

## **PSG IMS&R HOSPITALS**

### **DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION**

This specialty branch deals with the process of improving the functional abilities of patients with physical disabilities, injuries etc. The birth of PSG Hospitals' Department of Physical Medicine and Rehabilitation can be traced to a notification issued by the Medical Council of India.

Through this medical education related amendment, notified in 2008, the MCI introduced postings in the Department of Physical Medicine and Rehabilitation (PMR) for medical interns for a period of seven days. In 2009 PSG Hospitals established the Department of PMR. The physiotherapy services were then merged with the functionalities of the PMR Department.

The department is also the teaching affiliate of the PSG Institute of Medical Sciences & Research and the PSG College of Physiotherapy, thereby ensuring skill component training for budding doctors and physiotherapists. Within a short span of time, the department has started offering a slew of vital services including pain & rehabilitation clinic, inpatient care, physiotherapy, artificial limb centre, and counseling about physical activities needed for diabetic patients.

Four specialty clinics have also been set up including post trauma rehabilitation and diabetic foot care. The diabetic foot care clinic, started in 2010, follows the guidelines of American Diabetes Association, a US-based organization spearheading dissemination of information regarding the disease for the benefit of diabetics. Accordingly, all the diabetics admitted to PSG Hospitals undergo foot evaluation. Total contact cast application is also done to offload ulcer and enhance wound healing. The department also follows the protocol approach with the primary aim of focusing on pain management in coordination with other departments and specialty units of the hospital.

The department has also plans to offer an MD course in physical medicine and rehabilitation. The establishment of a stroke rehabilitation centre and preventive cardiology clinic is also part of its grand designs.

### **CLINICAL SERVICES:**

The Department of Physical Medicine and Rehabilitation provides the following clinical services

- Stroke rehabilitation (Inpatient and Outpatient)
- Cardio Respiratory rehabilitation (Inpatient and Outpatient)
- Physical therapy

- Occupational therapy
- Speech therapy
- Prosthetics and orthotics services
- Disability and fitness evaluation
- Diabetic foot assessment

### **PSG STROKE REHABILITATION CENTRE:**

The centre rehabilitates individuals with Stroke and other Neurological disorders and is equipped with advanced rehabilitation equipments such as

- Robotic hand therapy unit
- Functional electrical stimulation unit
- EMG – Biofeedback unit
- Balance system – SD unit
- Body weight supported treadmill training unit
- Movement therapy system
- Vital stimulation unit (dysphagia rehabilitation)
- Functional training activity unit

### **PSG STROKE REHABILITATION CENTRE:**

The centre rehabilitates individuals with Cardiac disorders like Heart Failure, Angina, Myocardial Infarction, Post CABG and Respiratory disorders and is equipped with rehabilitation equipments such as

- VO<sub>2</sub> max analysis (Cardio Pulmonary Exercise Testing) equipment
- Arm ergometer
- Bicycle ergometer
- Treadmill
- Recumbent bike
- Balance and physical exercise units

### **ACADEMIC ACTIVITIES:**

- “Reorganize” – conference on recent updates in Stroke Rehabilitation and Management is being organized by the Department of Physical Medicine and Rehabilitation.
- “Netrin” – workshop on Neurological Rehabilitation in physiotherapy is being organized by the Department of Physical Medicine and Rehabilitation.

## **CLINICAL TRAINING:**

- Offer internship for students from BCF College of Physiotherapy, Kerela University and AIMST University, Malaysia.

## **PROJECTS AND TOOL DEVELOPMENT:**

- Developed Electronic Goniometer in association with the Department of Textile Engineering, PSG College of Technology for measuring the Elbow joint Range of Motion.
- Developed Eelctromyography Driven Electronic Wheelchiar for high level quadriplegics in association with the Department of Biomedical Engineering, PSG College of Technology.
- Developed Pateint Handling equipment in association with the Department of Department of Production Engineering, PSG College of Technology for safe lifting and transportation of patients.
- Developed Upper Limb Continous Passive Movement Equipment in association with the Department of Department of Elcetrical and Communication Engineering, PSG College of Technology.
- Developed Shoe Integrated Wireless Sensor System in association with Department of Biomedical Engineering, SNS College of Technology for analysis, classification and incessant monitoring of gait characteristics.

## **RESEARCH ACTIVITIES:**

1. THE ROLE OF PHYSIATRIST IN THE DIABETES HEALTHCARE TEAM INDIAN JOURNAL OF PHYSICAL MEDICINE AND REHABILITATION, IJPMR 2015 SEPTEMBER 26(3): 70-75. ISSN 0973-2209.

2. EFFECT OF EXERCISE ON DIASTASIS RECTI ABDOMINIS AMONG THE PRIMIPAROUS WOMEN: A QUASI-EXPERIMENTAL STUDY, INTERNATIONAL JOURNAL OF REPRODUCTION, CONTRACEPTION, OBSTETRICS AND GYNECOLOGY, PISSN 2320-1770 | EISSN 2320-1789.

3. EFFECT OF TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION (TENS) ON THE PERCEPTION OF LABOUR PAIN AMONG PRIMIGRAVIDA AND MULTIGRAVIDA MOTHERS INTERNATIONAL JOURNAL OF REPRODUCTION, CONTRACEPTION, OBSTETRICS AND GYNECOLOGY, PISSN 2320-1770 | EISSN 2320-1789.

4. PERSONALITY TYPES OF PHYSIOTHERAPY STUDENTS PRAACHI JOURNAL OF PSYCHO-CULTURAL DIMENSIONS ISSN: 0971-7061 2009,25,(1&2): 140-143.

5. COMPARISON OF FUNCTIONAL RAMP WALK TEST AND 6 MIN WALK TEST IN HEALTHY VOLUNTEERS: A NEW APPROACH IN FUNCTIONAL CAPACITY EVALUATION. INTERNATIONAL JOURNAL OF ADVANCED MEDICAL AND HEALTH RESEARCH, ISSN: 2350-0298 ISSN(L): 2349-4220.

6. EFFICACY OF SWISS BALL THERAPY IN BALANCE REHABILITATION OF HEMIPLEGIC STROKE PARTICIPANTS. MR. PARTHIBAN. A, DR. V. RAMAMOORTHY, INTERNATIONAL JOURNAL OF RESEARCH AND REVIEW. 2019; 6(6):303-307.

7. EFFECTIVENESS OF MASSED PRACTICE VERSUS DISTRIBUTED PRACTICE ON BED MOBILITY SKILLS AMONG POST STROKE PATIENTS (MR. PARTHIBAN. A), INT J PHYSIOTHER RES 2019, VOL 7(2):3028-33.

8. SIT TO STAND PERFORMANCE ACROSS THREE ATTENTIONAL LOADING CONDITIONS AND ITS CORRELATION WITH TRUNK IMPAIRMENT IN STROKE PATIENTS - A CROSS SECTIONAL STUDY (SUBASH P), INT J HEALTH SCI RES. 2019; 9(7):162-168.

9. EFFECT OF THERAPEUTIC EXERCISE VERSUS RETRO WALKING IN INDIVIDUALS WITH KNEE OSTEOARTHRITIS (SUMATHI G, RAMAMOORTHY V), INT J HEALTH SCI RES. 2019; 9(6):130-136.

10. EFFECTIVENESS OF FACIAL NERVE STIMULATION WITH KABAT TECHNIQUE IN BELL'S PALSY PATIENTS (SUMATHI G, RAMAMOORTHY V). VOL.6; ISSUE: 3; MARCH 2019.

11. PHYSIATRIST MANAGEMENT AND ASSESSMENT OF DIABETIC FOOT (DR. V. RAMAMOORTHY), INT J HEALTH SCI RES. 2019; 9(9):219-223.

12. MORBIDITY PROFILE OF TRUCK DRIVERS: A SOUTH INDIAN CROSS SECTIONAL STUDY(MATHEW AC, RAMAMOORTHY V, SUBASH P), INT J COMMUNITY MED PUBLIC HEALTH. 2019 OCT; 6 (10):4450-4455.

### **FUTURE PLANS**

- Vestibular Rehabilitation Centre
- PSG Palliative Care Centre
- Diabetic Autonomic Neuropathy detection

- Paraplegia Rehabilitation Centre
- Pediatric Rehabilitation Centre
- Adult Inpatient Neuro Rehabilitation Centre