

# GLA:D<sup>®</sup> Switzerland osteoArthritis Annual Report 2019





## Editorial

This is the first Annual Report of the GLA:D® Switzerland osteoArthritis. Thank you very much for your interest.

About half of all people over the age of 60 suffer from knee or hip osteoarthritis. The consensus of international guidelines recommends specific patient education and exercise as the first choice of treatment – combined with weight reduction, if necessary. Other optional measures, including drug therapy, passive therapeutic interventions, and the provision of aids, may be used to complement these treatments. Surgery is deemed to be the last resort in the treatment of osteoarthritis and should only be performed when other conservative treatments have failed.

GLA:D® is a structured education and exercise programme that translates the guideline recommendations of 'Patient education and exercise as first choice' into a compact and attractive programme.

GLA:D® was originally launched in Denmark in 2013 and, due to its great success, the programme was subsequently rolled-out in Australia, Canada, China and, in May 2019, in Switzerland.

This 2019 Annual Report presents an overview of the GLA:D® osteoArthritis launch in Switzerland and reports the first results from the electronic register. The data were collected from patient questionnaires and from physiotherapist forms for the period ending 31 December 2019. The statistics are entirely descriptive, and the results should be interpreted with caution.

For 2020, the goals of GLA:D® in Switzerland are to further consolidate the GLA:D® program using targeted marketing activities, to further develop the register and to optimize postprogram offers to achieve sustainable success.

The external funding from the 'Stiftung Gesundheitsförderung Schweiz' (received within the framework of the promotion of projects for "Prevention in Health Care") will help us to achieve these goals.

We trust you will enjoy reading our 2019 Annual Report!

On behalf of the interest group GLA:D® Switzerland,

Prof. Dr. Karin Niedermann  
Head of Research

Prof. Dr. Omega E. Huber  
Project Manager



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# What is GLA:D® ?

GLA:D® stands for ‘Good Life with osteoArthritis in Denmark’ and is a non-profit initiative of the University of South Denmark. GLA:D® was launched in Denmark in 2013 with the aim of implementing international best practice guidelines for the treatment of hip and knee osteoarthritis. GLA:D® contributes to improving the care of people with knee and hip osteoarthritis through exercise and training, as recommended by international treatment guidelines.

The quality-controlled programme (hence the ® in the name) consists of three parts:

### Training course for physiotherapists

During a two-day training course, physiotherapists learn the tools and documentation necessary to deliver the GLA:D® programme in their clinical practices.

### The course includes:

- Current evidence on osteoarthritis and its management
- Introduction to the GLA:D® structure and processes
- Instruction on the register and data collection
- Information on the digital implementation material in the login section of the website

All physiotherapists successfully completing the training course (based on attendance and a passed multiple-choice test) receive a certification with three-year validity. Their names are listed on the GLA:D® Switzerland website.

### GLA:D® Programme

The GLA:D® Switzerland program uses a uniform examination process and standardised, evidence-based, practice-proven consultation, education and exercise programs, but with individualised dosage and options for improvement.

3

individual sessions for the entrance examination, clinical tests und practical introduction to the exercise programme

2

group sessions for consultancy and education

12

group sessions with neuromuscular exercises

1

individual session for the exit examination, including a short report to the referring physician

Patients completing the programme will have acquired the necessary skills to manage their knee or hip problems independently. The long-term results after 12 months from Denmark confirm this outcome. Pain, walking ability and quality of life were significantly better after 3 and 12 months and showed no deterioration after 12 months, in contrast to other treatment methods.

### Systematic Data Collection

Data is collected by means of questionnaires at the entrance and exit examination sessions, as well as at the follow-up sessions after 8–12 weeks and after 12 months. All data collected are saved to the GLA:D® Switzerland register in anonymous form. Reports of results are produced annually. The data collection process has been approved by the responsible ethics committees throughout Switzerland.

# Where is GLA:D® delivered?

The first training course for physiotherapists in Switzerland took place in April 2019. It was run by the GLA:D® Denmark team. Twelve physiotherapists were instructed on how to run the GLA:D® program and, thus, became the first physiotherapists in Switzerland qualified to deliver the GLA:D® programme in their clinical practices. The physiotherapist training courses and the associated GLA:D® programmes were offered in German-speaking Switzerland from May 2019, followed by the French-speaking and Italian-speaking regions from Autumn 2019.

A total of 127 physiotherapists have been trained in Switzerland this year.

The GLA:D® programme is now offered in 19 cantons and 94 locations in Switzerland:

Canton	Location	Number PTs
AG	7	11
AI	2	2
AR	1	1
BE	4	5
BL	3	3
BS	3	5
FR	1	1
GE	4	7
GL	3	3
GR	2	2
NW	1	2
SG	5	8
SH	1	2
SO	5	6
TG	4	7
TI	21	31
VD	7	8
VS	8	9
ZH	13	20

# The Patients

## Number of patients and their distribution in Switzerland

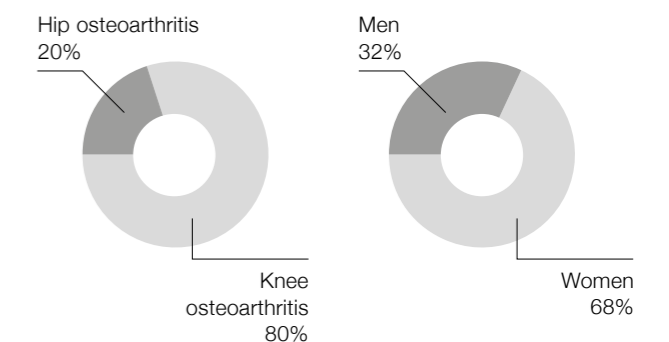
By the end of December 2019, a total of 337 patients in Switzerland had taken part in the GLA:D® programme, 91 percent in the German-speaking region, 2 percent in the French-speaking region and 7 in the Italian-speaking region. The programme was delivered in the French-speaking and Italian-speaking regions of Switzerland only from Autumn. Due to the small number of patients per language region, the results have not been separated in this report.

## Age, Gender and Body Mass Index

Of the total 337 patients, 68 percent were female (81 percent with knee problems and 19 percent with hip problems) and 32 percent were male (79 percent with knee problems and 21 percent with hip problems). Knee patients had an average Body Mass Index (BMI) of 27 and hip patients an average BMI of 25.9.

## Knee and Hip

- 80% (n=270) of the patients participated due to knee problems and 20% (n=67) due to hip problems.
- 51% of patients had not undergone previous surgery on the most affected joint.
- 97% of patients had not planned surgery.
- 84% of patients were recently x-rayed and, of these, 81% had received a diagnosis of osteoarthritis.



## Patient Characteristics before GLA:D®

	Total Patients (n=337)	Knee osteoarthritis (n=270)	Hip osteoarthritis (n=67)
<b>Age</b> ave. (range)	65.3 (37-88) years	65.2 (41-88) years	65.4 (37-85) years
<b>Gender</b> n, (%)			
Female	228, 67.7%	184, 68.1%	44, 65.7%
Male	109, 32.3%	86, 31.9%	23, 34.3%
<b>BMI</b> ave. (range)	-	27.3 (17.6-44.6)	25.9 (18.7-34.3)
<b>Employment</b> n (%)			
No	186 (59%)	150 (60%)	36 (55%)
Yes	129 (41%)	101 (40%)	28 (45%)
<b>Home situation</b> n (%)			
Living alone	91 (28%)	77 (30%)	14 (22%)
Living with others	234 (72%)	184 (70%)	50 (78%)
<b>Educational level</b> n (%)			
≤ Compulsory school	34 (10%)	31 (12%)	3 (5%)
Apprenticeship or fulltime vocational school	132 (41%)	106 (40%)	26 (41%)
≥ Grammar School	160 (49%)	125 (48%)	35 (55%)

n = number; Ave. = average; BMI = Body Mass Index

# Results

The results reflect the change between data collected at the entrance to the programme and the exit from the programme (about 8–12 weeks after start). As of 31. December 2019, data from 167 patients from ended programmes had been collected (133/80% with knee osteoarthritis and 34/20% with hip osteoarthritis).

## Key Results

- Pain reduction (NRS) of 35% / 22% (knee osteoarthritis/hip osteoarthritis)
- Improvement in self-assessed function (KOOS/HOOS total score) of 25% / 13% (knee osteoarthritis/hip osteoarthritis)
- Improvement in tested function (Chair Stand Test) of 23% / 18% (knee osteoarthritis/hip osteoarthritis)
- Improvement in tested walking ability (40-meter Paced Walk Test) of 13% / 11% (knee osteoarthritis/hip osteoarthritis)

## Results after GLA:D® Programme

	Knee Osteoarthritis (n=133)			Hip Osteoarthritis (n=34)		
	Start Ave.	End* Ave.	Change %	Start Ave.	End* Ave.	Change %
<b>Pain</b>						
NRS Ave.	5.10	3.29	-35%	4.58	3.55	-22%
<b>KOOS/HOOS</b>						
Total Score	25.19	31.55	+25%	27.41	31.10	+13%
Sub-scales	Pain	8.03	+27%	9.00	10.23	+14%
	ADL	10.19	+19%	10.39	11.81	+14%
	QOL	6.98	+32%	8.02	9.06	+13%
<b>Chair Stand Test</b>						
n in 30 seconds	13.5	16.6	+23%	14.7	17.4	+18%
<b>40-meter Paced Walk Test</b>						
Duration in seconds	26.4	23.4	+13%	25.8	23.0	+11%

\*8–12 weeks after start  
n=number; Ave.=average

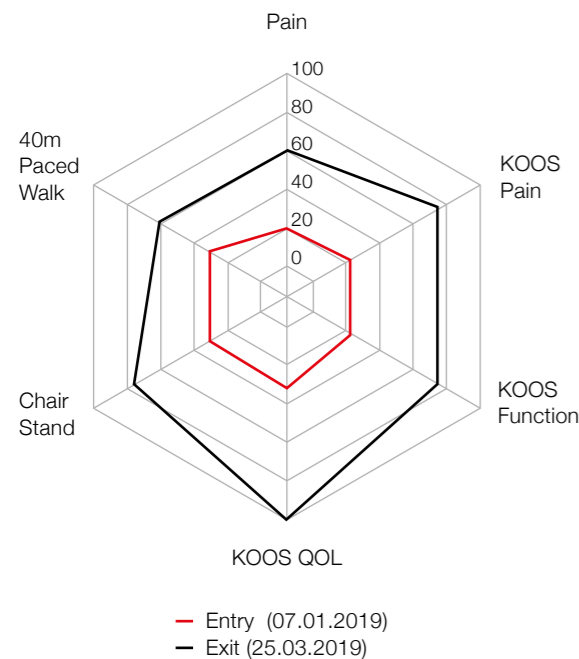
NRS=Numeric Rating Scale (range 0-10; 0=no pain, 10=very strong pain).  
KOOS/HOOS Questionnaires = Knee/Hip Injury and Osteoarthritis Outcome Score  
With scale from 0 = 'completely restricted function' to 48 = 'best possible function';  
Each of the following sub-scales from 0 (minimum) to 16 (maximum): Pain  
ADL = Function of Daily Living  
QOL = Quality of life

## Conclusion

Based on the first 3 months of evaluation, the statement can be made that pain, self-assessed function, and tested function all significantly improved for both knee and hip osteoarthritis patients. These results are similar to those found in Denmark, which has already treated some 50'000 participants.

### Report to the referring physician

A report can be made containing subjective and objective collected results following completion of treatment.



### Fictitious Example / Explanation:

KOOS = Knee Injury and Osteoarthritis Outcome Score with sub-scores for Pain, Function (ADL) and Quality of life (QOL); Pain (NRS), Chair Stand = 30 seconds Chair Stand Test, 40m Paced Walk = 40m Paced Walk Test

To display the various measurement instruments with their different scales in a spider chart, the minimum and maximum values for all scores are defined. The actual values are then converted on a scale of 0–100. Where necessary, the scores are reversed, so that enlargement always represents improvement.

# About GLA:D®

### Interest Group GLA:D® Switzerland

The interest group was formed on 14th November 2018 and is composed of the following organisations:

### ZHAW, Zurich University of Applied Sciences, Institute of Physiotherapy:

- Prof. Dr. Omega E. Huber, Project Manager
- Prof. Dr. Karin Niedermann, Head of Research
- Teresa Bossard, Project Assistant
- André Meichtry, Project Statistician

### HES-SO Valais-Wallis, School of Health Sciences:

- Prof. PD. Dr. Lara Allet, responsible for the French-speaking region of Switzerland
- Roger Hilfiker, responsible for the French-speaking region of Switzerland

### SUPSI, University of Applied Sciences and Arts of Southern Switzerland:

Luca Scascighini, responsible for the Italian-speaking region of Switzerland

### svomp, Swiss Association of Orthopaedic-Manipulative Physiotherapy:

- Felicitas Frank, President
- Rick Peters, Vice President

### Sportfisio, The Swiss Sports Physiotherapy Association:

Prof. PD. Dr. Lara Allet, Member of the Board

### RLS, Rheumatism League of Switzerland:

Martina Roffler, Head of Services

### GLA:D® International Network

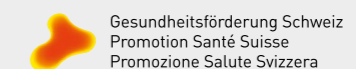
GLA:D® was originally launched in Denmark in 2013 and, due to its great success, the programme was subsequently rolled-out in Australia, Canada, China and, in May 2019, in Switzerland. The GLAD® International Network (GIN) was established in 2018. Under the leadership of Denmark, GIN meetings are held twice a year. One meeting is held physically, while the other takes the form of a virtual meeting. At this year's meeting, three sub-groups were created to consider the issues of programme content, main variables, and telemedicine. For further information, we refer you to the GIN-website: [www.gladinternational.org](http://www.gladinternational.org).

### External Funding

For the years 2020 – 2023, 'Gesundheitsförderung Schweiz' has committed substantial financial support to our programme under the framework of the promotion of projects for "Prevention in Health Care". Our focus will be on the further development of the register and website, as well as the further consolidation of the GLA:D® Switzerland program and its sustainability.

We would like to thank 'Gesundheitsförderung Schweiz' for its support and the trust it has placed on us.

With support from the promotion of projects for "Prevention in Health Care".



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### Thanks

We sincerely thank the Swiss Society for General Internal Medicine, the Swiss Society for Rheumatology and Swiss Orthopaedics for their support.

 **SGAIM SSMIG SSGIM**  
Schweizerische Gesellschaft für Allgemeine Innere Medizin  
Société Suisse de Médecine Intérieure Générale  
Società Svizzera di Medicina Interna Generale  
Swiss Society of General Internal Medicine

 **swiss  
orthopaedics**

Schweizerische  
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Rheumatologie 