

Annual Report 2021



**PAEDIATRIC REHABILITATION
CENTRE**

**Annual report
Association Lokhos / Centre qap
MARCH 2022**



INTRODUCTION

In 2018 a group composed of doctors, therapists, and parents of children with specific needs came together with a dream of building something completely new in south-west Switzerland. They imagined a place which offered a mix of multidisciplinary, traditional and innovative therapy for children; it would have a connection to Swiss hospitals and would be forward looking in its methods, in robotics and in virtual reality.

The Association Lokhos was created in order to supplement the region's facilities and respond to families' needs. Centre qap opened its doors in 2020, inspired both by the Paediatric Rehabilitation Centre in Affoltern am Albis, Switzerland, and also by a centre in Poland offering intensive therapy over several weeks, the Marzenia Centre in Goldap.

The first has a waiting list of a year, the second is geographically distant from Switzerland, but their common denominator is that they use Lokomat* equipment. The desire to provide the same equipment for children here was the driving force behind Centre qap.

Centre qap is a 550 square-metre multidisciplinary paediatric rehabilitation facility on one floor which encourages the development of children in the Lake Geneva region who are living with a variety of disorders.

To date, since opening in June 2020, it has welcomed more than **290** patients aged between 0 et 20 (and, exceptionally, three young adults on Lokomat).

It offers tailored, targeted treatment for babies, children, and adolescents up to age 20, who need developmental support or specialised rehabilitation.

* **Lokomat**: high-tech medical device designed for intensive functional locomotor training. During motor function re-education, body weight is partially supported while two computer-controlled robotic orthoses move the patient's legs in a natural walking movement on a treadmill. The Lokomat can be adapted for a wide range of locomotor abilities/limitations by modifying the percentage of movement assistance via the orthoses, the amount of bodyweight support, step size and treadmill speed.

Working in conjunction with their families, therapists and doctors, Centre qap aims to provide effective support for children experiencing developmental difficulties or impairments from illness or trauma. It also aims to deliver the best conditions for them to progress, starting as early as possible for optimal rehabilitation.

Centre qap works as an interdisciplinary team coordinating with the therapists and the health professionals involved in a child's well-being, including paediatricians, specialists in neurology, neuro-rehabilitation, orthopaedics, pulmonology, and nutrition, as well as experts in robot-assisted therapy.

In operation for only 20 months, with an ever-growing demand, Centre qap has reached capacity. This clearly demonstrates the massive need for such a centre in this part of Switzerland. Centre qap is therefore already planning to expand, by extending its premises and engaging new therapists, to be able to offer new opportunities for therapy and achieve new objectives.

THERAPY AT qap



Our 550 square-metre space is divided into different therapy rooms. Currently we have around **140** young patients of varying profiles, most of whom require long-term treatment (for chronic, neurological, orthopaedic or respiratory disorders) and others who consult for short-term treatment (for transient conditions, rehabilitation after accidents or surgery).

In a typical week, some 70% of treatments are directed towards chronic (long-term) conditions and around 30% towards transient (short-term) conditions.

Problems treated

- Diverse neurological disorders
- Transient delayed motor development
- Orthopaedic problems – chronic or acute
- Respiratory or cardiac conditions
- Post-surgical conditions (after trauma or orthopaedic problems requiring surgery)
- Developmental coordination disorders
- Learning difficulties

THE CENTRE qap TEAM



Our therapists

- 4 physiotherapists (a fifth joins our team 1st April 2022)
- 1 occupational therapist, seconded from the Centre d'Ergothérapie O'Quotidien (a second occupational therapist joins qap in September 2022)
- 1 human movement technology and robotics specialist (Lokomat and MTT*) assisted by a year-round rotation of university students on placement in the relevant field. This specialist is responsible for developing research projects connected with the Centre's programmes, and oversees collaborative clinical research in particular with the Swiss University Hospitals.
- 1 massage therapist
- 1 virtual reality engineer

To expand our list of treatments, we are still seeking a speech and language therapist, and have just started looking for a new osteopath.

External consultants

- Virtual reality specialists from the HUG (Geneva University Hospital) / Laboratoire de la Marche (Walk Lab)
- Campus Biotech team (collaboration on virtual reality)
- Trinoma (specialists in motion capture and digital imaging)
- 1 special education teacher
- 1 legal advisor

Administration and reception

- 1 person in charge of accounting, reception and appointments



***MTT**: Medical Training Therapy" (MTT) consists of exercises designed to improve muscle function which combine movement, strength, stamina and stability. MTT also leads to improved cardio-vascular functioning during physical effort.

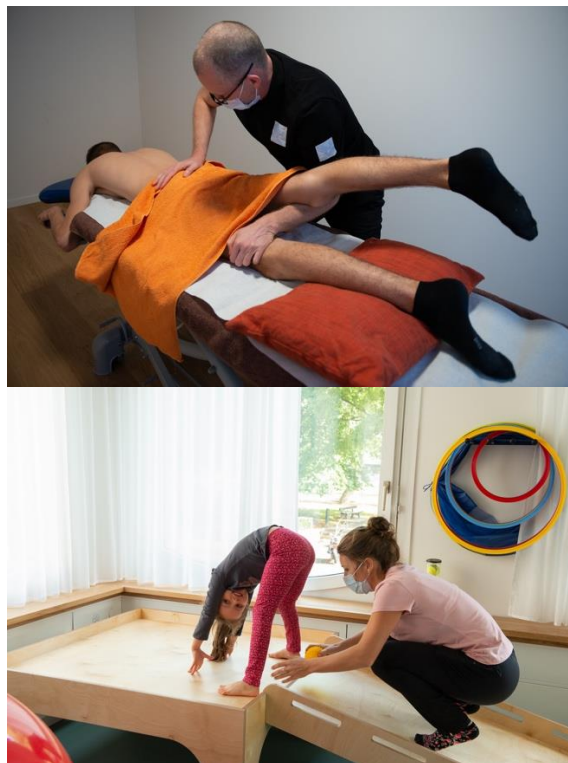
Reimbursement by assurances

Most of our therapists are self-employed and invoice insurance companies directly.

We begin many therapies (such as Lokomat or intensive therapy) without waiting for an insurance company's agreement. Depending on the case, the insurance decision can take up to four or six months, a delay which can hinder a patient's recovery or progress.

Until now, no application for treatment has been refused by insurances.

One of the Association's principles is to finance some treatments itself while awaiting replies from the relevant body and to avoid holding up a child's progress or rehabilitation for administrative reasons. It allows therapy to begin immediately and ensures care where treatment might be refused by the insurance company despite being essential for a patient's rehabilitation.



Staffing – self-employed therapists and salaried employees

As a non-profit association, our only employees are the person responsible for administration and reception, the Lokomat movement technology and robotics specialist, and a virtual reality engineer. All other members of the therapy team are either self-employed or, like the occupational therapist, on secondment from another facility or salaried by another of the Centre's independent therapists.

The Lokomat is considered part of physiotherapy treatment.

Looking down the road to future development, Centre qap is waiting for official recognition as a healthcare facility by the Department of Health (DSPA). At that point, we will be able to employ salaried staff.

Therapy room rental

Self-employed therapists rent their therapy rooms, thereby reducing the overall rent for which the Association is responsible.

STATISTICS 2021

Number of Centre gap patients

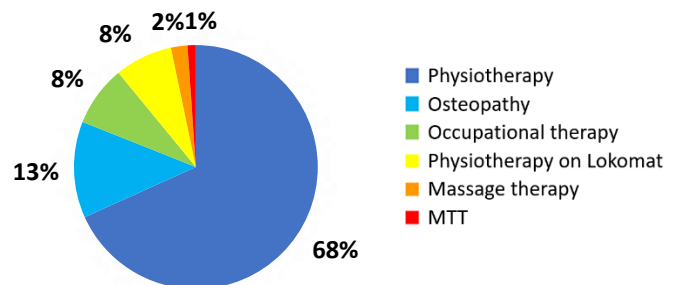
Number of patients since opening (June 2020 – December 2021):	292
Number of patients January 2021 – December 2021:	242
Currently attending (December 2021):	120

Patients according to therapy type since opening (June 2020 – December 2021)

- Physiotherapy: 200
- Osteopathy: 69
- Occupational therapy: 22
- Physiotherapy on Lokomat: 23
- Massage therapy: 7
- MTT (Medical Training Therapy): 3

Patients according to therapy type (January 2021– December 2021)

- Physiotherapy: 187
- Osteopathy: 35
- Occupational therapy: 22
- Physiotherapy on Lokomat : 21
- Massage therapy: 6
- MTT: 3



Patients currently (December 2021) under care at the Centre

- Physiotherapy: 98
- Occupational therapy: 16
- Physiotherapy on Lokomat: 14
- MTT: 2
- Massage therapy: 1

In 2021, 32 patients underwent combined therapy

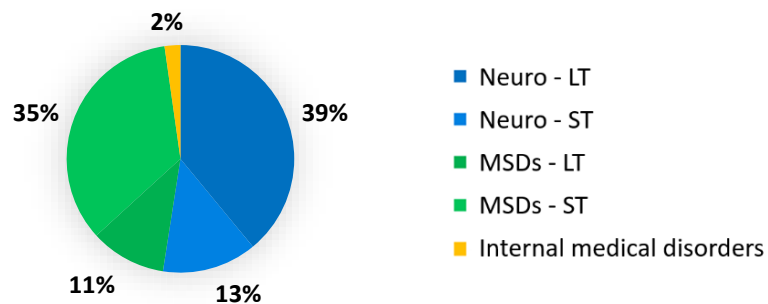
- 18 Physiotherapy / Osteopathy
- 6 Physiotherapy / Occupational therapy
- 3 Physiotherapy / Lokomat
- 2 Massage therapy / Lokomat
- 1 Massage therapy / Physiotherapy
- 1 Occupational therapy / Osteopathy
- 1 Physiotherapy / MTT

Types of treatment (January 2021 – December 2021)

- 107 in short-term care
 - 106 Physiotherapy
 - 1 MTT
- 116 in long-term care
 - 81 Physiotherapy
 - 21 Physiotherapy on Lokomat (6 trial sessions, 3 intensive, 5 intensive developing into chronic, 7 chronic)
 - 22 Occupational therapy
 - 2 MTT

Categories (patients undergoing treatment January 2021– December 2021)

- 117 with neurological disorders (cerebral palsy, developmental disorders, paraplegia, etc.)
 - 87 physiotherapy, 21 physiotherapy on Lokomat, 22 occupational therapy , 1 MTT
 - 87 long term / 30 short term
- 101 with musculoskeletal disorders (MSDs) (club foot, plagiocephaly, sprained ankle, etc.)
 - 100 physiotherapy, 2 MTT
 - 24 long term / 77 short term
- 5 with internal medical disease/disorders (Cystic fibrosis, cardio-respiratory problems, etc.)
 - 5 physiotherapy
 - 5 long term



NB:

1. A large number of patients attend the Centre several times a week for treatment.
2. Since Centre qap opened, several patients have received intensive, all-round therapy (four to five sessions per week).



2021 NEWS

Outline of a partnership between Centre qap, HUG (Geneva University Hospital), CHUV (Lausanne University Hospital) and Clair Bois

We have met several times with HUG this year leading each time to constructive discussions on the subject of a partnership in south-west Switzerland.

After identifying respective needs, it was concluded that, in order to create such a partnership, a corner stone was needed. This should be neuro-rehabilitation doctor who would act as the link between the various institutions and coordinate patients' therapy, and assist us in setting up year-round intensive therapy, which is one of the Centre's main objectives.

This doctor, seconded and supervised by the CHUV, would split their time as follows:

40% HUG, 40% Centre qap, 20% Clair-Bois.

We await detailed figures by May 2022.

Because the HUG only offer care to hospitalised patients, it was suggested that we become their "outpatient" therapy centre, therefore substantially increasing the number of patients attending Centre qap.

Intensive therapy

During 2021, 13 children benefitted from personalised intensive therapy, over varying lengths of time and frequency. These intensive sessions were either Lokomat-based, physiotherapy-based, or a combined therapy.

The aim of intensive treatment is to reinforce specific targets to improve a patient's particular motor function deficiencies and spur optimal recuperation.

This project will see further development for intensive therapy to be offered to greater numbers of children – one of Centre qap's foremost objectives.

Virtual reality

The year 2021 allowed the Centre to make great strides in its virtual reality project.

Working with various specialists, the centre developed two new re-education tools making use of this new technology.

A treadmill connected to a screen allows a patient to work on their gait (walking or running) in a totally immersive environment, and a game specially designed to exercise the upper limbs have been developed through motion capture technology.

Future projects will allow different immersive worlds to be presented as well as new fun games to motivate re-education.



PROJECTIONS 2022/23

- Focus on maintaining excellence in welcoming and helping the children!
- Further develop continuing high-quality therapy and coordination between therapists.
- Build strong relationships with quality “outside” bodies to enhance collaboration between therapists who treat the same children.
- Develop therapies using virtual reality and robotics which immerse children in different worlds while helping to work on their balance, coordination, reaction speed, etc.
- Continue the existing collaboration with the HUG’s Laboratoire de la Marche (Walk Lab) and the Campus Biotech team.
- Increase training opportunities: Medek in June 2022, Bobath, plagiocephaly, scoliosis...
- Build up Medical Training Therapy (MTT) to train children who come to qap because they are living with a chronic or transient handicap, or others in remission from conditions such as cancer, and those with weight issues (obesity).
- Bring to fruition a partnership with HUG and CHUV, and set up the sharing of a neuro-rehabilitation doctor as of November 2022.
- Extension of the Centre – rental of a ground-floor area to address the shortage of space which limits our current capacity (children on waiting list for treatment).
- Planned hire of new therapists to be able to adequately respond to expectations and with a view to increasing the Centre’s services (in the immediate, a physiotherapist – April 2022 – and an occupational therapist – September 2022).
- Creation of a “Sports Centre” to offer new activities and follow the children’s progress in measurable situations on a daily / weekly basis. A “pathway” is to be built linking qap’s “medical” et “sport” centres. Our aim: to guide children into a sporting activity encouraging them to reach beyond their current limits.
- Look into developing personalised programmes “sponsored” by donors.
- Gain official recognition as a healthcare facility by the Department of Health (DPS), to be able to employ salaried therapists and set up year-round intensive therapy.



- Open a classroom/ homework room with qualified teachers in attendance for children in intensive therapy to offset missed school time.
- Urgently hire another – minimum half-time – Lokomat specialist.
- Hire:
 - a new osteopath.
 - a psycho-motor therapist
 - a speech and language therapist
 - a new secretary during 2023 to assist with appointments and intensive therapy scheduling

CONCLUSION

The statistics show the number of patients currently attending the Centre. They do not however reflect the number of children waiting to attend.

Becoming the “outpatient” centre for HUG (partnership under discussion), and taking account of the already high pressure on Centre qap (waiting list for all therapies), together with our intention to develop intensive therapy and offer adaptation to sport will be an exciting challenge. And to ensure we meet it, it is imperative that we expand and engage new therapists.

In this way, we will be able to offer the greatest possible opportunities for qap’s young and older patients to develop their potential. In offering on-going, attentive and personalised care, we can accompany every child – and their families and helpers – on their journey.



Centre qap
Rue Jacques-Grosselin 8
1227 Carouge
022.930.88.88
www.centreqap.ch