
Department of Rehabilitation

The three basic activities of the Department of rehabilitation include, apart from therapeutic, preventive and teaching activities, scientific and research activities together with publishing activities.

Due to the fact that rehabilitation cooperates with practically all other clinical disciplines in the care of patients, this cooperation is currently also developing in the field of research.

Main research topics

1. Basic characteristics of gait in neurological patients (MUDr. Libuše Smetanová, Ph.D.) and patients with lower limb prosthesis (doc. MUDr. Ivan Vařeka, Ph.D.). Currently, preparatory work is underway in cooperation with doc. MUDr. Oldřich Vyšata, Ph.D. (Department of Neurology, Faculty of Medicine in Hradec Kralove and University Hospital)
2. Monitoring of prosthesis use in patients after lower limb amputation (MUDr. Veronika Polanská). The project is currently being prepared in cooperation with Ing. Tomáš Mrňák (Department of Informatics and Management, University of Hradec Králové).
3. The effect of cognitive rehabilitation in patients with recanalization during stroke (MUDr. Martina Tvrđíková). urrently, an investigation protocol is being prepared in cooperation with MUDr. Libor Šimůnek and prof. MUDr. Roman Herzig (Department of Neurology, FN HK and CU MED HK.). The project also includes collaboration with Prof. Ing Jan Kremláček (Institute of Medical Biophysics, LF HK UK)
4. articipation in the SPARE project registry (MUDr. Libuše Smetanová, Ph.D.), which is a research project of prof. MUDr. Robert Jech, Ph.D., Mgr. Ota Gál, Ph.D. and MUDr. Martina Hoskovcová, Ph.D. (Department of Neurology 1. LF UK and VFN in Prague). The purpose of the registry is to provide a comprehensive scientific evaluation of data from a large group of patients with spastic paresis by monitoring and evaluating upper and/or lower limb function after botulinum toxin injection and/or rehabilitation treatment according to a single concept.
5. Participation in the ERAS programme(Mgr. Pavlína Savková, doc. MUDr. Ivan Vařeka, Ph.D.), which focuses on early preparation of the patient before lung surgery with the assumption of subsequent accelerated recovery (Enhanced Recovery After Surgery). Cooperation with doc. MUDr. Vladimír Koblížek, Ph.D., MUDr. Vratislav Sedlák, Ph.D. (Department of Pneumology, FN HK and CU MED HK).

Scientific research team

The research team is made up of doctors from the rehabilitation clinic (see above) together with some therapists, supported by the clinic secretariat. In connection with the significantly interdisciplinary status of rehabilitation, the clinic cooperates with other departments of the CU MED HK and FN HK.

Equipment

The department has a number of tools and devices that are designed for rehabilitation treatment as well as for research use (e.g. Lokomat exoskeleton system for robotic walking, Balance Master system for diagnosis and therapy of balance functions, Bertec force platforms, hand dynamometers, etc.)

Cooperation

- Department of Neurology, FN HK and CU MED HK doc. MUDr. Oldřich Vyšata, MUDr. Libor Šimůnek, prof. MUDr. Roman Herzig
- Department of Pneumology, FN HK and CU MED HK doc. MUDr. Vladimír Koblížek, Ph.D., MUDr. Vratislav Sedlák, Ph.D.
- Department of Medical Biophysics, CU MED HK prof. Ing. Jan Kremláček, Ph.D.
- Department of Informatics and Management, University of Hradec Králové Ing. Tomáš Mrňák
- Department of Neurology 1. LF UK and VFN in Prague prof. MUDr. Robert Jech, Ph.D., Mgr. Oty Gál, Ph.D., MUDr. Martina Hoskovcová, Ph.D.

International Cooperation

As part of international cooperation, the department has established contacts with the Rehabilitation Hospital, which is part of the Chaim Sheba Medical Center, Tel Hashomer (Prof. Gabriel Zelig), which is a teaching facility of the Sackler

Faculty of Medicine, Tel Aviv University. Erasmus+ exchanges are currently underway and there is mutual interest in research and publication collaboration.