

# A supportive plan for people with type 2 diabetes who do not achieve their treatment goals

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<b>Registration date</b> 01/10/2020	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Protocol
<b>Last Edited</b> 04/12/2024	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Type 2 diabetes is a common condition where the level of sugar in the blood is too high. There is a need for strategies regarding the treatment and support for patients with type 2 diabetes who don't reach their treatment goals. One of these strategies can be individual care-planning. There is some evidence that patient-centered care-planning can affect blood sugar and self-management ability. These effects are more visible if the individual care planning is integrated into routine care and if the patient receives a written care plan. There are only a few studies where a specific well-described written care plan is examined in a group of patients with type 2 diabetes. Two such studies have demonstrated some evidence for improved clinical outcomes such as blood sugar levels. The aim of this study is to find out whether a written individual care plan for persons with type 2 diabetes and inadequate self-management capability can affect blood sugar levels, the experience of living with diabetes and the support from the diabetes care as well as the patient's health-related quality of life.

### Who can participate?

Patients with type 2 diabetes who have high blood sugar levels and have had diabetes for more than 5 years

### What does the study involve?

All participants will receive usual care and those randomly allocated to the intervention group will receive the individual care plan. Blood sugar levels (HbA1c), blood pressure, lipids, health-related quality of life and the participant's experience of living with diabetes and the experience of support from healthcare are assessed.

### What are the possible benefits and risks of participating?

The study is not associated with any known increased risks. The questionnaires are well-known and widely used. All data will be stored in a digital form in encrypted files or in a locked cabinet. All personal data will be managed in accordance with the General Data Protection Regulation (GDPR).

Where is the study run from?  
Uppsala University (Sweden)

When is the study starting and how long is it expected to run for?  
April 2020 to December 2026

Who is funding the study?  
1. Region of Uppsala research and development funds (Sweden)  
2. The Family Ernfors fund (Sweden)

Who is the main contact?  
Jessica Rosman  
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## Contact information

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## Additional identifiers

# Study information

## Scientific Title

Individual goal-based plan based on nursing theory for adults with type 2 diabetes and self-care deficits: a randomised controlled trial

## Study objectives

A written individual care plan can affect glycemic control, the experience of living with diabetes and the support from the diabetes care as well as the patient's quality of life.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved 17/09/2020, The Ethical Review Authority in Uppsala, Sweden (Etikprövningsmyndigheten, Uppsala, Sverige; +46 (0)10 475 08 00; [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), ref: 2020-03421

## Study design

Multi-center interventional randomized controlled trial

## Primary study design

Interventional

## Study type(s)

Treatment

## Health condition(s) or problem(s) studied

Type 2 diabetes with inadequate self-management

## Interventions

Patients will be asked about participation in connection with their annual check-up at the primary care diabetes nurse. Several primary care units in the Region of Uppsala will be participating in recruiting patients. Approximately 20 study participants will be asked to take part in the qualitative interview study. Both patients for whom the intervention has had a good and effect on glycemic control and patients for whom there was no effect will be included.

## Randomization

Included patients will be randomized to either the control or intervention group. Randomization lists will be generated using IBM SPSS Statistics 26.0 software. A person who is not involved in the study will prepare and seal opaque envelopes marked and numbered from 1 to 110. The envelopes will contain a card regarding the group allocation and, for the intervention group, a copy of the written individual care-plan. The envelopes will be opened when a patient is included in the study, and the patient's serial number and social security number will then be sent to the responsible study nurse.

## Intervention

During the routine appointment, participants in the intervention group will be offered to create their personal goals using the written individual care-plan. This is done in collaboration with the diabetes nurse. The care plan is intended to support the patients to establish relevant and

feasible goals regarding their diabetes self-management. The care-plan is designed according to the principles of person-centered care.

The patients get an opportunity to reflect on the following topics:

1. What is important to me regarding my diabetes care?
2. What is my personal treatment goal and when do I want it to be achieved?
3. What am I doing right now or what do I plan to do to achieve my goal?
4. How do I want the primary care center to help me achieve my goal?

The nurse encourages the participant to write down their individual reflections and goals regarding their self-management on the care plan. The participant's current and target measurements regarding HbA1c, LDL, blood pressure, and other individual target measurements are filled out. The care plan also includes an explanatory scale of the relationship between blood glucose and HbA1c.

Patients then get a copy of the care plan and a customized follow-up plan is set up. The follow-up is individualized based on the participant's individually set self-management goals. The goals and follow-up plan is documented in the patient chart.

On the back of the care plan, there is brief information about the support and care offered at the primary care center regarding type 2 diabetes. There is also short information about pharmaceutical treatment regarding diabetes, blood pressure, and lipids.

In addition to the care plan, both intervention and control group participants receive usual care.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

HbA1c measured using capillary electrophoresis in mmol/mol at baseline, 6 and 12 months. Data will be collected from the National Diabetes Registry.

## **Key secondary outcome(s)**

1. Blood pressure measured manually at baseline, 6 and 12 months. Data will be collected from the National Diabetes Registry
2. LDL, HDL and triglycerides measured in mmol/L at baseline, 6 and 12 months. Data will be collected from the National Diabetes Registry
3. Health-related quality of life measured with RAND-36 at baseline, 6 and 12 months
4. Change in the experience of living with diabetes and of the support from the diabetes care measured with "The Diabetes Questionnaire" at baseline, 6 and 12 months. Data will be collected from the National Diabetes Registry

## **Completion date**

31/12/2026

## **Eligibility**

### **Key inclusion criteria**

1. HbA1c  $\geq 58$  mmol/mol
2. Diabetes duration  $\geq 5$  years

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

1. Cognitive impairment
2. Inability to read and understand the Swedish language and to autonomously fill out current questionnaires due to physical impairment

**Date of first enrolment**

02/09/2021

**Date of final enrolment**

24/12/2025

**Locations****Countries of recruitment**

Sweden

**Study participating centre**

Region of Uppsala, Primary Care

Dragarbrunnsgatan 46

Uppsala

Sweden

75320

**Sponsor information****Organisation**

Uppsala University

**ROR**

<https://ror.org/048a87296>

## **Funder(s)**

### **Funder type**

Charity

### **Funder Name**

Stiftelsen Familjen Ernfors Fond

### **Alternative Name(s)**

Family Ernfors Foundation, Ernfors Family Foundation

### **Funding Body Type**

Private sector organisation

### **Funding Body Subtype**

Trusts, charities, foundations (both public and private)

### **Location**

Sweden

### **Funder Name**

Region Uppsala

### **Alternative Name(s)**

### **Funding Body Type**

Government organisation

### **Funding Body Subtype**

Local government

### **Location**

Sweden

## **Results and Publications**

### **Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are not expected to be made available due to lack of informed consent from the participants to share material outside the research group. In addition, the researchers do not have ethical approval for sharing data material outside the research group

### **IPD sharing plan summary**

Not expected to be made available