeletal Disorders (NPD) is a new initiative launched by the Ministry of AYUSH in India to address the growing burden of MSDs in the country. The program aims to provide preventive and curative interventions for MSDs through AYUSH systems of medicine. So, in present scenario of Kerala, a program for prevention and management of Musculoskeletal disorders through an integrative approach of AYUSH interventions is a timely need. The NPD is a comprehensive program that covers a range of interventions, including preventive measures, clinical management, diet and lifestyle modification, counselling, and physiotherapy. The program is targeted at the population above middle age. It is expected to play a major role in reducing the burden of MSDs in Kerala in the future.

Objectives

- Early identification and awareness among the general public about musculoskeletal disorders.
- Identification and management of the population at risk for musculoskeletal disorders including lifestyle diseases.
- Identification and management of musculoskeletal disorders in factory workers and labour camps.

- Identification, management, and improvement of the quality of life of the old age population suffering from musculoskeletal disorders.

Target Group

Includes individuals above middle age, high-risk groups such as factory workers and laborers, as well as the elderly residing in old age homes

Implementation strategy

- State and District Conveners should be appointed to oversee the operation of clinics and coordinate with government entities, ensuring smooth implementation of the program at both state and district levels.
- Project Medical Officers, physiotherapists, and multipurpose workers should be recruited and provided with comprehensive training to effectively deliver medical care, physiotherapy, and administrative support in line with the program's objectives.
- Awareness programs targeting the general public, factories, labor camps, and rehabilitation centers should be conducted regularly, emphasizing the prevention of musculoskeletal disorders (MSDs) through education and lifestyle modifications.
- Screening programs should be implemented at AYUSH Health and Wellness Centers, dispensaries, and peripheral hospitals to categorize the population into high, medium, and low-risk groups for MSDs, facilitating targeted interventions.
- Specialized screening programs should be organized for high-risk groups such as MGNREG workers and elderly populations in old age homes and senior citizen groups to identify and address musculoskeletal issues promptly.
- Clinical management, including the prescription of AYUSH medicines, dietary recommendations, and lifestyle modifications, should be provided at designated centers, both on an outpatient and inpatient basis, ensuring comprehensive care for MSD patients.
- Counseling services should be offered to musculoskeletal patients as needed, addressing psychological and emotional aspects of their conditions and providing support throughout their treatment journey.
- Physiotherapy sessions should be delivered to patients to improve their range of motion, strength, and flexibility, tailored to their individual needs and treatment plans.
- Infrastructure and equipment requirements, including consultation and treatment rooms, diagnostic facilities, counseling rooms, exercise rooms, pharmacies, waiting areas, administrative offices, and medical equipment, should be ensured to support the delivery of quality healthcare services.

- Various registers, including OP register, patient records, prescription register, outreach activity register, follow-up register, and stock register, should be diligently maintained to track patient information, program activities, and resource utilization.
- Monthly reports should be submitted on patient statistics, outreach activities, impacts, improvements, and physiotherapy reports, providing valuable insights for program evaluation and continuous improvement.
- Annexure documents, including consent forms, case sheet formats, observation, and follow-up records, referral registers, and awareness session registers, should be provided as necessary to support program activities and documentation.

Training and capacity building

- ❖ State and District Level Training: Conduct comprehensive training sessions at both state and district levels for AYUSH medical officers, physiotherapists, multi-purpose workers, and frontline workers involved in the programme. These sessions will focus on providing in-depth knowledge about musculoskeletal disorders, preventive measures, clinical management techniques, and counseling skills. Emphasis will be placed on ensuring a thorough understanding of program objectives, protocols, and procedures to effectively deliver services to the target population.
- ❖ Facility Level Hands-On Trainings: Organize hands-on training sessions at facility levels to provide onsite staff with practical skills and experience necessary for implementing the programme. These trainings will be designed to the specific roles and responsibilities of staff members. Participants will receive guidance on using medical equipment, conducting screenings, administering treatments, maintaining patient records, and ensuring a patient-centric approach in healthcare delivery.
- ❖ Annual Refresh Trainings: Implement annual refresh trainings to sustain knowledge and upgrade the skills of staff members. These trainings will serve as opportunities for continuous professional development, allowing participants to stay updated on the latest developments in musculoskeletal health management, AYUSH interventions, and best practices in patient care. Refresh trainings will also provide a platform for sharing experiences, addressing challenges, and refining techniques to enhance the effectiveness of program implementation.

General Instructions

- Compliance with relevant healthcare regulations and standards should be ensured at all times, maintaining the integrity and quality of program implementation.

- Cleanliness, safety, patient privacy, and adherence to ethical and professional standards should be maintained rigorously across all program facilities and activities.
- Adhere to Ayurvedic treatment principles.
- Continuously update knowledge and skills by attending all training and orientation sessions.
- Ensure patient safety and follow emergency procedures.
- Conduct regular team meetings for collaboration and problem-solving.
- Promote a positive image of Ayurveda and the project within the community.

Organization structure

Project Monitoring Committee (State Level)

- Chairman-State Mission Director
- Convenor- State Programme Manager (Homoeopathy)
- Members- DMO, DPM

Project Monitoring Committee (District Level)

- Chairman- DMO
- Convenor-DPM
- Members-Head of the Institution
- Project Medical Officer

Project Team

- Project Convenor
- Project Medical Officer (NAM)
- Supporting Staff

State Convener: The State Convener is responsible for overseeing the operation of the programme in the state. This includes developing and implementing policies and procedures, coordinating with the State government, and providing support to the District Project Coordinators.

State Project Coordinator: The State Project Coordinator is responsible for assisting the State Convener in managing the programme. This includes developing and implementing training programs, collecting and analyzing data, and preparing reports.

District Project Coordinator: The District Project Coordinator is responsible for overseeing the operation of the programme in the district. This includes developing and implementing local policies and procedures and providing support to the NAM Medical Officers.

Performance Indicators

- Number of awareness programs conducted and their reach among the general public.
- Percentage of population screened for musculoskeletal disorders, categorized by risk level.
- Effectiveness of screening programs among high-risk groups such as factory workers, laborers, and the elderly.
- Number of musculoskeletal disorder cases identified and managed through the program.
- Percentage of patients adopting recommended diet and lifestyle modifications.
- Outpatient and inpatient treatment rates, including the number of consultations and admissions.
- Success rates of physiotherapy sessions in improving patients' range of motion, strength, and flexibility.
- Patient satisfaction levels with counseling sessions.
- Utilization rates of infrastructure and equipment in the clinics.
- Timeliness and accuracy of maintaining registers and monthly reports.
- Impact assessment on reducing the burden of musculoskeletal disorders in Kerala over time.
- Feedback from stakeholders including patients, healthcare professionals, and government authorities regarding the effectiveness and efficiency of the program.

Program Rollout:

- a) Phase 1 (Month1-6): Pilot in selected districts
- b) Phase 2 (Month 6-12): Expand to additional districts.
- c) Phase 3 (Months 12 onwards): Statewide rollout.

Infrastructure and equipment required

- Consultation rooms: These rooms would be used by the doctors and other healthcare professionals for consultation.
- Treatment rooms: These rooms would be used for providing various treatments for MSDs, such as physiotherapy.
- Diagnostic facilities: These facilities would be used to diagnose MSDs and to track the progress of treatment.
- Examination rooms: Rooms where allergists can perform physical examinations and other procedures.
- Counselling rooms: These rooms would be used to provide counselling to patients on diet, lifestyle, and other aspects of MSD management.

- Exercise rooms: These rooms would be used for patients to perform exercises under the supervision of a qualified physiotherapist or yoga instructor.
- Pharmacy: The hospital's general pharmacy or Geriatric pharmacy would dispense essential homoeopathic medicines and other medications to patients.
- Waiting area: The waiting room would provide a comfortable space for patients to wait for their appointments.
- Administrative offices: These offices would be used for the administrative functions of the facility.
- Front office: A dedicated registration facility to greet and assist patients and their families.
- Case records facility: A system for maintaining and organizing patient records.

Equipment list

- Stethoscopes
- Blood Pressure Monitors
- Thermometers
- Pulse Oximeters
- Weighing machine
- Examination table
- Vitals monitor
- Wheelchairs
- Patient trolley
- Medicine trolley
- File rack
- Medicine rack
- Token vending machine
- Files
- Case sheet
- Brochures
- Banners
- Laptops
- Printer and scanner
- Braces and belts
- Goniometer

Physiotherapy equipment: This includes things like exercise mats, weights, balls, and other equipment used for physical therapy. IFT Machine, Stimulator, Traction Machine & Traction Table, IR Lamps, Ultrasound Machine, Shoulder Wheel, Weight Cuff, Cold Pack, Heating Pad, Finger Grip Exerciser, Cotton Towel, Exercise Balls, Adhesive Paper Tapes, Examination Table, Ultrasound Gels, Cotton Roils, Velcro Strap, Tissue Paper, Finger Ladder, Multi shape Peg Board, Examination Gloves, Scissors, Tens, Diathermy unit, Combination therapy unit etc.

അറിവോടു കൂടിയ സമ്മതപത്രം

പദ്ധതി:

മുഖ്യ ചികിത്സകൻ ഈ ചികിത്സയെക്കുറിച്ചുള്ള / പദ്ധതിയെ കുറിച്ചുള്ള കാര്യങ്ങൾ വിശദമായി വിവരിച്ചു തന്നിട്ടുള്ളതും കാര്യങ്ങൾ എനിക്ക് ബോധ്യപ്പെട്ടിട്ടുള്ളതുമാണ്.

എന്റെ രോഗവിവരത്തിന്റെ അടിസ്ഥാനത്തിൽ ശേഖരിച്ച വിവരങ്ങൾ കുറിപ്പുകൾ എന്നിവ പരിശോധിക്കുവാനും ഹോമിയോപ്പതി മരുന്നുകൾ ഉപയോഗിച്ചുള്ള ചികിത്സ പഠനം എന്നിവ നടത്തുവാനും ഉത്തരവാദിപ്പെട്ടവർക്ക് ഞാൻ എന്റെ അനുവാദവും പൂർണ്ണ സമ്മതവും നൽകുന്നു

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MUSCULOSKELETAL DISORDER CLINIC

OP.NO:

SP.OP.NO:

NAME:

AGE/SEX:

ADDRESS:

.....
.....
.....
.....

PHONE NUMBER:

CASE RECORD

Reg no:

Date:

Attending doctor:

Address and phone number:

Name:

Age:

Sex:

Monthly salary:

Occupation:

Name of the guardian:

Presenting complaints:

	Location	Time & type of onset	Swelling	Sensation	Comments	Modalities
Pain						
Stiffness						
Numbness						
Swelling						
Nodosities						
Crackling						
Joint Locking						
Cropilation						
Sprain						
Injury						
Dislocation						
Exostosis						

History of presenting complaints:**Past history:**

Injuries	Vascular heart disease	Road traffic accident

Family history:

OA	RA	Gout	Psoriasis	Spondylopathies	Cardiac complaints	Others

Treatment history:

H/O treatment of injuries/Deformities/ Use of prosthetics/surgical reasons

Investigation history:

Personal history:

Milestones of development:

Dwelling:

Habits:

Occupation:

Physical general:

A. Functional

Appetite:

Desire:

Aversion:

Thirst:

Sleep:

Dreams:

B. Elimination

Stool:

Urine:

Sweat:

C. Response to

Fanning:

Geographical changes:

Covering:

Food:

Climatic changes:

Temperature:

Meteorological:

Moon phases / Sun:

Mental generals/personality trait:

Physical examination:

General examination:

Pulse:

B.P:

Temperature:

Resp. rate:

Pallor:

Cyanosis:

Icterus:

Oedema:

SpO:

Clubbing:

Lymphadenopathy:

Gait:

Posture:

Mobility:

Deformity:

Independence:

Fraction:

Examination of system involved

Examination of bones:

Alteration in sleeping in shape or outline:

Bowing of long bones:

Epiphyseal enlargement:

Osteochondral enlargement:

Localized swelling:

Examination of Joints

Joints	Tic if present	Findings
Finger		
Wrist		
Elbow		
Shoulder		
Neck and upper back		
Lower back		
Hip		
Knee		
Ankle		
Feet		
Spine		
Popliteal regions		
Arches of the feet		

Extra-articular features

Subcutaneous nodules (gout/ra/sle):

Cutaneous vasculitis lesions (ra/sle/polyarthritis nodosa):

Lymphadenopathy (inflammation/ malignancies):

Local edema:

Tendon sheath effusion:

Enlarged bursa:

Region affected	Right	Left
Temporo mandibular		
Skull bone		
Jaw bone		
Muscles of neck		
Thoracic spine		
Lumbar spine		
Coccyx		
Scapular region		
Shoulder		
Intercostal area		
Costochondral joints		
elbow		
Wrist		
Interphalangeal joint		
Soft tissue of arms		
Hip		
Sacroiliac joints		
Knee		
Ankle		
Joint of foot bones		
Soft tissues		
Others		

Investigations:

	Range	Remarks
ESR		
CRP		
RA Factor		
ANA		
Uric acid		
Anti CCP		

Radiology

X-Ray

CT

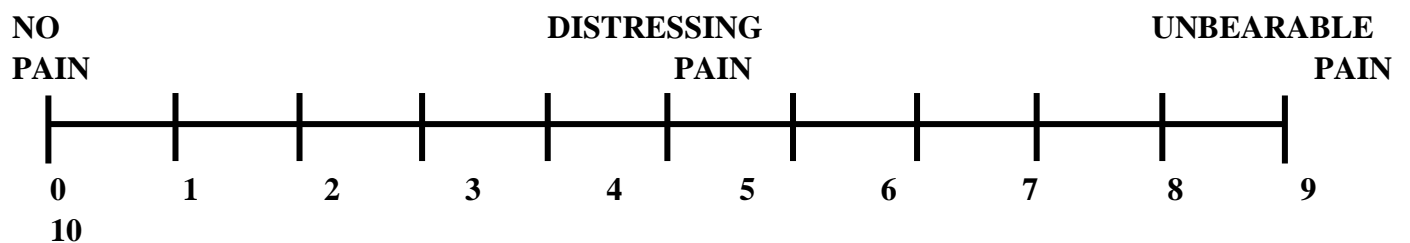
MRT

DEXA (Bone Mineral Density)

Review of symptoms/Investigations

1. Pain scale (VAS)

Choose a number from 1 to 10 that best describes your pain.



WOMAC scale

RATE YOUR PAIN WHEN...	NONE (0)	SLIGHT (1)	MODERATE (2)	SEVERE (3)	EXTREME (4)
Walking			2	3	4
Climbing stairs					
Sleeping at night					
Resting					
Standing					
RATE YOUR STIFFNESS IN THE...	NONE (0)	SLIGHT (1)	MODERATE (2)	SEVERE (3)	EXTREME (4)
Morning					
Evening					
RATE YOUR DIFFICULTY WHEN...	NONE (0)	SLIGHT (1)	MODERATE (2)	SEVERE (3)	EXTREME (4)
Descending stairs					
Ascending stairs					
Rising from sitting					
Standing					
Bending to floor					
Walking on even floor					
Getting in/out of car					
Going shopping					
Putting on socks					
Rising from bed					
Taking off socks					
Lying in bed					
Getting in/out of bath					
Sitting					
Getting on/off toilet					
Doing light domestic duties (cooking, dusting)					
Doing heavy domestic duties (moving furniture)					

Patient signature	
Reviewed physician	Name: Sign:

Total score:

Goniometer

VAS Score

Range of movement

Activity

Sleep

Anxiety

Final diagnosis:

Evaluation of symptoms:

Origin and distribution of symptoms

Bones	
Cartilages	
Joints	
Muscles	
Ligaments	
Tendons	
Bursa	
Membranes	
Referred pain.	

Miasmatic diagnosis:

Repertorization:

Rubrics:

Reportorial Result:

Medicinal management:

OBSERVATION & FOLLOW UP:

SP OP No:

DATE	SYMPTOMS	OBSERVATION	MEDICINE	REVIEW

OP REGISTER

SL NO	OP NO	NAME	AGE /SEX	ADDRESS & PHONE NO:	F/U

PRESCRIPTION REGISTER

SL NO	OP NO	NAME	AGE/ SEX	PROVISIONAL DIAGNOSIS	PRESCRIBED MEDICINE	IMPROVED/ REFERRAL

REFERRAL REGISTER

SL NO	OP NO	NAME	AGE & SEX	PROVISIONAL DIAGNOSIS	REFERRED TO	REASON FOR REFERRAL

OUTREACH ACTIVITIES- AWARENESS SESSION

SL NO	TOPIC	LOCATION	FACULTY	NUMBER OF BENEFICIARIES

MEDICAL CAMPS REGISTER

SL NO	NAME	AGE/SEX	PROVISIONAL DIAGNOSIS	PHONE NO:

MONTHLY REPORTING FORMAT

Diagnosis		Male			Female			Others			Total
		<17	17-60	>60	<17	17-60	>60	<17	17-60	>60	
	New										
	Old										
	New										
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