## 1 Supplemental file

### 2 Activity sheets describing the 38 clinical activities in detail

- 3 Item 4 (What (procedures)), item 5 (Who provided), item 6 (How), item 8 (When and how much),
- 4 and item 9 (Tailoring) from the TIDieR checklist are described for each of the clinical activities.
- 5 The clinical activities are grouped in ten key components.

#### **7 Clinical assessment**

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What (procedures)		Physical assessment Anamnesis, individual physical assessment of range of motion, strength, neurology, blood pressure, stethoscopy, registration/adjustment of medication, allergy, alcohol, and/or smoking.
Tailoring		Yes
Who provided		Rheumatologist and physiotherapist
How		Individual counselling
	Number of sessions	1
When and how much	Duration	30 minutes
	Intensity	-

What (procedures)		Psychosocial assessment Dialog about individual psychosocial barriers to and facilitators of functioning.
Tailoring		Yes
Who provided		Nurses and occupational therapist
How		A part of the individual nurse and occupational therapist counselling
	Number of sessions	2
When and how much	Duration	30 minutes
	Intensity	-

#### Motivation and change

What (procedures)	Instruction in exercise app Introduction to the functionalities in the app "MitSano".
Tailoring	No

Who provided		Physiotherapist
How		Group lecture
	Number of sessions	2
When and how much	Duration	30 minutes
	Intensity	-

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	Introduction to rehabilitation Knowledge about and insight into how the body, environment and mentality influences the way we live with a disease. Introduction to tools helping them to influence body, environment, and mentality in order to make them cope with their life situation.
	No
	Occupational therapist
	Group lecture and dialog
Number of sessions	1
Duration Intensity	60 minutes
	sessions

What (procedures)		Exercise theory Theory/principles for aerobe, anaerobe/strength and mobility exercises. How exercise influences both physical and mental health.
Tailoring		No
Who provided		Physiotherapist
How		Group lecture and dialog
When and how much   Number of sessions   Duration   Intensity		1 60 minutes

	works towards facilitating the participants' relation to thoughts, feelings, and bodily sensations.
	No
	Mindfulness instructor
	Group sessions
Number of essions Duration	1-4 45-60 minutes
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What (procedures)		Involvement of relatives The aim is to create a common language and understanding among patients and their relatives by educating them in Sano's theoretical approach and individualised focus on treatment. The arrangement compromises knowledge on everyday life strategies, pain knowledge and management and training principles.
Tailoring		No
Who provided		Three providers from the multidisciplinary team
How		<ul> <li>Group session</li> <li>Possibility to attend treatment sessions, counselling, lectures and diner</li> </ul>
	Number of sessions	1 group session Unlimited possibility to attend their relatives' everyday life at Sano.
When and how much	Duration Intensity	150 minutes

What (procedures)		Motivation and anchoring How to set goals for the future focusing on
		how to set goals for the fature focusing on how to combine everyday life with physical and mental capacity. Insight into the circle of motivation and anchoring as a useful tool in an everyday life setting.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	60 minutes
	Intensity	-

What (procedures)		The next step How to create a satisfying and meaningful life and still accept the "pain" life brings.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	45 minutes
	Intensity	-

### Pain knowledge and management

What (procedures)		Chronic pain and chronic back pain Theory about chronic pain and chronic back pain.
Tailoring		No
Who provided		Rheumatologist
How		Group lecture and dialog
	Number of sessions	One lecture every fortnight
When and how much	Duration	60 minutes
	Intensity	-

What (procedures)		Experiences with pain The patients will gain insight into how pain can influence physical, mental, and social state of well-being.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	45 minutes
	Intensity	-

What (procedures)		Knowledge about pain Understanding pain and mentality. Knowledge about terms such as stimuli, receptors, sensors, alarm system, and sensitization. Histories and metaphors making it easier to understand pain.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	45 minutes
Intensity		-

What (procedures)		Knowledge about analgesic medicine Introduction to the different groups of analgesic medicine including effects and side effects, in order to see analgesic medicine as a remedy to increase disability and quality of life.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	45 minutes
Intensity		-

What (procedures)		Living with pain Theoretic class where the patient will gain knowledge about acute and chronic pain, and gain insight into how they actively can change undesirable thoughts and behavior caused by chronic pain, and how to divert thoughts about pain. The patients will be presented to terms such as catastrophizing, stress, energy givers/energy drainers, quality of life, and accept of own situation.
Tailoring		No
Who provided		Nurses
How		Group lecture and dialog
When and how much	Number of sessions Duration Intensity	1 60 minutes

# **Multidisciplinary intervention**

What (procedures)		Welcome meeting Introduction and status.
Tailoring		No
Who provided		One provider from the multidisciplinary team
How		Group session and dialog
	Number of sessions	2-3
When and how much	Duration	30
Intensity		-

What (procedures)		Multidisciplinary conference A patient-centred conference identifying individual self-directed goals and making an individual rehabilitation plan.
Tailoring		Yes
Who provided		Two-four providers from the multidisciplinary team
How		Individual counselling
When and how much   Number of sessions   Duration   Intensity		1 30 minutes

What (procedures)	Open counselling An individually conversation where the patient can ask questions and have his or her exercise program adjusted.
Tailoring	Yes
Who provided	Two providers from the multidisciplinary team

How		Individual counselling
	Number of sessions	5 days a week (voluntary)
When and how much	Duration	30 minutes
	Intensity	-

What (procedures)		Midterm evaluation Evaluation of individual self-directed goals and revision of the individual rehabilitation plan.
Tailoring		Yes
Who provided		One provider from the multidisciplinary team
How		Individual counselling
When and how much   Number of sessions   Duration   Intensity		1 30 minutes

## 29 Exercise and physical activity

What (procedures)		Aqua gymnastic Aerobe and anaerobe exercises as well as exercises focusing on mobility and stability/balance.
Tailoring		The exercises are chosen and adjusted based on the individual patient.
Who provided		Physiotherapist
How		Group session
	Number of sessions	Supervised: 4 sessions Non-supervised: 6 sessions
When and how much	Duration Intensity	30 minutes incl. warm-up and cool-down Borg 11-15

What (procedures)		Circuit training
		Aerobe and anaerobe exercises of the whole body using elastics, weights, balls, trampoline, step benches, and exercise bikes.
Tailoring		The exercises are chosen and adjusted based on the individual patient.
Who provided		Physiotherapist
How		Group session
	Number of sessions	Supervised: 3-5 sessions Non-supervised: 6-9 sessions
When and how much	Duration	30 minutes incl. warm-up and cool-down
Intensity		Borg 14-17

What (procedures)	Intro electric bicycle
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		Outdoor introduction to electric bicycles that can be borrowed.
Tailoring		Yes
Who provided		Physiotherapist
How		Group session
	Number of sessions	1 (voluntary)
When and how much	Duration	30 minutes incl. warm-up and cool-down
	Intensity	Borg 11-15

What (procedures)		Exercise capacity training The focus is on increasing exercise capacity (Vo2max) using spinning bicycles and step benches.
Tailoring		The exercises are chosen and adjusted based on the individual patient.
Who provided		Physiotherapist
How		Group session
When and how much	Number of sessions Duration Intensity	2-3 30 minutes incl. warm-up and cool-down Borg 16-17

What (procedures)		Healthy feet Warm up, strength- and mobility exercises with small gymnastic balls in different postures. Provide knowledge about different foot types, how to choose appropriate footwear, and how to provide adequate care for the feet.
Tailoring		No
Who provided		Physiotherapist
How		Group session
When and how much	Number of sessions Duration Intensity	2 (individually referred) 30 minutes Borg 7-10

What (procedures)		Closing activity Relaxation activity and goodbye.
Tailoring		No
Who provided		Physiotherapist
How		Group session
	Number of sessions	1
When and how much	Duration	45 minutes
	Intensity	-

# Individual counselling

What (procedures)		Individual nurse counselling The counselling will be based on the patient's experiences and challenges motivating and supporting them to empower their future.
Tailoring		Yes
Who provided		Nurses
How		Individual counselling
	Number of sessions	4-6
When and how much	Duration	30-45 minutes
	Intensity	-

What (procedures)		Individual physiotherapy counselling Instruction in exercise programs and continuous progression/regression of exercises.
Tailoring		Yes
Who provided		Physiotherapist
How		Individual counselling
	Number of sessions	6-9
When and how much	Duration	20-30 minutes
	Intensity	-

What (procedures)		Individual occupational therapy counselling Focus on habits, roles, and routines in the patient's everyday life.
Tailoring		Yes
Who provided		Occupational therapy
How		Individual counselling
	Number of sessions	4
When and how much	Duration	30-45 minutes
	Intensity	-

What (procedures)		Individual dietary counselling Includes e.g. weight loss or weight gain strategies, irritable bowel syndrome, food intolerances, etc.
Tailoring		Yes
Who provided		Nutritional counsellor
How		Individual counselling
	Number of sessions	2-4 (individually referred)
When and how much	Duration	45-60 minutes
	Intensity	-

What (procedures)	Individual rheumatologic counselling

		Includes e.g. disease pathology and etiology, disease management at any level, medication, physical examination, joint- or bursa-injection.
Tailoring		Yes
Who provided		Rheumatologist
How		Individual counselling
When and how much	Number of sessions	0-2 (individually referred)
	Duration	15-30 minutes
	Intensity	-

### **Essential activity**

What (procedures)		Activity and health The patients will gain knowledge about and learn to understand the connection between activity and health. The patients will gain insight into how their engagement in meaningful activities in their everyday life influences their physical and mental wellbeing. The patients are introduced to the dimensions of activity and how they can use problem solving in performing everyday life
Tailoring		activities. No
Who provided		Occupational therapist
How		Group lecture and dialog
When and how much	Number of sessions Duration Intensity	1 60 minutes -

What (procedures)		Balanced activity Knowledge about how, in a desirable way, to organise and priorities activities and energy in everyday life situations. Knowledge about diversities in activities and discussion about how to create equilibrium between duty and inclination.
Tailoring		No
Who provided		Occupational therapist
How		Group lecture and dialog
When and how much	Number of sessions Duration Intensity	1 60 minutes

		Dialog concerning how social relations affect health and everyday life activities. The patients prepare a social activity together where their newly acquired skills on problem solving according to activities are used.
Tailoring		Yes
Who provided		Occupational therapist
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	60 minutes
	Intensity	-

What (procedures)		Lifelong activity How to maintain the process with gaining activities as desired.
Tailoring		No
Who provided		Occupational therapist
How		Group lecture and dialog
	Number of sessions	1
When and how much	Duration	60 minutes
	Intensity	-

# Activities of daily living

What (procedures)		Sleep Introduction to sleep related problems as for example difficulties falling asleep, unrestful sleep, or waking up early. What is a good night's sleep, how unrestful or the lack of sleep can affect physical and mental health, what can be done to obtain a better night's sleep, and the principles for a good sleeping position.
Tailoring		Yes
Who provided		Occupational therapist
How		Group lecture and dialog
When and how much	Number of sessions Duration Intensity	1 (individually referred) 60 minutes

What (procedures)	House and garden The focus is on the individual patient's disabilities with cleaning, shopping staple goods, gardening, and/or cooking.
Tailoring	Yes
Who provided	Occupational therapy

How		A workshop with a combination of theory, exchange of experience and putting it into practice.
When and how much	Number of sessions	1 (individually referred)
	Duration	60 minutes
	Intensity	-

### **Nutrition and weight loss**

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What (procedures)		Permanent weight loss strategies Lecture developed by the Danish Health Authority. Focus is on how to start losing weight and how to maintain the weight loss e.g. a result of diet changes.
Tailoring		No
Who provided		Physiotherapist
How		Group lecture and dialog
When and how much	Number of sessions	1 (only for patients with BMI>25)
	Duration	30 minutes
	Intensity	-

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What (procedures)		Healthy Lifestyle Provided an introduction to macro- and micronutrients. Providing the patients with knowledge on e.g. nutrition recommendations drafted by The National Board of Health concerning e.g. fruits and vegetables, saturated fat, omega-3 fatty acids, sugar, etc.
Tailoring		No
Who provided		Nutritional counsellor
How		Group lecture and dialog
When and how much	Number of sessions Duration Intensity	1 60 minutes

#### 56 Individual exercise

What (procedures)		Individual exercise Unsupervised individual exercise in accordance with physiotherapy instructions.
Tailoring		Yes
Who provided		-
How		Individual
	Number of sessions	2-3 times a day
When and how much	Duration	10-30 minutes
	Intensity	Individual