

Basic GUI | Database for Therapeutic Interventions

*Module: Basic GUI
2. Semester, Interaction Design, FS 2020, ZHdK*

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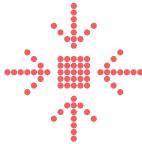
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10 laws of simplicity

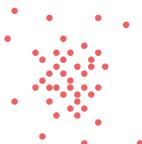
by John Maeda



Law 1 – Reduce

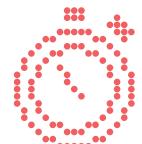
A real simplification is achieved by reducing the functionalities of a system without significant disadvantages. John Maeda calls this method **SHE: Shrink, Hide, Embody**.

When the object is shrunk, expectations can be lowered and when the complexity is hidden, it allows the user to manage the expectations themselves. By embodying a higher quality sense of feeling through materials and other messages, an appreciation can be implied.



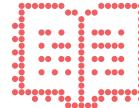
Law 2 – Organize

Two questions arise in connection with decompliation: What should I hide and where should I hide it? However, in the long run, you need an efficient organizational scheme by asking the question "What belongs to what". Organization makes a system of many elements look like less. John Meade calls this method **SLIP: Sort, Label, Integrate, Prioritize**.



Law 3 – Time

Saving time feels like simplicity. Saving time means reducing time, and the **SHE (Shrink, Hide, Embody)** method helps to achieve this. It means that we can create the perception of time reduction by shrinking and hiding, and we can embody for the loss by expressing the most important things in a clever way.



Law 4 – Learn

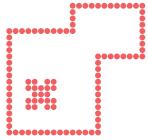
Good design, up to a certain grad, consists in the ability to immediately create a feeling of familiarity. Knowing makes everything easier. John Maeda explains that best way to learn is to have the desire to acquire very specific knowledge. There is a holistic approach: **BRAIN**

Basics are the beginning.
Repeat yourself often.
Avoid creating forgiveness.
Inspire with examples.
Never forget to repeat yourself.



Law 5 – Differences

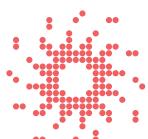
Simplicity and complexity need each other. The more complexity is on the market, the more simple things stand out. Regular changes of the differences, an increase towards complexity is followed by a decrease towards simplicity, again upwards towards complexity, and again.



Law 6 – Context

What lies at the edge of simplicity is certainly not a marginal phenomenon. This law deals with the importance of what can be lost during the design process. With the law we ask the question; what happens between the rhythmic beats and where we are in the flow of the song. There is a balance between orientation and disorientation:

How much directionality can I tolerate?
How much disorientation can I afford?



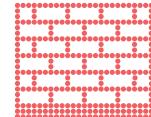
Law 7 – Emotion

More emotions are better than less. This law contradicts the first law “Reduce”. There are people and they would say; simplicity is not only cheap, it looks cheap. If you value emotions more highly, you need not be afraid to add embellishments or new aspects of meaning.



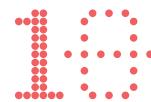
Law 8 – Trust

We can only really relax if we trust that we are in the best hands and are treated with the best intentions. “To undo/reverse” gives the person the knowledge that it is not a final decision and can always be corrected.



Law 9 – Failure

Some things cannot be simplified. We can learn from our mistakes. That can become a success for another in the form of a beautiful form of complexity.



Law 10 – The One

John Maeda noted that some ideas did not fit seamlessly under a single law, but they were concentrated around three technical processes that are particularly relevant to the theme of simplicity.

He retained them in the One Law and wrote 3 keys:

Key 1 – Far away

More seems to be less if you put it far, far away.

Key 2 – Open

Openness simplifies the complex.

Key 3 – Energy

Consume less, gain more.

Discover Phase

Introduction

Especially in the field of therapeutic interventions, there is a deficit of clearly structured information accessible to all. Often the descriptions of therapies and the elements from which they are composed are too imprecise. Unfortunately, so much information is lost, which can have an influence on the success of the therapy. It was our task to develop a service to facilitate documentation and classification. This service should offer an attractive tool for documentation, and at the same time serve as a database for exchange and research purposes through the connection with the ICHI classification.

Our cooperation partner was the ZHAW Health Movement Laboratory with Dr. Christoph Bauer, Head of Research Group Movement Laboratory, Deputy Head of Research Center Physiotherapy Science.

International Classification of Health Interventions (ICHI)

WHO: World Health Organization

WHO-FIC: World Health Organization - Family of International Classifications

„A health intervention is defined as:

An act performed for, with or on behalf of a person or a population whose purpose is to assess, improve, maintain, promote or modify health, functioning or health conditions“

Madden and Martinuzzi (2020)

ICHI is a classification of health interventions.

ICHI was developed by the WHO and the WHO-FIC Network with the aim of meeting a number of use cases. Among them are international comparisons and a classification for countries that do not yet have one.

ICHI describes health interventions along three axes: Target, Action and Means:

- Target – entity on which the Action is carried out
- Action – deed done by an actor to the Target
- Means – processes and methods by which the Action is carried out

Through extension codes, users can write additional information about an intervention if required.

ICHI now contains more than 7,000 interventions.

Based on the intervention goal, ICHI interventions are grouped into four sections:

- Interventions on Body Systems and Functions
- Interventions on Activities and Participation Domains
- Interventions on the Environment
- Interventions on Health-related Behaviours

Visualization of the shortened ICHI code

1. Interventions on Body Systems and Functions

01 - Interventions on the Nervous System and Mental Functions

02 - Interventions on the Visual System

03 - Interventions on the Ear and Mastoid

04 - Interventions on the Haematopoietic and Lymphatic System

05 - Interventions on the Endocrine System

06 - Interventions on the Circulatory System

07 - Interventions on the Respiratory System and Voice and Speech

08 - Interventions on the Digestive System

09 - Interventions on the Integumentary System

10 - Interventions on the Musculoskeletal System

10 - Interventions on the Musculoskeletal System

Area

MB - Vertebral column



Target

MBA - Cervical vertebral column



MBG - Thoracic vertebral column



MBI - Thoraco-lumbar vertebral column



MBM - Lumbar vertebral column



MBO - Lumbo-sacral vertebral column



MBZ - Vertebral column, unspecified



Action

PA - Manipulation

PB - Mobilisation

LC - Indirect Traction

Means

ZZ - Other and unspecified means

Area

MT - Functions of joints and bones



Target

MT1 - Neuromusculoskeletal and movement related functions

+ based on ICF



MT2 - Functions of joints and bones

+ based on ICF



MTB - Mobility of joint functions



MTC - Stability of joint functions



MTD - Mobility of bone functions



Action

AA - Assessment

AC - Test

AE - Inspection

AM - Observation

PG - Assisting or leading exercise

PH - Training

PM - Education

PN - Advising

PP - Counselling

RB - Practical support

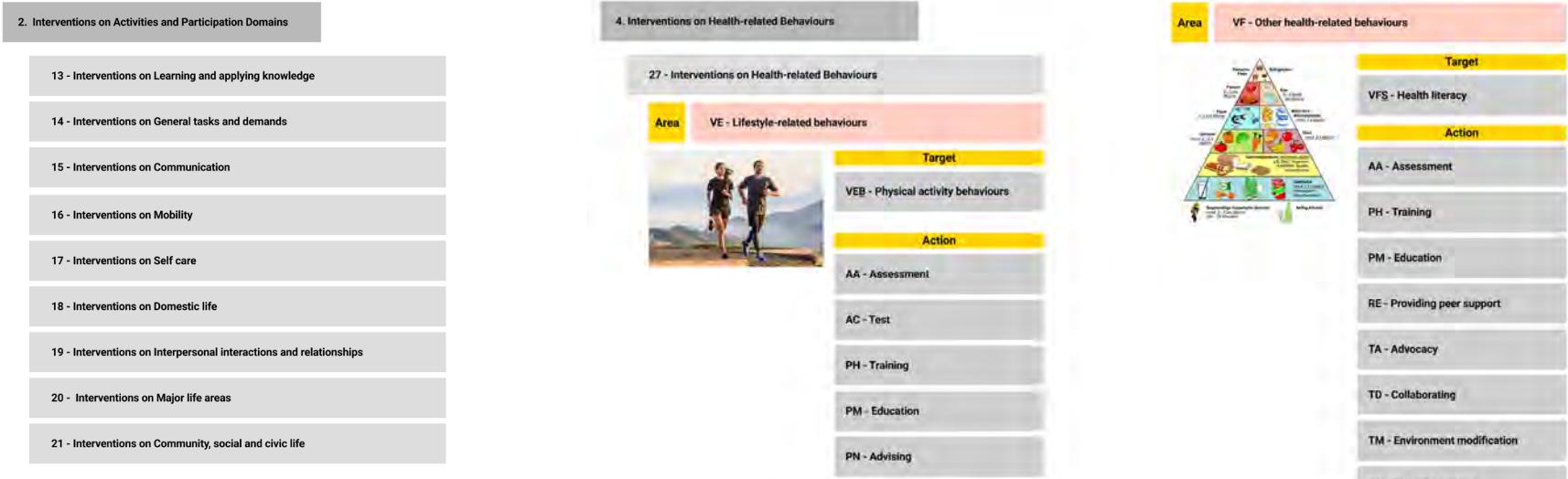
RC - Emotional support

Means

ZZ - Other and unspecified means

Our cooperation partner Christoph, has shortened the ICHI classification for us and we have visualized it here.

The first section of ICHI: Interventions on Body Systems and Functions with its twelve subcategories.



3. Interventions on the Environment
22 - Interventions on the Environment: Products and technology
23 - Interventions on the Natural Environment including human changes
24 - Interventions on the Environment: Support and relationships
25 - Interventions on the Environment: Attitudes
26 - Interventions on the Environment: Services, Systems, Policies

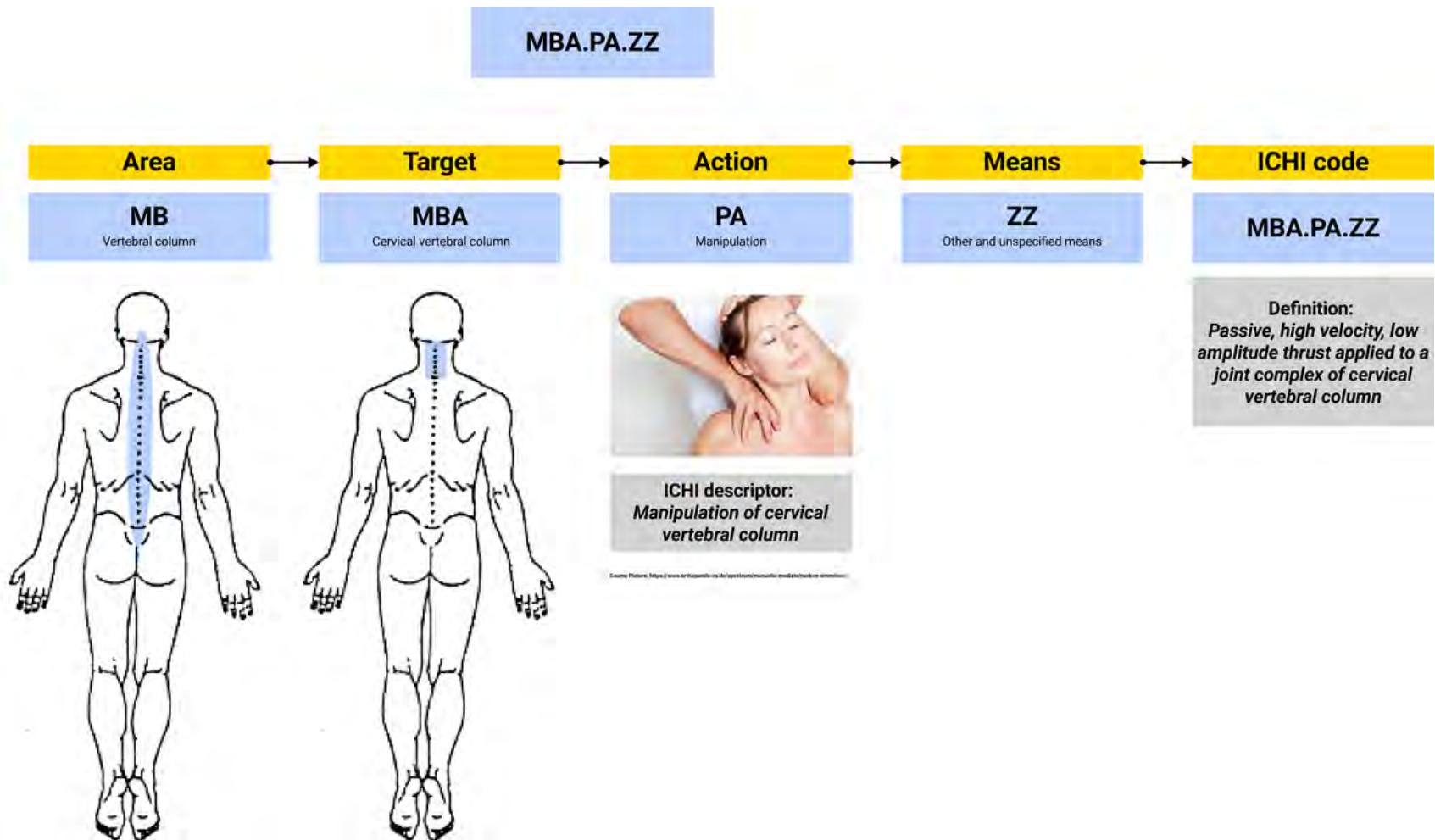
The other sections of ICHI: Interventions on Activities and Participation Domains, Interventions on the Environment and Interventions on Health-related Behaviours.

The visualization shows the Short ICHI partially up to its three axes of goal, action and means.

Not all stem codes of the ICHI are relevant for physical therapists.



Visualization of an ICHI stem code



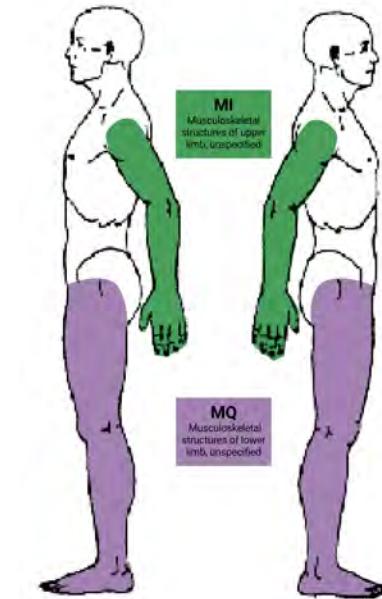
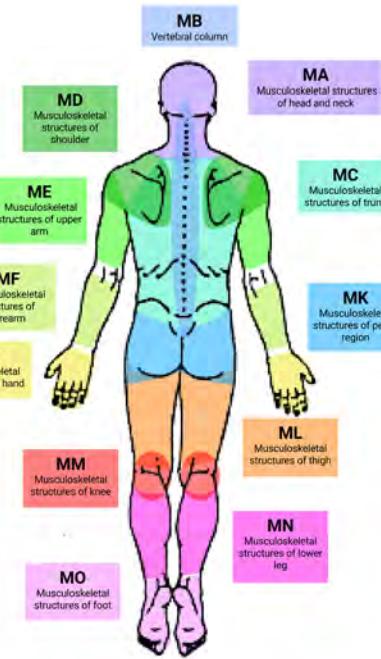
In order to better understand the ICHI code, we have split it into individual parts and visualized them. Because there was no name for the first section, which only concerns the first two letters, we called it "Area".

Interventions on the Musculoskeletal System

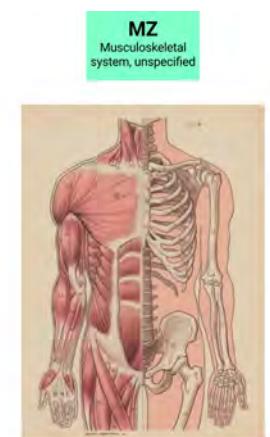
1. Interventions on Body Systems and Functions

10 - Interventions on the Musculoskeletal System

MA Musculoskeletal structures of head and neck	MB Vertebral column	MC Musculoskeletal structures of trunk	MD Musculoskeletal structures of shoulder
ME Musculoskeletal structures of upper arm	MF Musculoskeletal structures of forearm	MG Musculoskeletal structures of hand	MI Musculoskeletal structures of upper limb, unspecified
MK Musculoskeletal structures of pelvic region	ML Musculoskeletal structures of thigh	MM Musculoskeletal structures of knee	MN Musculoskeletal structures of lower leg
MO Musculoskeletal structures of foot	MQ Musculoskeletal structures of lower limb, unspecified		



Source Body Chart black & white: ePhysio App



Visualization of the ICHI classification of the subcategory "Interventions on the Musculoskeletal System". To each code we have assigned a body part or body area and we call this code area "Area".

Source: <https://www.topdoctors.co.uk/medical-dictionary/musculoskeletal-pain>

Source: <https://www.everydayhealth.com/healthy-living/pictures/your-bodys-muscles-bones-and-joints.aspx#0>

https://www.tes.com/lessons/K_2lBrw_6-a6G2w/0-spa-week-1-8-p-muscle-function-1-of-2

<https://www.pinterest.ch/pin/455074737321341293/>

Use Case - Patient with arthrodesis on the right foot



1. Interventions on Body Systems and Functions

10 - Interventions on the Musculoskeletal System

Our fictitious Use Case is a patient with arthrodesis on the right foot. The arthrodesis is a surgical joint stiffening. The mobility in the joint is completely prevented.

Here is the Visualization of the intervention process, with the respective ICHI codes for documentation. First, the patient is examined, for which the physiotherapist takes a anamnesis and tests, these are classified with the particular ICHI codes.

Then the intervention process begins.

Untersuchung des Patienten mit Befund der Gelenksbeweglichkeit

1. Assessment		
Assessment of neuromusculoskeletal and movement-related functions		
Area	Target	Action
MT Functions of joints and bones	MT1 Neuromusculoskeletal and movement related functions	AA Assessment
		ZZ Other and unspecified means
		Evaluating functions of movement and mobility, including functions of joints, bones, reflexes and muscles
		MT1.AA.ZZ

2. Test		
Test of neuromusculoskeletal and movement-related functions		
Area	Target	Action
MT Functions of joints and bones	MT1 Neuromusculoskeletal and movement related functions	AC Test
		ZZ Other and unspecified means
		Using a questionnaire, rating scale or other instrument to test functions of movement and mobility, including functions of joints, bones, reflexes and muscles
		MT1.AC.ZZ

Documentation of an anamnesis with the particular ICHI codes. Color coding see Body Charts.

Dokumentation des Behandlungsverlauf anhand der Behandlungssessions

Mobilisation		
Mobilisation of joint of foot or toes		
Area	Target	Action
MO Musculoskeletal structures of foot	MOJ Joint of foot or toes	PB Mobilisation
		ZZ Other and unspecified means
		Manual therapy technique comprising a continuum of skilled passive movements to the joint of foot or toes. Mobilisation is under the control or consent of the person to whom it is applied.
		Index Terms: Mobilisation of joint of foot or toes, NOS
		MOJ.PB.ZZ

Training		
Training of neuromusculoskeletal and movement-related functions		
Area	Target	Action
MT Functions of joints and bones	MT1 Neuromusculoskeletal and movement related functions	PH Training
		ZZ Other and unspecified means
		Teaching, enhancing or developing skills - of functions of movement and mobility, including functions of joints, bones, reflexes and muscles - through practice
		MT1.PH.ZZ

Documentation of the treatment and training with the particular ICHI codes.

Dokumentation des Behandlungsverlauf anhand der Behandlungssessions

Training

Training of gait pattern

Area	Target	Action	Means
MV Movement	MVG Gait pattern functions	PH Training	ZZ Other and unspecified means



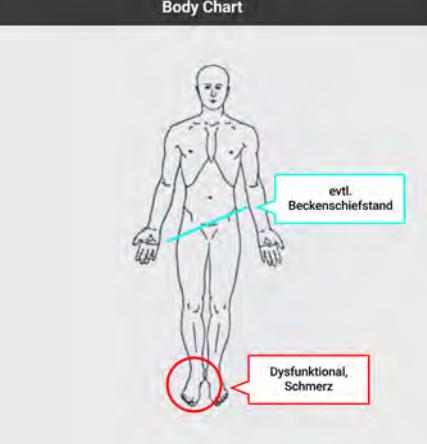



Definition: Teaching, enhancing or developing skills of functions of movement patterns associated with walking, running or other whole body movements - through practice

Index Terms: Biofeedback training of gait
Electromechanical gait training
Gait pattern training

MVG.PH.ZZ

Body Chart



evtl. Beckenschiefstand

Dysfunktional, Schmerz

Documentation of the training with the relevant ICHI code and a body chart. The body chart shows the painful and dysfunctional foot as well as a suspected pelvic obliquity.

Behandlungsverlauf

1. Behandlungstag

MT1.AC.ZZ **Test of neuromusculoskeletal and movement-related functions**

Definition: Using a questionnaire, rating scale or other instrument to test functions of movement and mobility, including functions of joints, bones, reflexes and muscles



MOJ.PB.ZZ **Mobilisation of joint of foot or toes**

Definition: Manual therapy technique comprising a continuum of skilled passive movements to the joint of foot or toes. Mobilisation is under the control or consent of the person to whom it is applied.



2. Behandlungstag

MOJ.PB.ZZ **Mobilisation of joint of foot or toes**

Definition: Manual therapy technique comprising a continuum of skilled passive movements to the joint of foot or toes. Mobilisation is under the control or consent of the person to whom it is applied.



MT1.PH.ZZ **Training of neuromusculoskeletal and movement-related functions**

Definition: Teaching, enhancing or developing skills - of functions of movement and mobility, including functions of joints, bones, reflexes and muscles - through practice



3. Behandlungstag

MVG.PH.ZZ **Training of gait pattern**

Definition: Teaching, enhancing or developing skills of functions of movement patterns associated with walking, running or other whole body movements - through practice



A possible intervention process of the patient divided according to treatment days.

These visualizations helped us to better understand the ICHI code and its parts. And led us to the conclusion that there are different approaches to this classification.

Interview

Seit 10 Jahren Physiotherapeut, Medbase Winterthur (seit 2013), 35-50 Patienten pro Woche, er konzentriert sich auf Schmerzen (chronisch) am Bewegungsapparat (Interessengebiet), Master ZHAW Winterthur, seit 2017 ist am PhD bei der ZHAW (30%)

Erfolg in seinem Beruf bedeutet für ihn einerseits, dass der Patient Schmerzfrei wird. Dies ist ihm sehr wichtig, dass der Patient verstanden hat, warum genau er in der Physiotherapie ist und warum es geht, warum Schmerzen entstehen und was der Patient dazu beitragen kann. Es entsteht ein Patient-Therapeuten Team, sie arbeiten als Team zusammen und die Beziehung befindet sich auf gleicher Ebene, wo sie gemeinsam am Erfolg der Therapie arbeiten und die Schmerzen reduzieren können. Ganz Schmerzfrei werden leider viele nie ganz oder sie werden diese Schmerzen für die nächsten 10-20 Jahre haben.

Am Anfang seiner Laufbahn gab es eher viele unschöne Momente, da man noch nicht vieles weißt und im Studium alles anders war. Und plötzlich wird man mit der Realität konfrontiert und alles ist plötzlich anders wie man es gelernt hat.

Für ihn gab es viele schöne und lustige Momente mit seinen Patienten. Für ihn ist es sehr schön, wenn sich die Patienten bedanken und auch teils emotional werden, da es ihnen wieder besser geht oder wenn sie das erste Mal das Gefühl haben, dass sie jemand wirklich ernst nimmt.

Der Therapeut kann am meisten Einfluss in die Behandlung nehmen in dem er Empathie hat und diese zeigt. Seiner Meinung nach hat man das oder nicht. Man sollte sich in die Situation und den Patienten

hineinversetzen können. Kommunikation ist ein weitere sehr wichtiger Faktor, da der Therapeut dem Patienten in einfacher Form die Therapie und seine Beschwerden erklären sollte. Weiter ist wichtig, dass der Therapeut die Schmerzphysiologie kennt und erklären kann wie der Schmerz entsteht und was dazu beträgt.

Zur Dokumentation:

Viele Physiotherapeuten haben im 25-30 min Zeit für den Patienten. Dies kann stark variieren, je nachdem wo man arbeitet. In der Medbase in Winterthur hat er 30 Minuten Slots, davon sind 25 min Behandlung und 5 min sind für die Dokumentation einge-rechnet. Er dokumentiert normalerweise alles nach der Behandlung, da er voll und ganz für seinen Patienten da sein und sich ganz auf den Patienten einlassen will. Dies geht nicht, wenn er nebenbei noch dokumentieren muss. Vor Allem bei neuen Patienten sitzt er am Abend noch ein Mal hin und schreibt die neuen Befunde genau auf. Da der erste Eintrag der Aufwändigste ist als die restlichen.

Er dokumentiert Analog in einem Dossier, er muss auch alles Dokumentieren für den Fall einer Verschlechterung des Patienten, muss er belegen können, was die Behandlung war. (Rechtsstreit etc.) Dem Patienten geben sie vorgedruckte Formulare mit Übungen, aber auch Zeichnungen mit. (von Hand)

Jetzt mit der Corona Krise, benutzen sie Physitrack (<https://www.physitrack.com/?lang=de>) und können so ihren Patienten über die PhysiApp (<https://apps.apple.com/au/app/physiapp/id1047722007>) personalisierte Übungen schicken. Da wird die Übung erklärt und er kann direkt darunter schreiben, wie oft und intensiv sie die Übung machen sollen. Der

Therapeut kann tracken wann die Übungen gemacht wurden und der Patient kann die Schmerzen eingehen und dokumentieren. Der Therapeut kann darauf direkt antworten und kommentieren.

Die Daten bleiben in dieser Datenbank und er schaut alle 2 Tage rein und dokumentiert die Erkenntnis analog in die Akten.

Grundsätzlich funktioniert der Austausch der Dokumentation, aber es ist etwas ein Papier Chaos mit all den Verordnungen, CD's und Berichten. In ihrem Team gibt es verschiedene Therapeuten die unterschiedliche Sprachen sprechen, aber auch im Deutschen Unterschiedliche Abkürzungen verwenden und darum wird die Übergabe eines Patienten schwierig. Dafür haben sie bei der MedBase ein Extra Formular, welches der Therapeut vor der Über-gabe (Ferien, Abwesenheit etc.) ausfüllen. Da muss der Therapeut die Befunde/Therapie auf 2-3 Punkte runterbrechen und die klar formulieren. Dies hat sich als grosser Vorteil ergeben.

Manchmal hat er vor dieser Krise Übungen mit dem Handy des Patienten aufgenommen oder mit seinem Handy und diese Übung dem Patienten per Mail ge-schickt. Er sieht das als wichtig an, dass die Patien-tten noch genau wissen, wie die Übungen funktionie-ren.

Zur Richtlinien/ Klassifikationen:

Ihm sind alle diese Klassifikationen keinen Begriff, er kannte ICF und ICD, somit ist der Kenntnisstand bei ihm gleich 0. Er hat vor dem Interview dies kurz googlen müssen. (obwohl er ihm Wissenschaftlichen Bereich seinen PhD macht)

Wenn er durch diese App eine schnellere Dokumen-tationsmöglichkeit bekommt, wäre er gewillt diese

Klassifikationen sich anzueignen?

Absolut.

Viele Patienten im Schmerzbereich, sind schwierig in Kategorien zu packen. Weil da viel Unsicherheit herrscht, wie die Situation wirklich ist. Patienten neigen auch ein bisschen zur Katastrophisierung. Es braucht viele Worte, um die Situation wirklich zufassen und zu Umschreiben, oft kann man dies nicht wirklich Kategorisieren. Da es oft sich nicht in die Skala von 0-10 einschränken lässt. Oft ist der Schmerz auch Tagesabhängig. Es gibt auch viel Variabilitäten, dies einzuteilen in gut, mittel und schlecht ist schlicht nicht möglich.

Er schreibt sich viele Zitate von der Patienten auf und gibt die gleiche Wortwahl bei der nächsten Therapie wieder und so fühlen sich die Patienten nicht nur auf den Schmerz reduziert, sondern werden als Mensch gesehen.

In die Dokumentation gehören Basisinformationen wie die Lokalisation des Schmerzes, Schmerzverhalten, Tagesverlauf, Abhängigkeit der Bewegung, Medizinische Befunde, was für Therapien wurden Angewendet, was erwartet der Patient, der Patient wird befragt, was er denkt fehlt ihm und was seine Meinung ist.

Am wichtigsten für ihn sind die direkten Zitate und die motivierende Gesprächsführung. Damit der Patient das Gefühl bekommt, dass er ihm zuhört und mit einer Spiegelung Technik. Er braucht dafür die gleiche Wortwahl, damit die Patienten wissen, dass er Bescheid weiss, dass er sich um sie kümmert und das sie wissen, dass er ihnen voll umfänglich zuhört. Physiotherapeuten entwickeln keine eigenen Therapiemethoden, aber jeder hat seine eigene Art, wie sie das Wissen zusammensetzen.

Dies Komponenten dafür sind verschieden, da auch alles was der Therapeut sagt einen Einfluss auf

die Behandlung und Genesung haben kann. Somit kann jede Therapie bei verschiedenen Patienten ganz anders verlaufen, je nach Informationen die sie erhalten. Der Prozentsatz an Zeit für Gespräche und Therapieformen (manuel, Übungen, etc.) entscheidet jeder Therapeut selber. Dies im Nachhinein nach zu vollziehen, wieviel von was angewendet worden ist, ist sehr schwierig.

Klassifikationen kann man aber schon auch gut vereinbaren, da sie eine Oberkategorie geben. Die vorhin gegebenen Aspekte, werden jedoch schwierig zu Dokumentieren/ ein zu ordnen. (Was hat man wirklich wie und wann gesagt)

Schmerzskala:

Üblich sind Numerische Skalen 0-10 oder 0-100. Es gibt auch die Varianten mit Gesichter, diese Nutzt er aber nicht, da die Gesichter skala weniger gut funktioniert. Ausser bei der älteren Generationen, wo kollative Einschränkungen haben, sind Bilder besser als Zahlen. (Wie oben erwähnt, fühlen sich die Patienten meistens von dieser Skala nicht richtig verstanden und die Schmerzen variieren oft)

Zusammenarbeit mit Ärzten, Chiropraktikern, med. Masseure etc:

Die Zusammenarbeit mit diesen Parteien empfindet er als sehr wichtig. Doch leider gibt es kein gemeinsamer Austausch «Gefäss» oder System. Oft muss er einem Hausarzt anrufen, um mit ihm in Kontakt zu kommen, wenn er Fragen hat etc.

Bei MedBase haben sie ein internes System, wo alle darauf Zugriff haben und die Ärzte und Therapeuten den Verlauf der jeweiligen Behandlungen einsehen können. Jedoch bekommt der jeweilige Arzt oder Therapeut keine Nachricht, wenn etwas an der Patientenakte geändert und hinzugefügt wurde. So muss man hoffen, dass die andere Partei dies sieht und die Nachricht ankommt. Oft muss er dann beim Arzt anrufen für eine neue Verordnung etc.

Wenn auswärtige Akten/Informationen reinkommen, besteht oft ein Problem mit den Zugangscode um die Informationen anzuschauen oder die richtigen Programmen etc. (z.B. MRI Bilder)

Ein zentrales Patienten Datensystem wäre ein Traum. Eine einheitliche Krankenkasse auch.

Body Charts:

Für ihn haben 3D Body Charts keinen Mehrwert.

Was er eine sehr gute Methode findet sind die Pain Drawing Methode (Niklaus Egloff) für die Patienten. Dabei bekommen sie Zeichnung von einem Körper von vorne, hinten und den Seiten und können dort selber ihre Schmerzen kennzeichnen und beschreiben. Dabei erfährt der Therapeut sehr viel, was er so in einem Gespräch oft nicht erfährt. Mit Blitzen, können Patienten, die ihre ganze Seite Schwarz angemalt haben, das dieser Patient seit 20 Jahren an Schmerzen leide und das nur noch als Surreal empfindet.

Eine Patientin hat Tränen gemalt oder jemand hat beschrieben, dass der Schmerz sich anfühlt, wie kaltes Wasser welches runterläuft. (Bemerkung von mir: ich kenne stechende und brennende Schmerzen, z.B. bei der medizinische Massage)

Diese Methode wird nicht standardmäßig angewendet und meistens hat man auch keine Zeit dafür. Am Meisten würde dies Sinn machen, wenn der Patient dies vor der Therapie machen könnte und er würde hier einen sehr grossen Mehrwert sehen.

Klassisch wird Schmerz sonst so beschrieben: der Bereich (z.B. Schulter), Schmerzskala (z.B. 4 von 10), Art des Schmerzes (z.B. stechend, dumpf, taub ...), auf der Bodychart wird einfach die Region angemalt (Therapeut macht das)

(Aus dem Interview mit F. P., 7.5.2020. Niedergeschrieben und notiert von D.S.)

Card Sorting Interviews



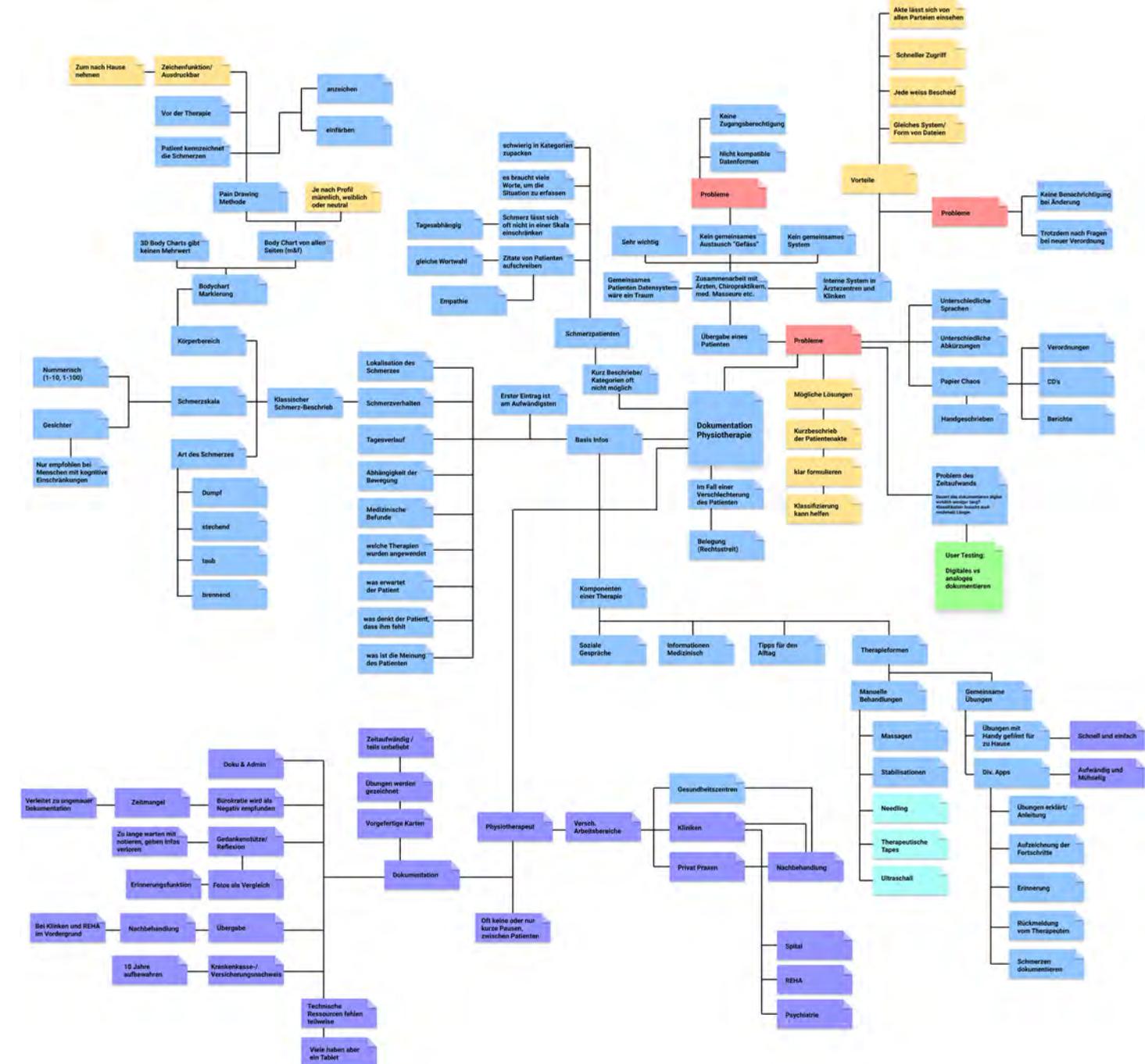
**Fragen /
dafür müssen
Lösungen
gesucht
werden**

Probleme / wichtige Punkte für weiterarbeit

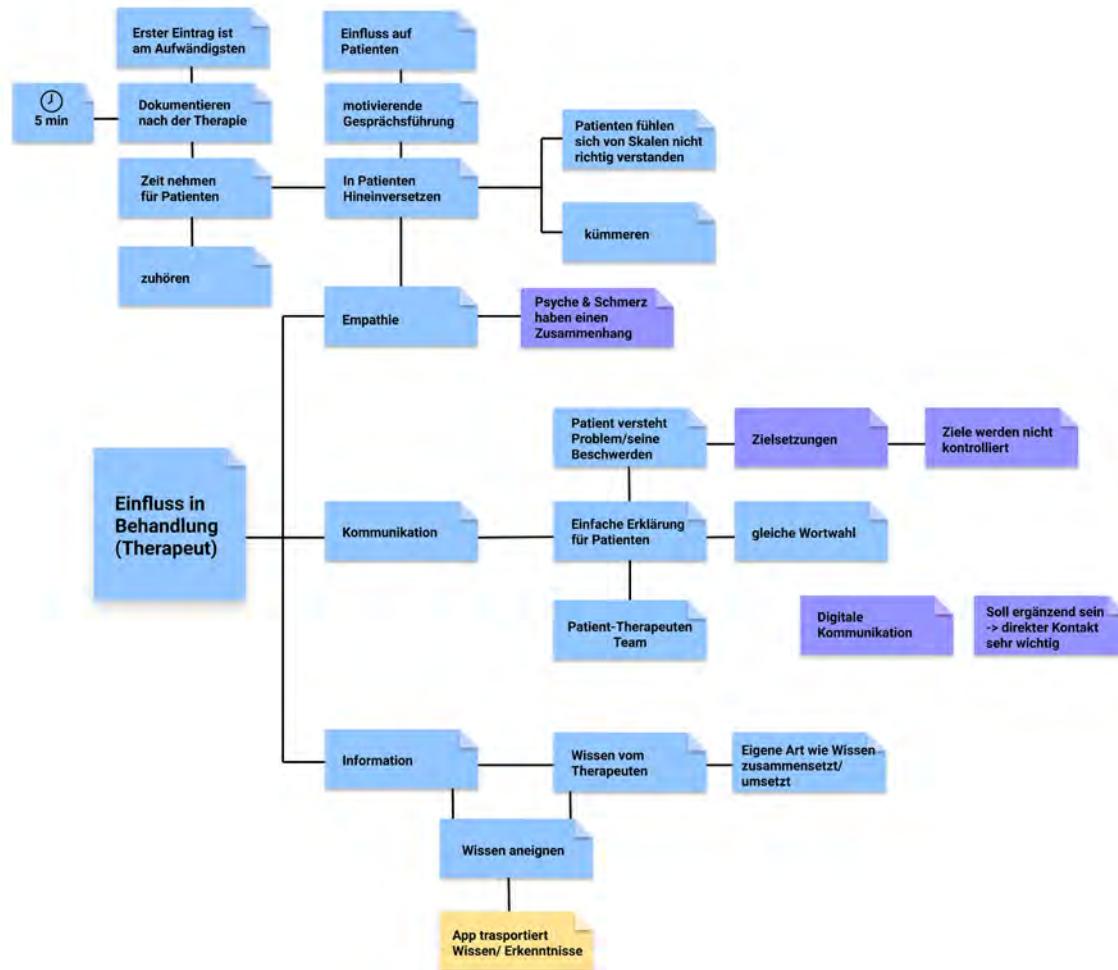
Funktionen / Lösungsansätze

We analysed the interview with our interview partner in detail and combined the aspects with the cardsorting procedure into a mind map in order to better understand the work of the physiotherapists and their documentation procedures.

First problems, but also solutions have been found. With the notes of our fellow students from their interviews we have added to the tree.



Card Sorting Interviews

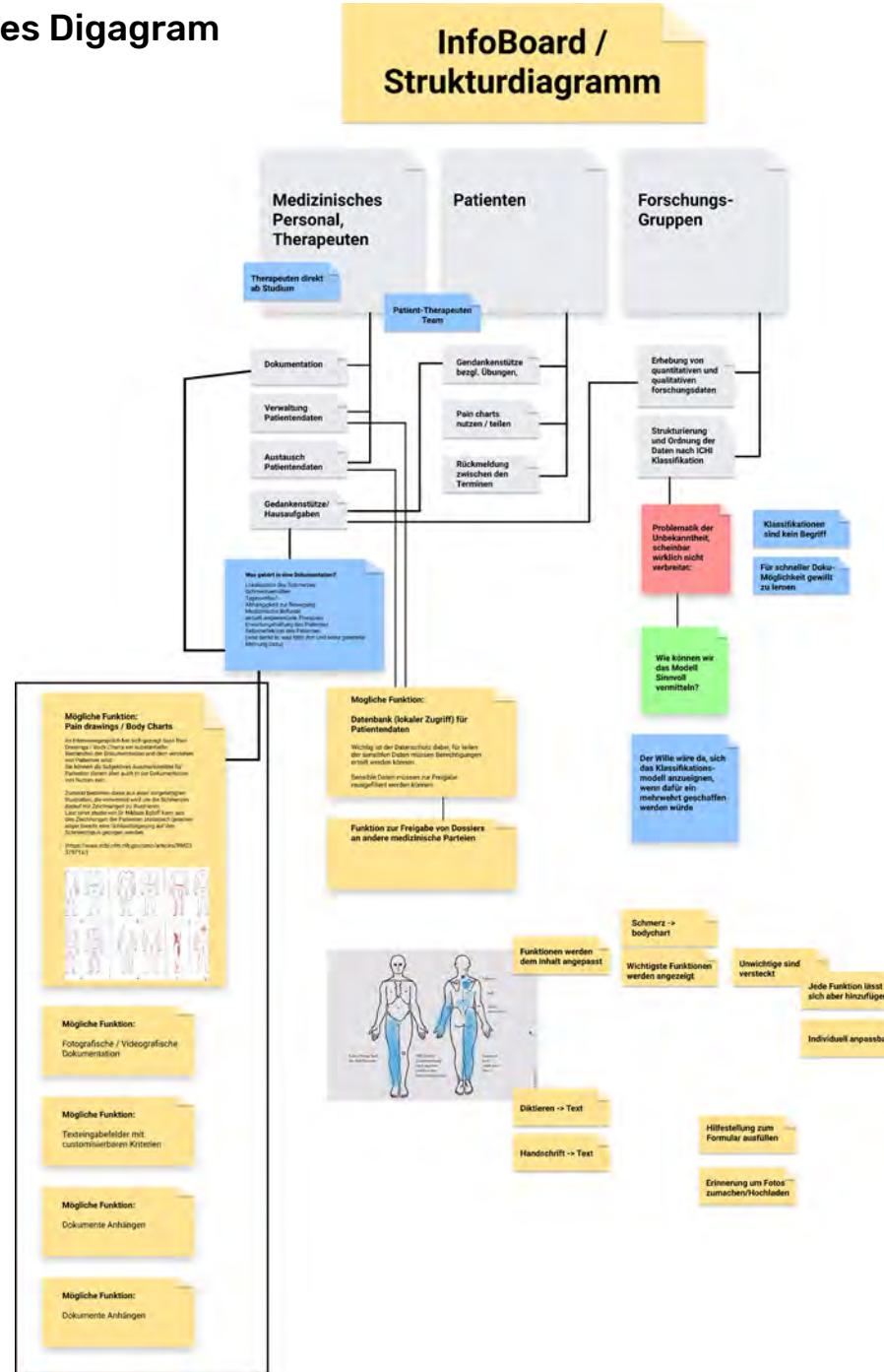


In the interview we also heard about three aspects that influence therapeutic treatment. Empathy, communication and information. Empathy needs a therapist to put himself in the patient's shoes and communication is an important factor in therapy. So that the patient understands his complaints. The information includes, for example, that the therapist knows the physiology of pain and can explain to the patient how the pain arises and what is involved.

This knowledge led to the fact that we offer the possibility to write texts in our app and integrate a look-up function.

It is also possible to interrupt the documentation at any time and to edit aspects and add more at any time.

Structures Digramm



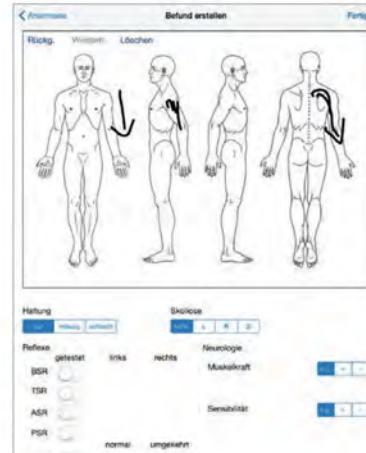
For us, three categories of stakeholders make sense for the success of this app. These are first and foremost the users of this app, the medical staff and especially the physiotherapists. The patients should be able to benefit from this app in the long run. The research group only benefits from the generated data if it offers added value to the users and if they want to use this service.

This added value is achieved if the app covers all aspects of the therapists, including administration, learning and reference possibilities and the possibility to provide their patients with exercises and information. But also to receive data from patients and other medical parties.

What else is already there?

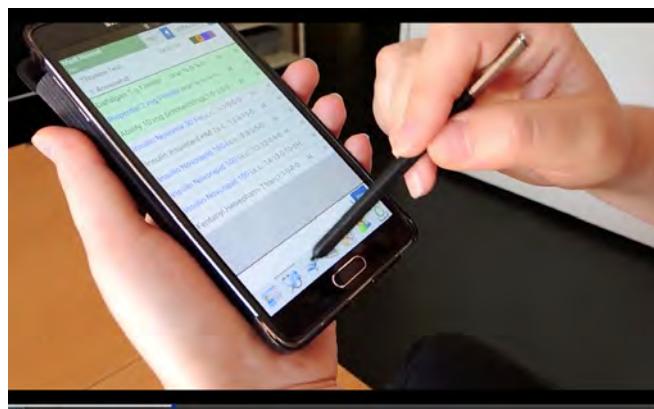
A self-developed documentation system with tablets for physiotherapists. (Praxis RehaZeno)

This screenshot shows a digital form for patient history. It includes fields for 'Sport' (Sport), 'Beruf' (Occupation), 'Aktuelles Problem' (Current Problem), 'Auslösender Faktor' (Triggering Factor), 'Sonstige Anamnese' (Other History), and 'Schmerzen bei:' (Pain during: Schlucken, Husten, Nasen, Pressen, Inspiration). There are also sections for 'Krankheiten' (Diseases), 'Unfälle' (Accidents), 'Operationen' (Operations), 'Röntgen/MRI' (X-ray/MRI), and 'Medikamente' (Medicines). A note at the bottom reads 'Anamnese. | L'anamnèse.'



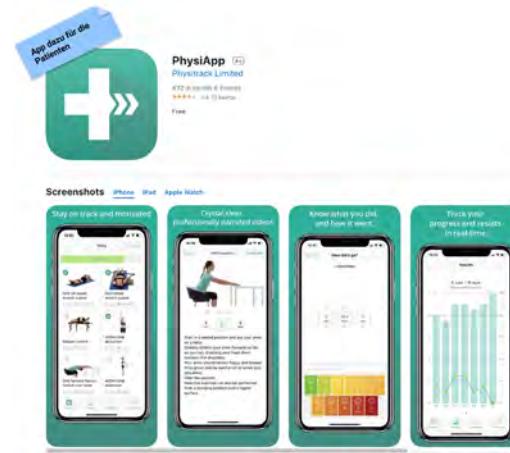
www.rehazeno.ch/wp-content/uploads/2015/05/physioactive_02_2105_ipad.pdf

Care Coach (Care application)



www.aargauerzeitung.ch/mediathek/videos/1_jv2nap76

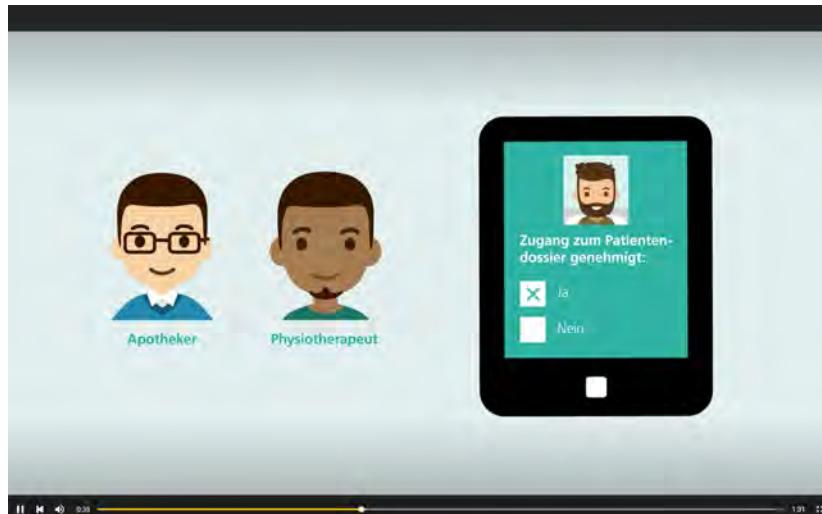
A health database where physiotherapists can send personalised exercises using PhysiApp.



There the exercise is explained and the therapist can write directly below how often and how intensively the patients should do the exercise. The therapist tracks when the exercises were done and the patient can enter and document the pain. The therapist is able to answer and comment directly.

What else is already there?

Das elektronische Patientendossier (EPD) -
The electronic patient file

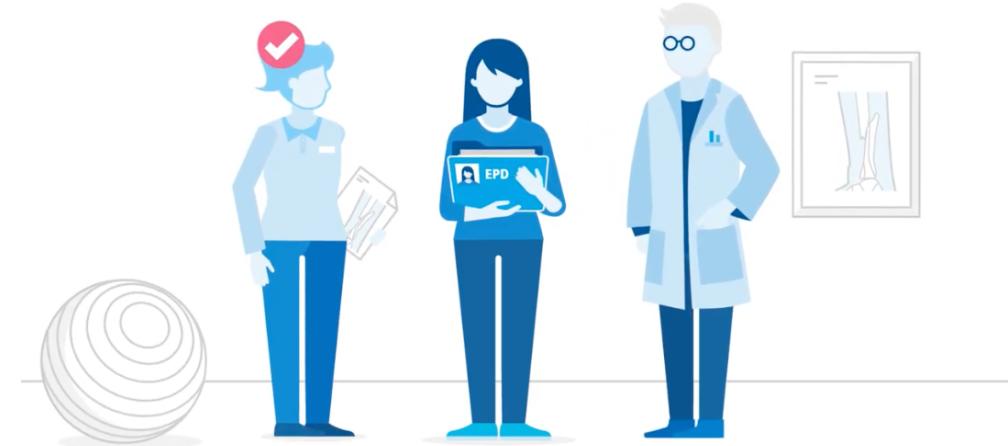


www.post.ch/de/geschaeftsloesungen/e-health/elektronisches-patientendossier

What is the EPD?

The electronic patient file (EPD) is a collection of personal documents containing information about your health. Via a secure internet connection, this information can be accessed at any time by both you and your healthcare professionals. You yourself decide who may view which documents and when.

www.patientendossier.ch/de/bevoelkerung/kurz-erklaert



www.patientendossier.ch

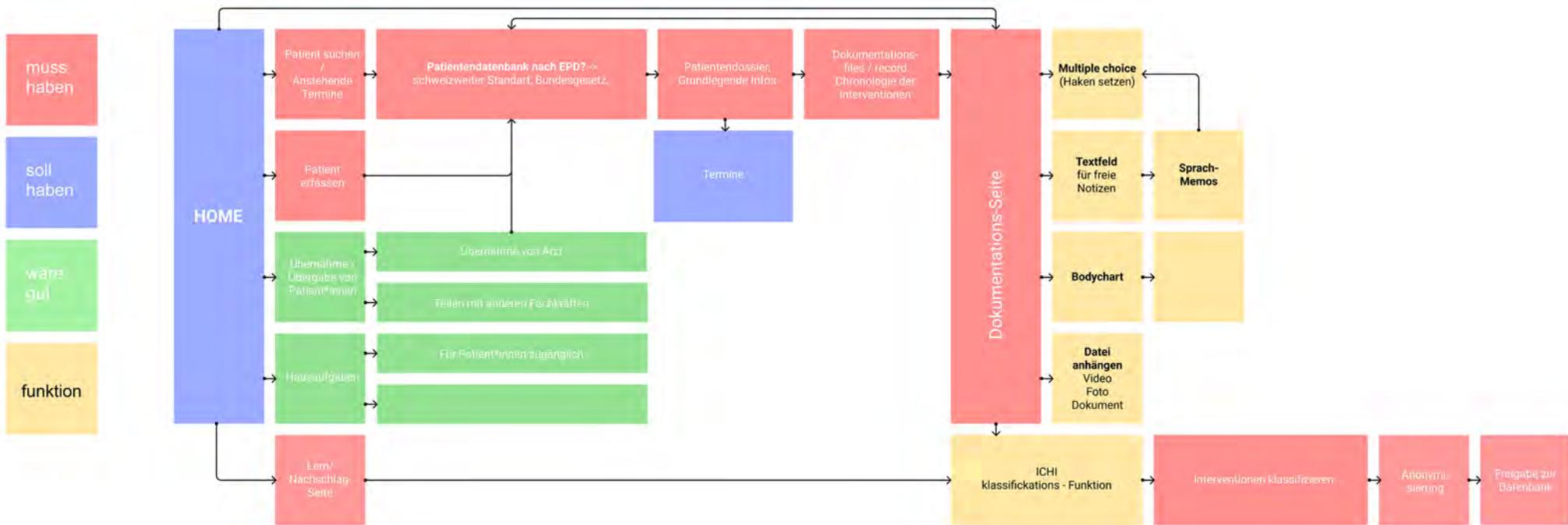
The advantages of a personal EPD at a glance.

- Patients have access to their personal medical data at any time.
- In addition to healthcare professionals, patients can also store documents important to them (e.g. living wills or self-measured data) in their personal EPD.
- Patients decide who has access to their personal EPD.
- In a medical emergency, access to all important patient data is guaranteed.
- Treatment quality and security increases with the EPD, since all health professionals involved in a treatment always have the most up-to-date treatment data at hand.

www.post.ch/de/geschaeftsloesungen/e-health/elektronisches-patientendossier

Define Phase

First information architecture



Administration

Behandlungsgeschichte
Status der Behandlung

Reflektion / Auswertung

Welche Interventionen werden mit welchem Ziel angewandt
Erfolg der Interventionen?
Abhängigkeit der Bewegung

Diagnose & Evaluation

Fragenbögen Für Patienten
Hauptproblem
Krankheitsgeschichte
Was erwartet der Patient?
Lokalisation des Schmerzes
Hypothese
Tagesverlauf
Bewegungsverhalten des Patienten
Tagesverlauf

Our first thoughts on the architecture of the app, with the most important factors and aspects. Based on this we started with the wireframe sketches.

Wireframe sketches - first ideas collection

Search function as central element, dashboard as menu, quick access.

Annotations on the left sketch:

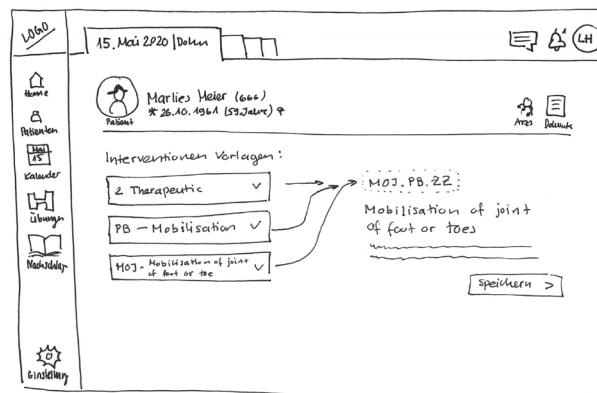
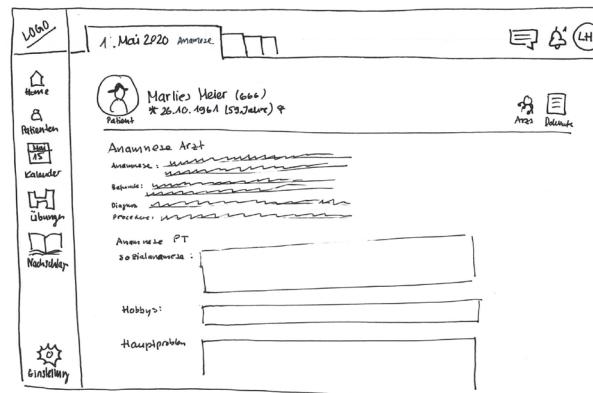
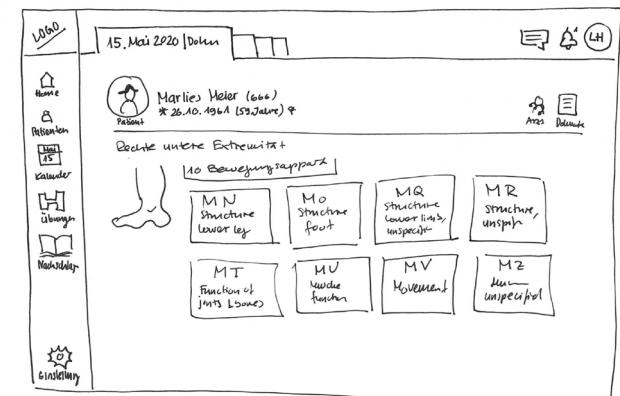
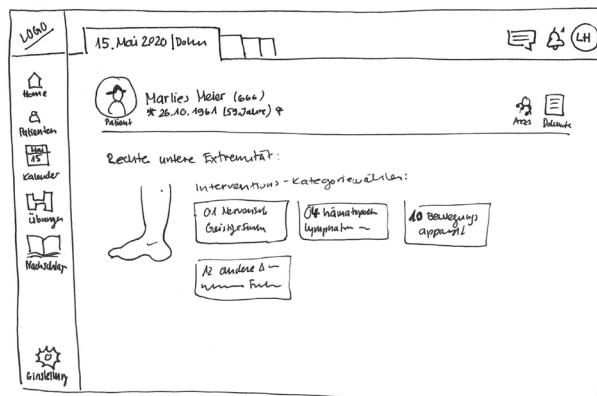
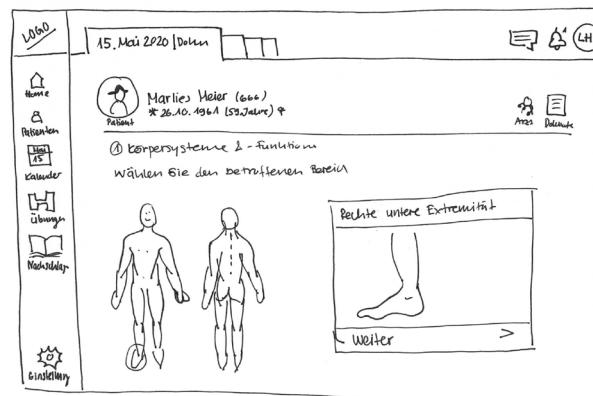
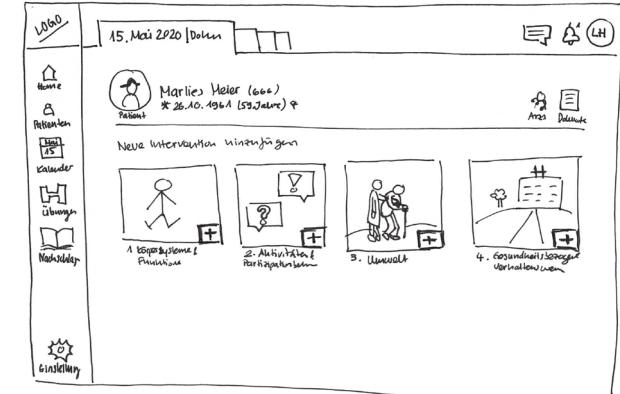
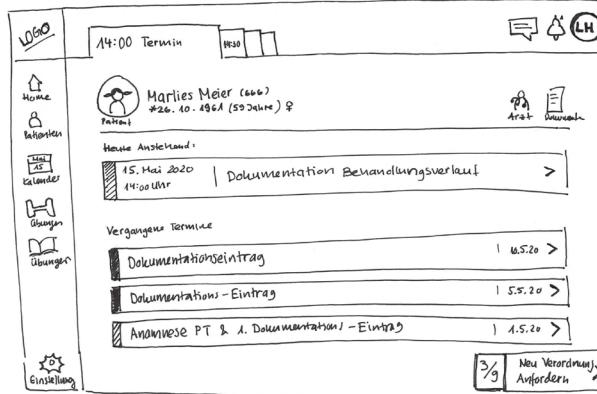
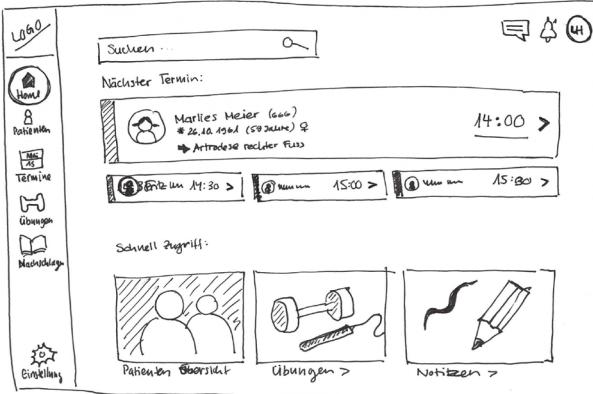
- Dashboard → ist aufgeklappt bei Startzeit
- Wichtigste Überpunkte →
- einstellungen App bestehend →
- suche
- Einstellung expandieren
- Günstiges über Suchfunktion
- Kalender
- Notizen
- Patient
- zusätzlich zugreif auf Patient

Annotations on the middle sketch:

- Patient index >
- Termine heute >
- Übergabe? >
- person >
- Übungen >
- Lernw& Nachschlagen >
- Einstellungen >
- Erstellen +

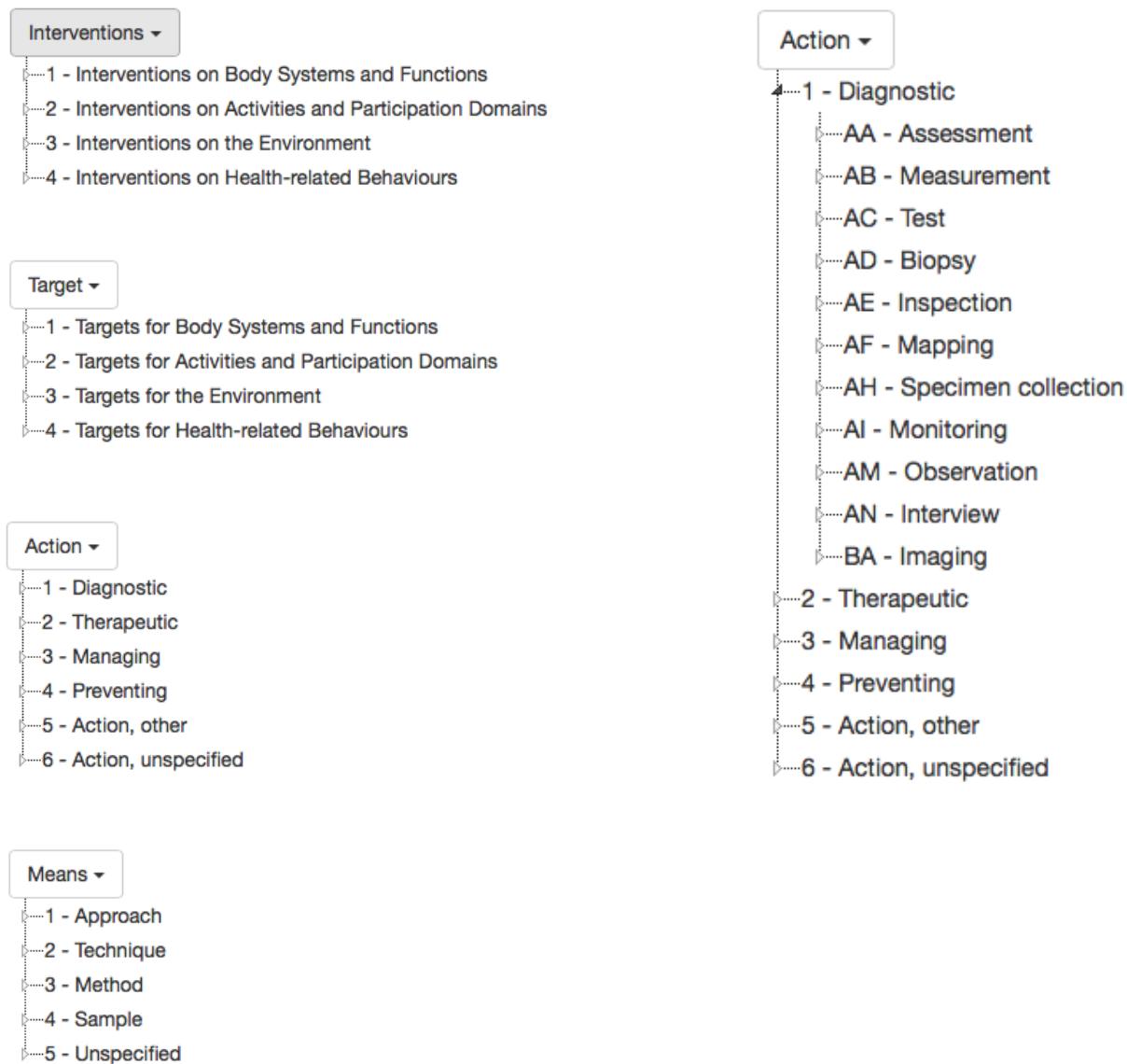
First access to the documentation, via the next appointment. Quick access to the most important functions.

Wireframe sketches - Sequence of a documentation with an approach via the four ICHI sections



Already while sketching out, we realized that the documentation about the four sections "Interventions on Body Systems and Functions", "Interventions on Activities and Participation Domains", "Interventions on the Environment", "Interventions on Health-related Behaviours" does not work, because the way becomes very long and these sections will only confuse the user.

New way to approach the ICHI



Printscreen: <https://mitel.dimil.uniud.it/ichi/>

On the ICHI platform (<https://mitel.dimil.uniud.it/ichi/>), the classification can be approached through interventions, with its four sections, or through the three axes of target, action and means, in order to reach the desired ICHI stem code at the end.

In the process of our work, we became aware that the entry via Action with the classifications Diagnostic and Therapeutic seemed to be the most reasonable. For the user these terminology is already known and it is classified according to the stage of documentation.

Documentation starts with the Diagnostic, with the anamnesis and tests and continues with the Therapeutic measures.

The ICHI contains a lot of stem codes and also Target, Actions and Means, which a physiotherapist will certainly never use. Therefore the ICHI has to be thinned out from the beginning.

First wireframes

Wireframe 1: Home Screen

Wireframe 2: Next Appointments

Wireframe 3: Documentation

Wireframe 4: Patient Profile - Meier Marlies

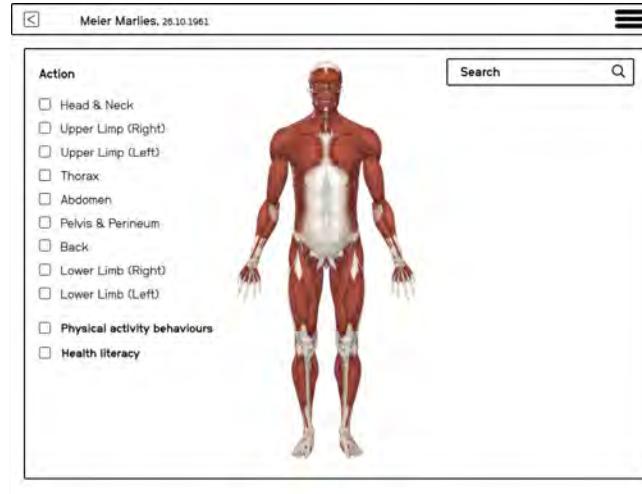
Wireframe 5: Body Map

Wireframe 6: Appointment Grid

Wireframes try outs

Meier Marlies, 26.10.1961

Diagnostic	Therapeutic	Managing	Preventing	Action, other	Action, unspecified
F	FB - Division				
	FC - Release				
G	GA - Destruction				
J	JA - Irrigation				
	JB - Drainage				
	JC - Dialysis				
	JD - Removal of internal device or foreign body				
	JE - Extraction				
	JF - Delivery				
	JG - Debridement				
	JH - Procurement				
	JI - Excision, local				
	JJ - Excision, partial				
	JK - Excision, total				
	JL - Excision, extended				
	JN - Amputation				



Meier Marlies, 26.10.1961

Right foot

Search

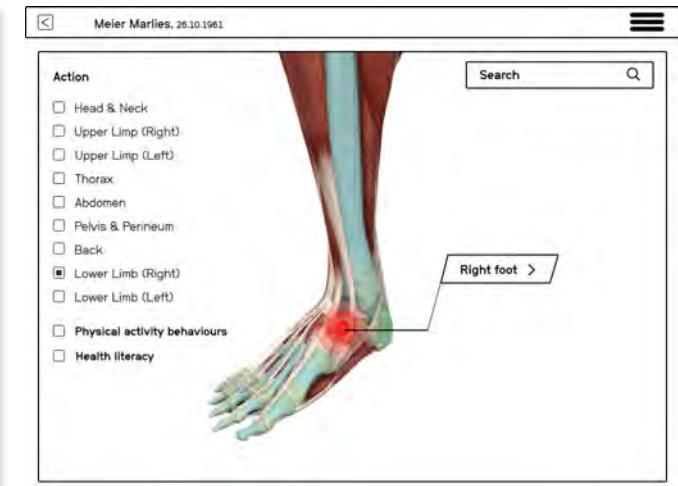
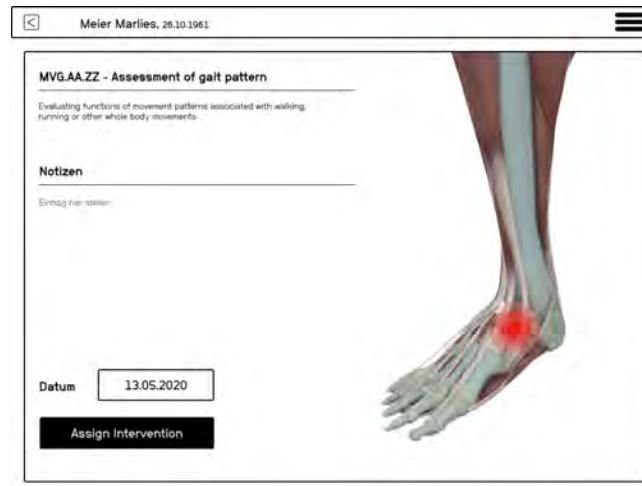
Movement	Musculoskeletal system, unspecified	Musculoskeletal structures of foot	Muscle functions	Musculoskeletal structures, unspecified
Functions of joints and bones				

Meier Marlies, 26.10.1961

Right foot

Search

Movement	Musculoskeletal system, unspecified	Musculoskeletal structures of foot	Muscle functions	Musculoskeletal structures, unspecified
Motor reflex functions	Involuntary movement reaction functions	Control of voluntary movement functions	Control of voluntary movement functions	Gait pattern functions
Movement functions	Involuntary movement functions			
Functions of joints and bones				



Wireframes try outs

Four wireframe prototypes for a mobile application interface are displayed in a 2x2 grid.

Top Row:

- Left:** Shows a list of diagnostic codes under the "Diagnostic" tab. The list includes: AA - Assessment, AB - Measurement, AC - Test, AE - Inspection, AF - Mapping, AM - Observation, BA - Imaging.
- Right:** Shows a list of therapeutic interventions under the "Therapeutic" tab. The list includes: PH - Training, PN - Advising, PP - Counselling, RC - Emotional support, SB - Acupressure, SC - Stimulation, SD - Hyperthermy, SE - Hypothermy, SI - Preparation, SP - Acupuncture, SQ - Moxibustion, SR - Cupping, SO - Removal.
- Far Right:** Shows a full-body human musculature diagram with various intervention points highlighted in red.

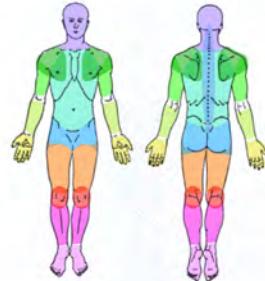
Bottom Row:

- Left:** Shows a leg musculature diagram with a yellow circle highlighting a specific point on the lateral side of the right foot.
- Right:** Shows a list of intervention categories: Interventions on Body Systems and Functions, Interventions on Health-related Behaviours, Interventions on Activities and Participation Domains, and Interventions on the Environment.
- Far Right:** Shows a leg musculature diagram with a yellow circle highlighting a specific point on the lateral side of the right foot.

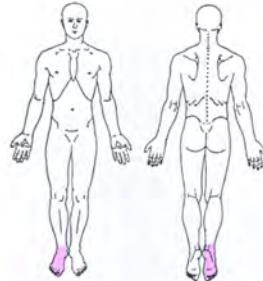
Develop Phase

Steps through the documentation - first thoughts

1 Betroffener Körperteil anwählen



2 Betroffener Körperteil angewählt



3 Betroffener Körperteil ist angewählt



- Action können jetzt ausgewählt werden
- + Assessment (schon vorangewählt)
 - + Testen (div)
 - + Mobilisation (div)
 - + Training (div)

4 Betroffener Körperteil angewählt/Action ausgewählt



- Gewähltes Action-Tool-Kit:**
- Assessment (schon vorangewählt)
 - Testen (div)
 - Mobilisation (div)
 - Training (div)

Template für Doku-Formular auswählen

- + Standard allgemein (schon vorangewählt)
 - + Spezifisch Rücken
 - + Spezifisch Knie
 - + Spezifisch Schmerz
- + Eigenes Template erstellen

ICHI Code im Hintergrund wird weiter reduziert

Nicht mehr relevante Bereiche fallen weg

5 Dokumentations Formular (Beginn der ersten Doku mit Anmnesis)



- Gewähltes Action-Tool-Kit:**
- Assessment (schon vorangewählt)
 - Testen (div)
 - Mobilisation (div)
 - Training (div)
- Gewähltes Template:**
- Standard allgemein

"Reizwörter" stehen zur Auswahl beim Eintippen (Formular)

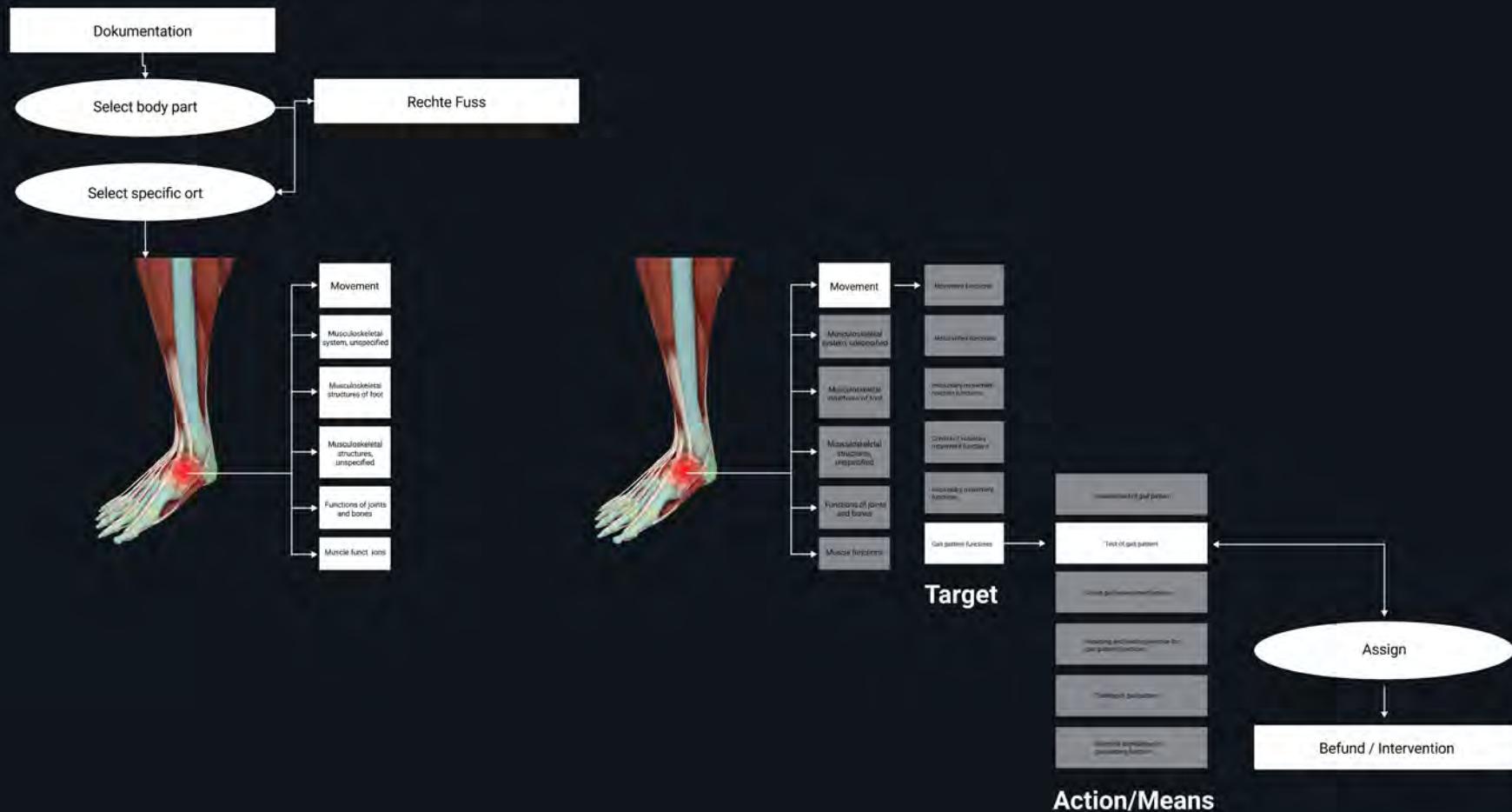
- | | |
|----------------|-----------|
| + Depression | + Schmerz |
| + Mobilisation | + Test |

"Reizwörter" werden mit dem ICHI Code verbunden

Here we thought about the steps of documentation in connection with the ICHI code. Since it makes sense for us to limit the range first, the user selects the affected body area(s). This reduces the ICHI code in the system. In the next step the actions are selected and then the template.

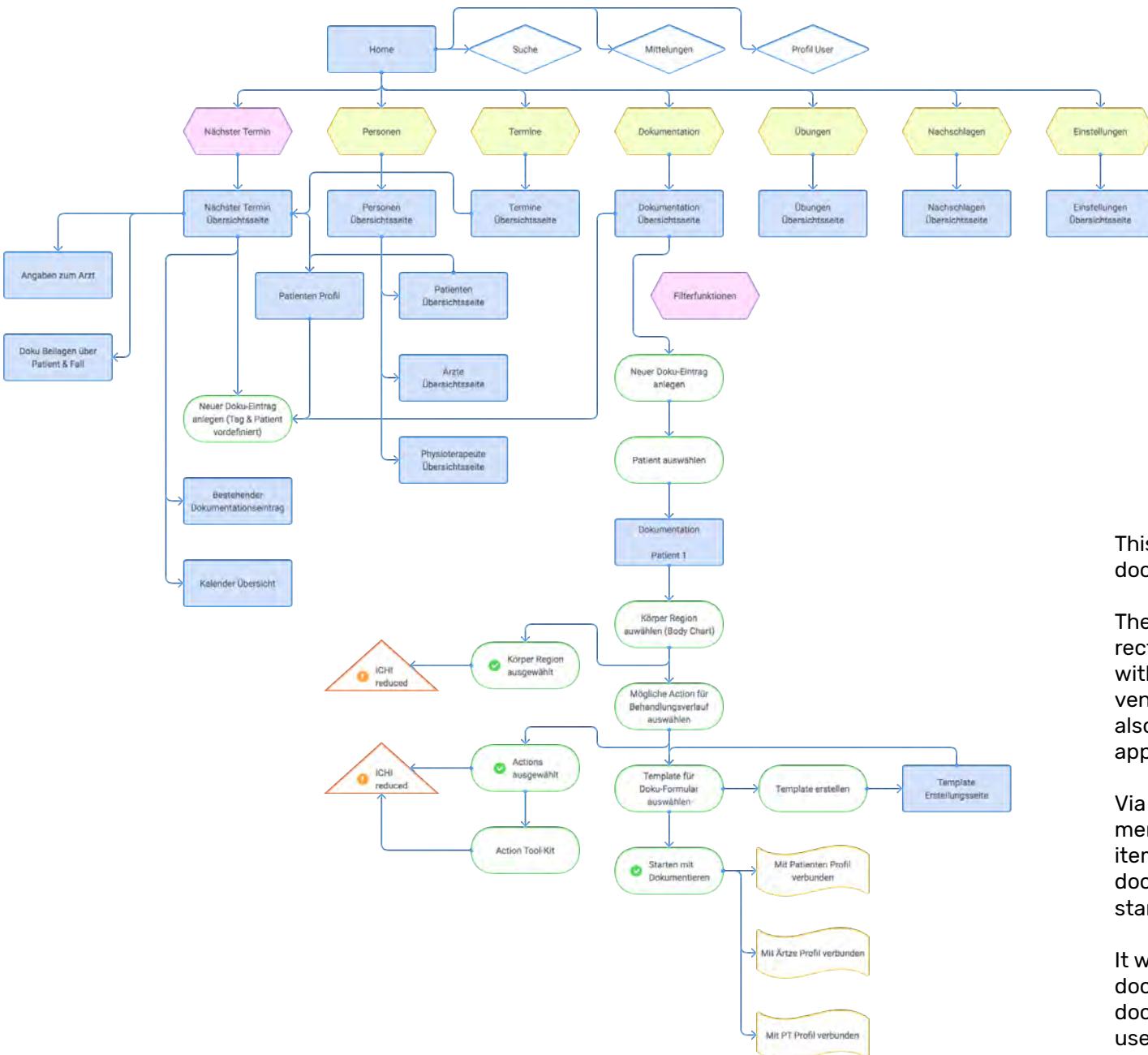
A template makes a lot of sense in our eyes, because we learned in the interviews that every physiotherapist approaches the documentation and treatment a little bit differently. Preset templates can be selected, each user can also create his own individual template and use it again and again. By selecting the template the ICHI is further reduced. In the next step we originally thought of keywords, which are linked to a respective stem code and are therefore directly classified.

Patient mit Arthrodese am rechten Fuss



A visualization of a further possible documentation process.

Flow Chart - different ways lead to documentation



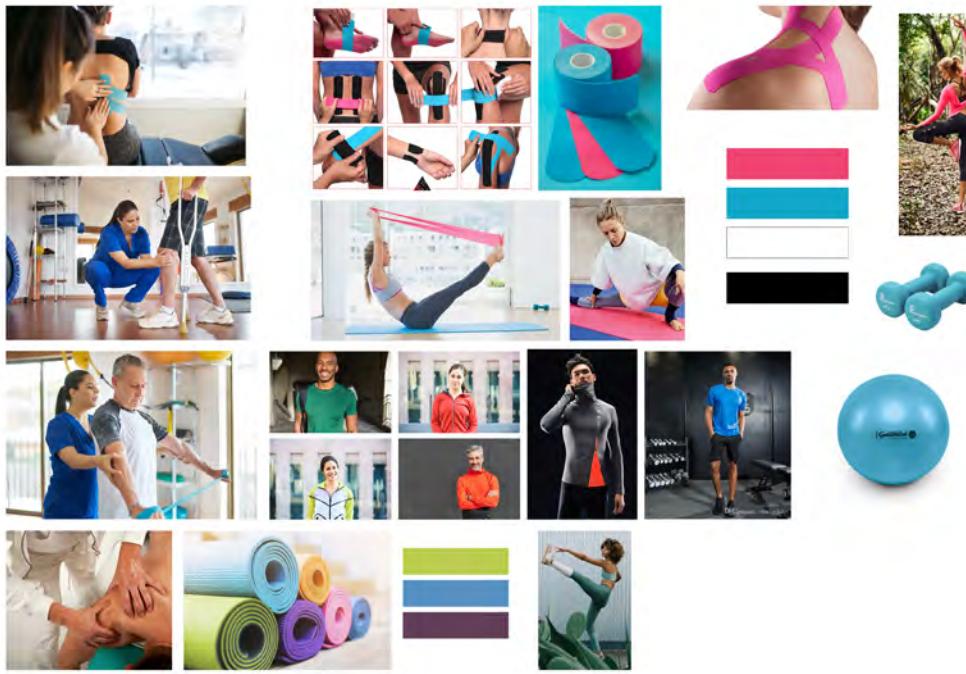
This flowchart shows the different ways to start a documentation.

The quick access “Next Appointment” takes you directly to the overview page of the next appointment with information about the patient and the intervention process. The menu item “Appointments” also takes you directly to the overview page “Next appointment”.

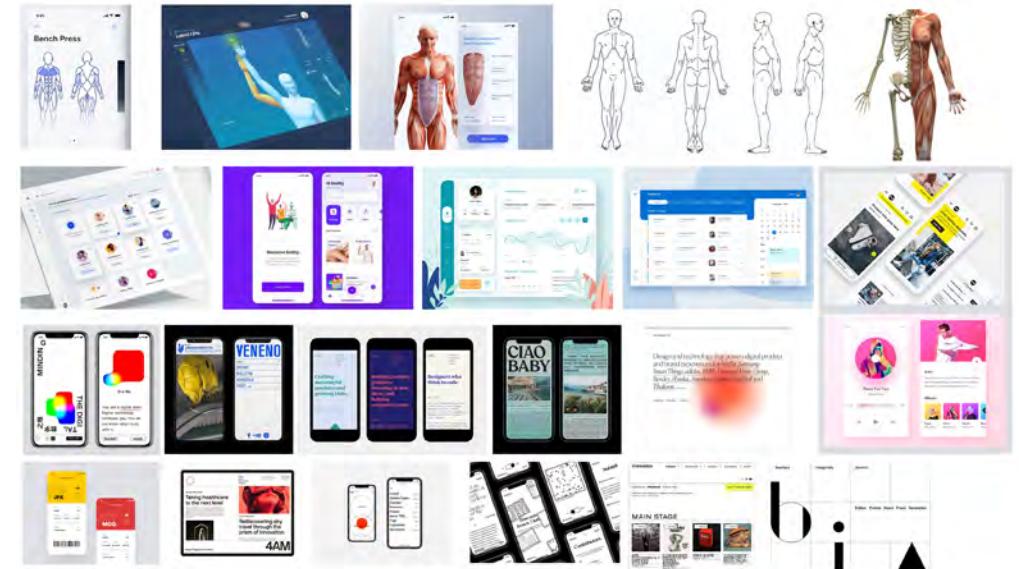
Via the persons overview, you can access the documentation via the patient profile and via the menu item “Documentation” you can directly start a new documentation. Here you assign the patient before starting the documentation.

It was important to us to enable different ways of documentation, because every user approaches the documentation differently. This was confirmed in the user test.

Moodboards

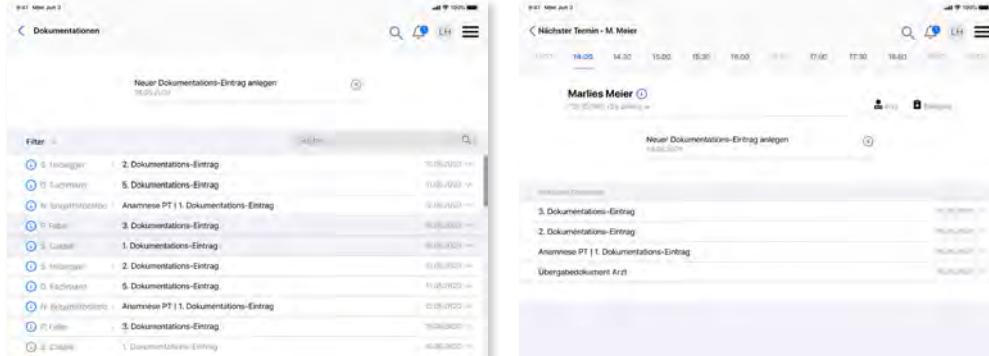


Moodbard regarding physiotherapy, therapy material and sportswear. For the analysis of the colour worlds.



Moodbard regarding bodycharts, various app trends and color schemes.

User Testing



Some screens of the wireframe, with which we made the user tests.

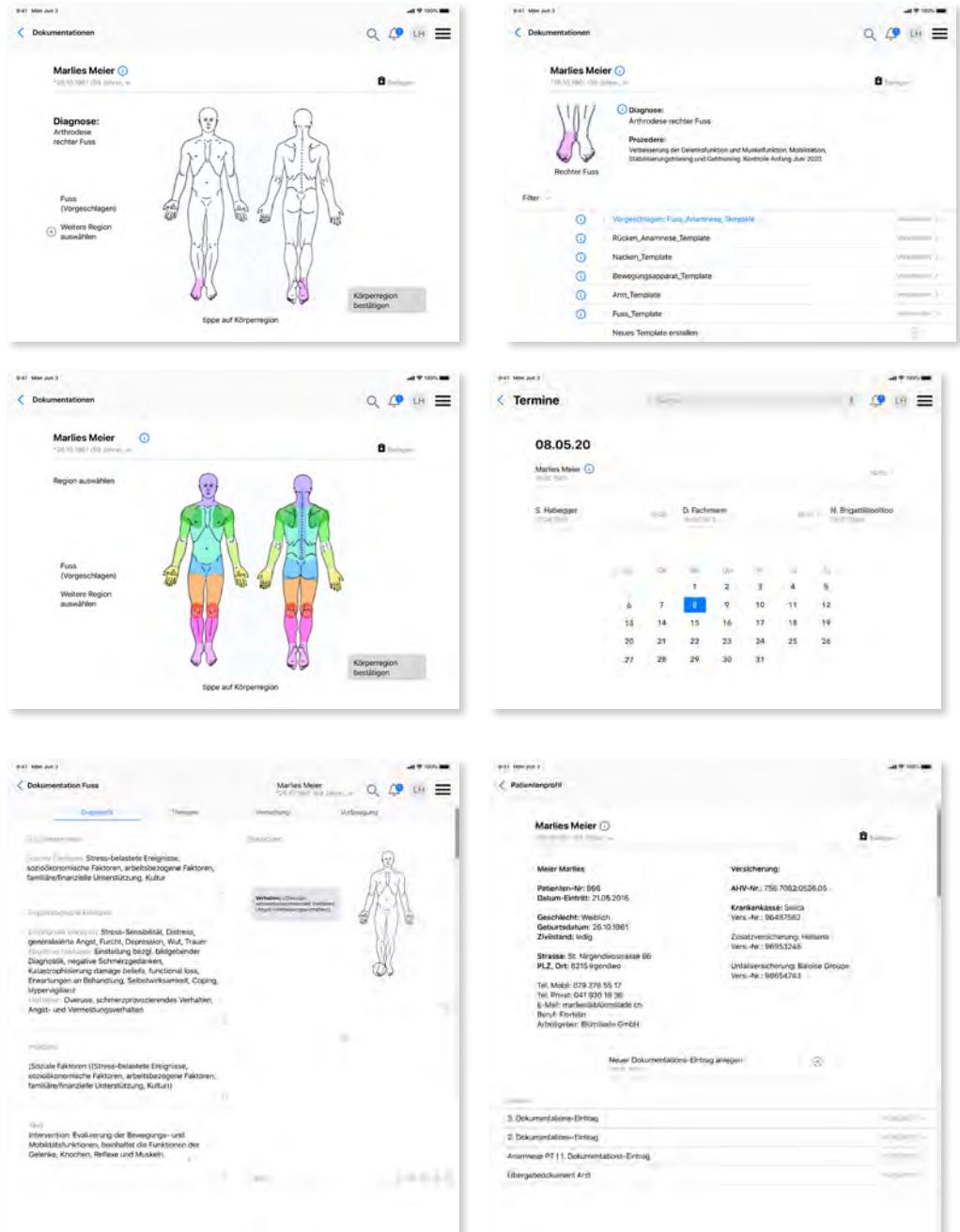
We have accomplished four user tests. Due to the Covid-19 situation, we could do two of them only via zoom, which worked very well.

We had the first test with our interview partner and we tested the wireframe on him. The main goal was to start the documentation and find the way to get there. He pointed out missing elements in the documentation and gave us many good tips.

We had the second test the same evening and there we could already make some adjustments. This time our test person chose a completely different way and pointed out some more important things to us. In a short interview afterwards, she told us about the classification methods of the ICF, which she uses in the hospital where she works.

It was a good decision for us to test the user tests in wireframe status. Because this topic is so complex and individual, it makes sense to test the basic structure first, before you go into design.

A few days later, we were able to test a more advanced prototype with two test persons. This time, one of us was able to do the test on site with the iPad.



Wireframes after the adjustments

The wireframes show the following stages of the application's development:

- Top Row:**
 - Left: Diagnosis entry screen for 'Arthrodese rechter Fuß' (Right ankle fusion) with a full-body musculoskeletal diagram.
 - Middle: Appointment selection screen for 'Marlies Meier' at 14:00.
 - Right: Appointment details screen for 'Nächster Termin - M. Meier' at 14:00, showing a right leg diagram.
- Second Row:**
 - Left: Documentation screen for the right foot with a 'Fuss (Vorfallschlagen)' note and a full-body diagram.
 - Middle: Documentation screen for the right foot with a 'Diagnose' note and a full-body diagram.
 - Right: Documentation screen for the right foot with a 'Schmerzen aufgrund Verletzung der Knochen' note and a right leg diagram.
- Third Row:**
 - Left: Documentation screen for the right foot with a detailed 'Subjektiver Befund' section and a full-body diagram.
 - Middle: Documentation screen for the right foot with a graph showing movement amplitude and a full-body diagram.
 - Right: Documentation screen for the right foot with a 'Überprüfung von' (Assessment of) section and a full-body diagram.
- Fourth Row:**
 - Left: Documentation screen for the right foot with a 'Gesamtaufsicht' (Overall view) and a full-body diagram.
 - Middle: Documentation screen for the right foot with a 'Gesamtaufsicht' and a graph showing movement amplitude.
 - Right: Documentation screen for the right foot with a 'Gesamtaufsicht' and a detailed 'Bewegung' (Movement) section.
- Fifth Row:**
 - Left: Documentation screen for the right foot with a 'Gesamtaufsicht' and a detailed 'Bewegung' section.
 - Middle: Documentation screen for the right foot with a detailed 'Bewegung' section and a full-body diagram.
 - Right: A separate 'Intervention Hinzufügen' (Add Intervention) modal window.
- Sixth Row:**
 - Left: Documentation screen for the right foot with a 'Gesamtaufsicht' and a detailed 'Bewegung' section.
 - Middle: Documentation screen for the right foot with a detailed 'Bewegung' section and a full-body diagram.
 - Right: A separate 'Funktion der Bewegung' (Function of Movement) modal window.

After the first two user tests we have further developed the wireframes, here a few screens.

Deliver Phase

Design Moodboard

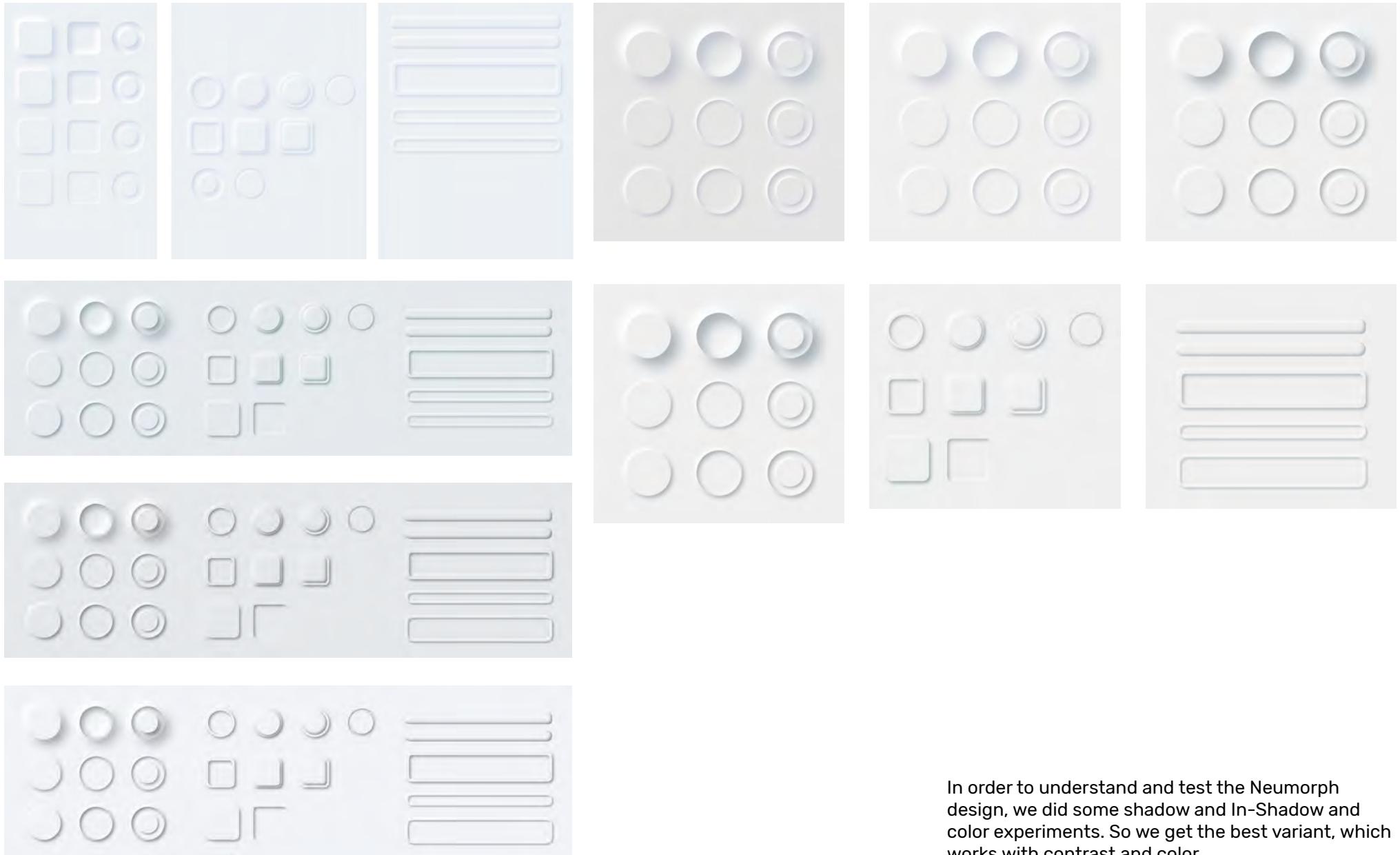


Braun Designtradition, Medizinisches Equipment, sauberkeit, kombinierbarkeit mit «neumorphism»

Runde Gestaltungselemente / Knöpfe,
reduziert, striche, skalen,
verläufe, feine haarlinien, pfeile
Akzidenz Grotesk / Folio?

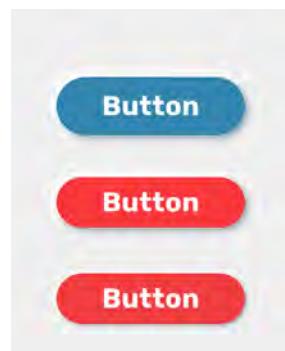
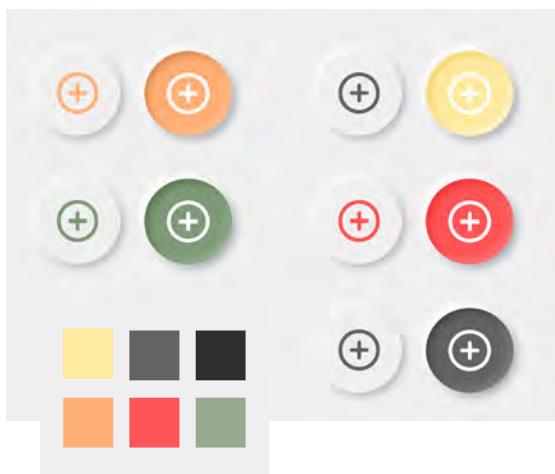
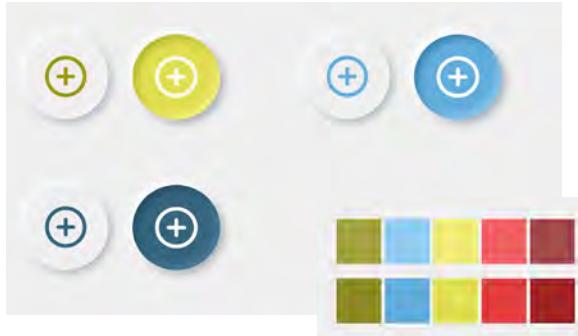
Moodboard regarding end design. Medical equipment, cleanliness, brown brand design, colour scheme. In connection with the design trend Neumorphism.

Neumorph Design Tests



In order to understand and test the Neumorph design, we did some shadow and In-Shadow and color experiments. So we get the best variant, which works with contrast and color.

Neumorph Design Tests



We have created individual elements design and on the shadows and in shadow effects. Here with still darker background.

The examination of the fonts

H1: Rubik, Medium, 24/30pt, +1.75

Marlies Meier, 19.05.1961

H2: Rubik, Medium, 16/20pt, +1

Marlies Meier, 19.05.1961

H3: Rubik, Regular, 16/20pt, +1 (767676)

Marlies Meier, 19.05.1961

B1, Rubik Regular 16/20pt, +1: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich. «Sie möchte einfach wieder laufen und ein normales Leben führen können»

B2, Rubik Regular 14/18pt, +1: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich. «Sie möchte einfach wieder laufen und ein normales Leben führen können»

B2, Rubik Regular 17/23pt, +1, (0271EA):
Motorradunfall, Sprunggelenk zerstört,
Arthrodese Sprungelenk für Heilung, starke
Schmerzen durch Belastung. Alltägliche Dinge
fallen schwer, bewegen ist fast nicht möglich.

B2, Rubik Regular 17/23pt, +1, (767676):
Motorradunfall, Sprunggelenk zerstört,
Arthrodese Sprungelenk für Heilung, starke
Schmerzen durch Belastung. Alltägliche Dinge
fallen schwer, bewegen ist fast nicht möglich.

We did some tests to find the right font and based on readability and style considerations, we decided on Rubik. It is a Google font and therefore open source. And as a web font it is designed to be screen optimized.

H1: Helvetica, Bold, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Muli, Bold, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Work Sans, Bold, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Karla, Bold, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Rubik, Medium, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Rubik, Medium, 25/30pt, +1
Marlies Meier, 19.05.1961

H1: Physio
H2: Nächster Termin

B1: Marlies Meier

→ Rubin: Motorradunfall; Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich. «Sie möchte einfach wieder laufen und ein normales Leben führen können»

San Francisco: Motorradunfall; Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich. «Sie möchte einfach wieder laufen und ein normales Leben führen können»

Helvetica: Motorradunfall; Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich. «Sie möchte einfach wieder laufen und ein normales Leben führen können»

B1, Rubik, Regular 15/16px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 14/18px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 15/20px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 16/20px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 18/20px, +1: Marlies Meier: Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23pt, +1 (022020):
Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23pt, +1 (022021):
Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23pt, +1 (0271EA):
Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23pt, +1 (0271EA):
Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

B1, Rubik, Regular 17/23pt, +1 (0271EA):
Motorradunfall, Sprunggelenk zerstört, Arthrodese Sprungelenk für Heilung, starke Schmerzen durch Belastung. Alltägliche Dinge fallen schwer, bewegen ist fast nicht möglich.

A few design and colour suggestions

The image displays a 3x4 grid of screenshots from a mobile application, illustrating design iterations across three rows. Each row contains four screenshots showing different sections of the app's interface.

- Row 1:** Shows the main dashboard with a light blue header. It includes a search bar, a user icon, and several circular icons for Patienten, Termine, Dokumentation, Übungen, Nachschlagen, and Einstellungen. Below the header is a list of upcoming appointments (Terminen) for a patient named Marlies Meier.
- Row 2:** Shows the same dashboard but with a red header. The icons and appointment list remain the same.
- Row 3:** Shows the dashboard with a dark red header. The icons and appointment list remain the same. To the right of the dashboard, there is a detailed anatomical diagram of a human muscular system, specifically highlighting the legs and torso.

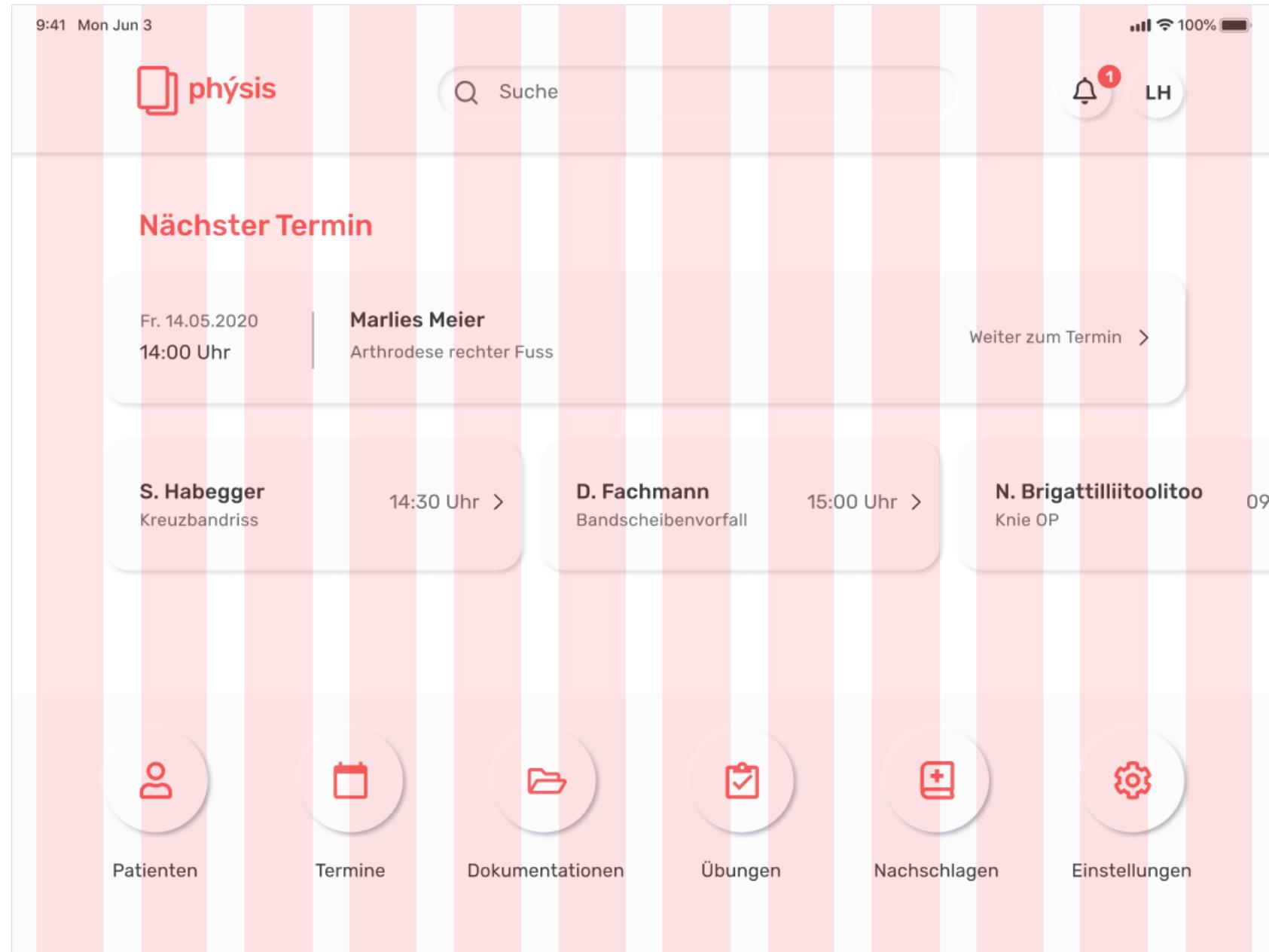
To bring the individual design elements together, we made first experiments with shapes, positions and colours.

Design Elements

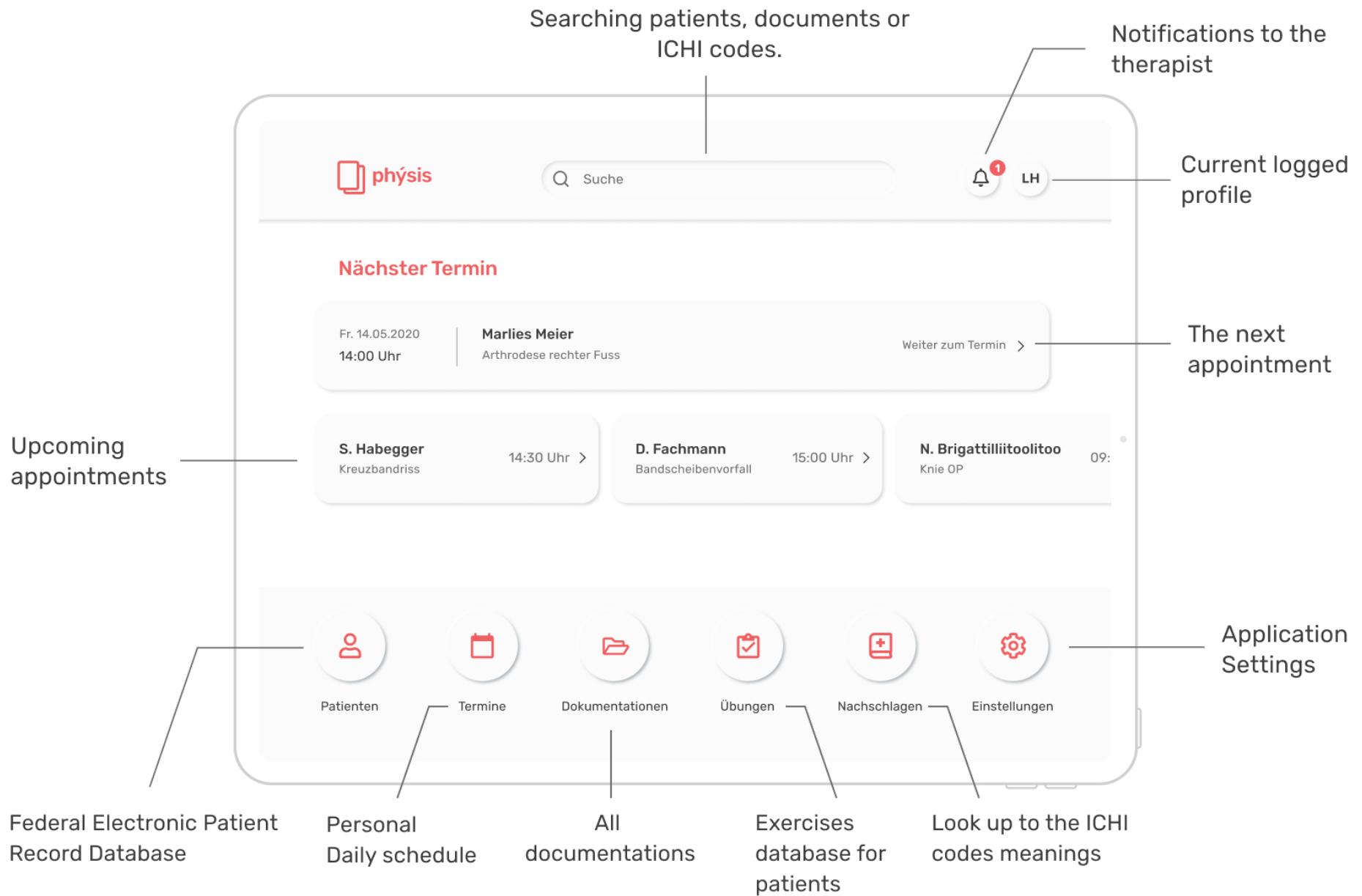
The screenshot shows a mobile application interface with the following elements:

- Top Bar:** Includes icons for back, notifications (1), LH, three horizontal lines, plus, and checkmark.
- Time:** 13:30, 14:00 (highlighted in red), 14:30.
- Tabs:** Diagnostik (selected), Therapie, Übungen.
- Search:** Search icon and text "Suche".
- Medical Record Card:** Shows "Diagnose" and "Arthrodesis rechter Fuss".
- Buttons:** "Körperregion bestätigen >" and "Ärztliche Beilagen >".
- Text:** "To break out of the medical field we have chosen a red tone. This can be easily combined in the world of physiotherapy, with coloured therapy equipment, therapy tapes and sportswear. It also reminds us of the colour of muscles." and "We wanted to keep the design elements as simple as possible and focus on usability."
- Logo:** physis logo with a red stylized 'p' icon.
- Section Headers:** H1: This is a H1 Text, H2: This is a H2 Text.
- Text Examples:** B1: This is a B1 Text, B1: This is a B1 Medium Text, B2: This is a B2 Text.
- Color Swatches:** Dark gray (#3D3D3D), Red (#F06062), Gray (#707070), Light gray (#FBFBFB), Very light gray (#E5E5E5).

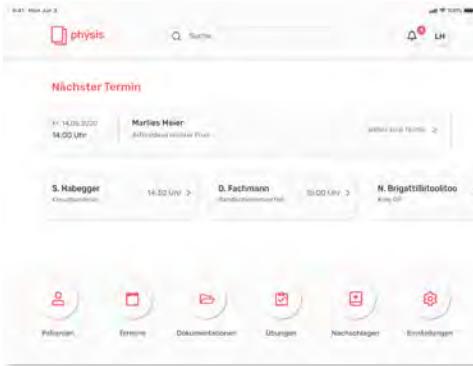
12 grid



Home Screen specified

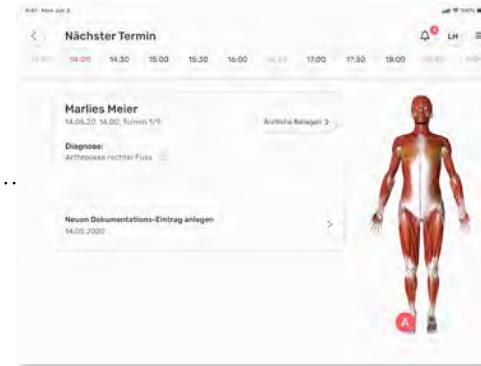


A possible way to documentation



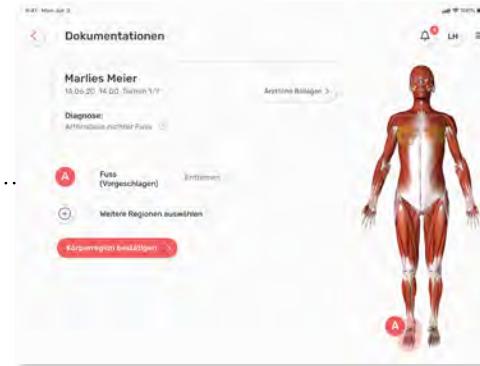
Home screen:

For quick access to the next appointments and the most important menu items.



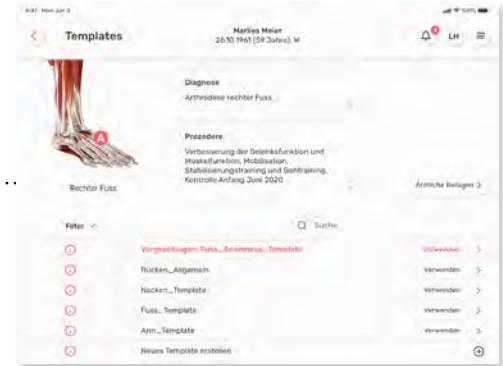
Next appointment screen:

The most important information about the patient and her diagnosis, the first documentation entry can be started.



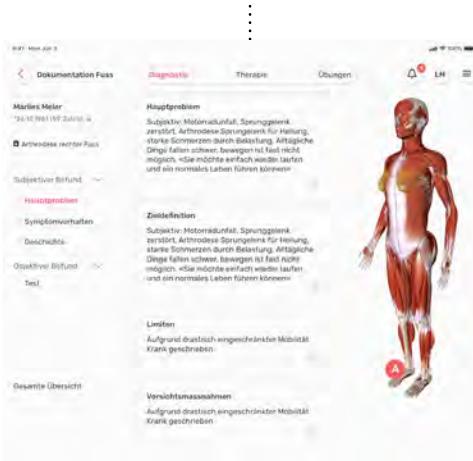
Documentation Screen:

The most important information about the patient and her diagnosis, suggested area can be edited or supplemented.



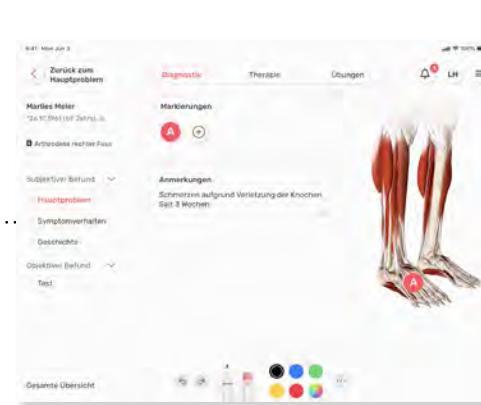
Template Screen:

The most important information about the diagnosis, a matching template can be selected or created.



Documentation - Diagnostics:

All documentation contents at a view, editable at any time and a complete overview as one sheet is possible.



Documentation - Diagnostics - Marking A:

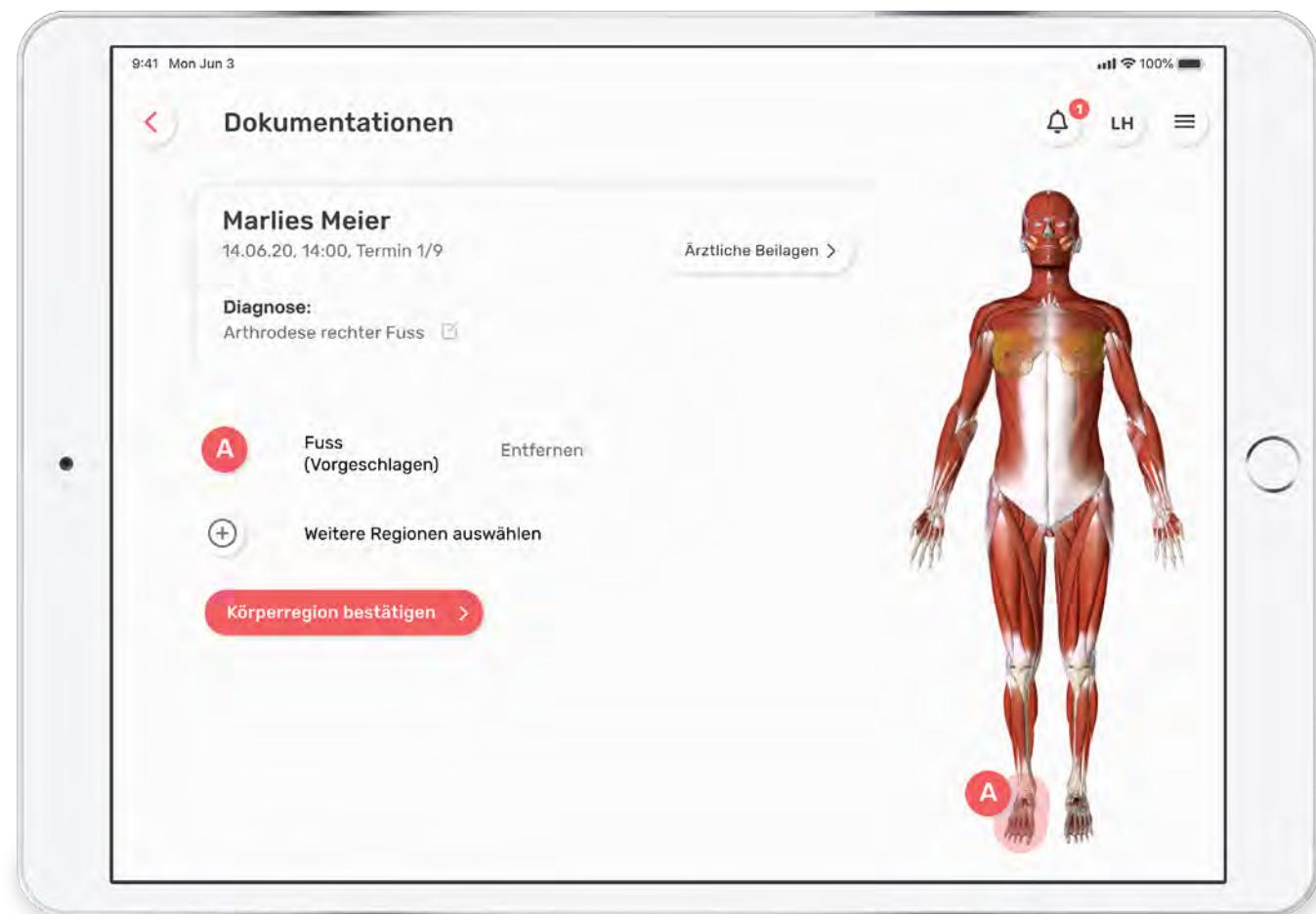
Here the bodychart and the markings can be edited more precisely.

Here you can see one possible way to get to the documentation. Here the way goes over the next date, as fast access.

Documentation

According to the diagnosis, the doctor indicated in the EPD, the affected body part is automatically suggested before the documentation of the intervention.

In this way, a specific documentation template is proposed and the ICHI classifications are reduced only with the affected body part, which makes the work of the physical therapists easier. It is possible to add further regions, or modify the template as required.



Documentation

Our approach was to rely on automation through “intelligent” proposals and a narrowing down of the classification as much as possible before the user has to choose interventions.

Here can the user choose interventions which are directly connected to the ICHI.

The handling in landscape format, is thought so, because an iPad is most likely to be held like this and controlled with the thumbs. With an external keyboard and a stand as a holder it is also used in landscape mode.

