

A team approach in diabetes care - Does the chronic care model work in routine care for diabetes patients in primary care?

Submission date 22/02/2010	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 03/03/2010	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 15/10/2012	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title

The chronic care for diabetes study (CARAT): A cluster randomised controlled trial

Acronym

CARAT

Study objectives

The implementation of several elements of the Chronic Care Model (CCM) via a specially trained practice nurse improves the HbA1c level of diabetes type II patients in small, single handed practices in Switzerland significantly after one year (estimated change: 0.5% in HbA1c) and increases the proportion of patients who achieve the recommended targets regarding blood pressure (<130/80), HbA1c (≤ 6.5) and LDL-cholesterol (<1.8 mmol/l) significantly. Furthermore, this implementation improves patients quality of life, and several evidence based quality indicators for diabetes care. Finally, these improvements in care, aiming at a better accordance with the CCM, will be experienced by the patients as well as by the practice team.

Ethics approval required

Old ethics approval format

Ethics approval(s)

The ethics board of the Kanton Zurich (Kantonale Ethik-Kommission Zürich) approved on the 25th of January 2010 (KEK-ZH-NR: 2009-0094/1)

Study design

Single centre cluster-randomised open label two-armed interventional study

Primary study design

Interventional

Study type(s)

Other

Health condition(s) or problem(s) studied

Diabetes type II; primary care

Interventions

1. Practices in the control group:

Treatment as usual (patients will be treated by the GP as usual)

2. Practices in the intervention group:

2.1. Intervention on the practice nurse:

Participation in a 6-day educational course Treatment of long term patients - module diabetes (Betreuung von Langzeitpatienten - Modul Diabetes) organised by the Schweizerischer Verband medizinischer Praxisassistentinnen (18 - 24/04/2010): Content: treatment of diabetes patients (medical basics, diet, practical tips, communication etc.), role of the practice nurse in a team providing structured care for chronically ill, how to perform a follow-up with the CARAT-monitoring-tool

2.2. Intervention on the GPs:

Two interactive workshops of 4 hours (second 2 hours together with the practice nurses):

2.2.1. Evidenced based treatment of diabetes in a primary care setting, implementing structured and proactive care according to the Chronic Care model in practice (29/04/2010)

2.2.2. Exchange of experience and cardiovascular risk management (autumn 2010)

3. Intervention on the team:

One outreach visit will be performed by a study nurse of the study centre after completing the courses for GPs and practice nurses. The aims are to assess if the structures in the practices are appropriate to perform care according to this study protocol, to reveal possible problems which might have occurred, to discuss and implement appropriate solutions, and to check that the CARAT-tool is used as intended.

4. Intervention on the patient:

Patients will be treated by the special trained practice nurse in conjunction with the GP, treatment will be structured according to the Chronic Care Model.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Glycated Haemoglobin (HbA1c) level, measured at baseline (T0) and 1 year (T1)

Key secondary outcome(s)

All measures will be assessed at baseline (T0) and 1 year (T1):

1. Guideline adherence (recommended treatment goals): Proportion of patients who achieve the recommended targets regarding:

1.1. HbA1c (≤ 6.5)

1.2. Blood pressure ($< 130/80$)

1.3. Low-density lipoprotein-cholesterol (LDL-cholesterol) (< 1.8 mmol/l)

2. Quality of Life, assessed by SF-36 questionnaire

3. Process quality:

3.1. Proportion of patients receiving at least one eye examination per year

3.2. Proportion of patients receiving at least one food examination per year

3.3. Proportion of patients receiving at least one nephropathy screening per year

3.4. Proportion of patients receiving at least one neurological testing per year

4. Accordance to the Chronic Care Model:

4.1. Patient Assessment of Chronic Illness Care questionnaire (PACIC-5A)

4.2. Assessment of Chronic Illness Care questionnaire (ACIC)

Completion date

01/05/2011

Eligibility

Key inclusion criteria

1. Diabetes type II patients (Glucose in blood plasma $> 7,0$ mmol /l)

2. At least one measure of HbA1c $> 7.0\%$ within the last year

3. Aged older than 18 years

4. Male and female

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. Insufficient German language skills
2. Patients who contacted the practice for emergencies only or as a substitute practice
3. Patients with oncological diseases and/or an estimated life expectancy of less than six months due to severe diseases

Date of first enrolment

01/01/2010

Date of final enrolment

01/05/2011

Locations**Countries of recruitment**

Switzerland

Study participating centre

Institut für Hausarztmedizin der Universität Zürich

Zürich

Switzerland

8091

Sponsor information**Organisation**

Institute of General Practice Medicine - University of Zurich (Institut für Hausarztmedizin der Universität Zürich) (Switzerland)

ROR

<https://ror.org/02crff812>

Funder(s)

Funder type

University/education

Funder Name

Institute of General Practice Medicine - University of Zurich (Institut für Hausarztmedizin der Universität Zürich) (Switzerland)

Funder Name

Swiss Academy for Medical Sciences (SAMW) (Switzerland) (grant number RRMA 8-09)

Funder Name

Menarini AG (Switzerland)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	15/06/2012		Yes	No
Protocol article	protocol	15/06/2010		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes