Switzerland - CoDiab-VD: Cohort of Patients with Diabetes in the Canton of Vaud (Switzerland)

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Overview

Identification

ID NUMBER
DDI-CHE-QDiab-2017-V1

Version

VERSION DESCRIPTION
Version 1.0

Overview

ABSTRACT

The Department of Health and Social Welfare (DSAS) of the canton of Vaud launched in 2010, through its Public Health Service (SSP), an innovative programme to tackle the burden of diabetes in the canton of Vaud: the Programme cantonal Diabète (PcD). Its aims was to lower diabetes incidence and prevalence, and to improve quality of diabetes care.

As part of the development and the evaluation of the PcD, the Institute of Social and Preventive Medicine (IUMSP) of Lausanne was mandated to conduct a survey aiming at characterising individuals with diabetes in the canton of Vaud and describing their diabetes care. Individuals participating in the study in 2011-2012 constituted the baseline of the cohort (CoDiab-VD). Participants were followed up annually from 2013 to 2017. In 2017 a second recruitment of individuals with diabetes was performed. Further follow-ups are planned in 2019 and 2021.

Recruitments were performed through community pharmacies. Were eligible: adult individuals (≥18 years) with a diagnosis of any type of diabetes for at least 12 months, going to a pharmacy with a diabetes-related prescription, who were non-institutionalized (in an institution for elderly or disabled people), who were living in the canton of Vaud (Switzerland) and who consented to participate in the study. Were not eligible: individuals with gestational diabetes, without sufficient French knowledge to understand and fill in the questionnaire, and with cognitive impairment. Individuals accepting to participate received a questionnaire that they filled in at home and sent back to the investigators. Annual follow-up questionnaires were sent to the participants by regular post mail.

Data collected with the self-assessed questionnaires encompass several aspect of diabetes and diabetes care, such as processes and outcomes of care, self-management, daily diabetes management and healthcare utilisation, as well as general health status, health habits, and sociodemographic characteristics. Participants' GP and/or diabetologist were also contacted in 2011-12 and 2014 when their contact details were provided, to get some clinical and processes data.

In 2011-2012, 519 patients with diabetes were included in the study. Their mean age was 65 years, 60% were males, more than 80% were overweight or obese, 17% smoked, 30% were physically inactive and 83% had at least one other chronic condition. A large majority of participants had type 2 diabetes (85%), were treated by oral antidiabetics (80%) and 53% had no diabetes-related complications.

Among processes of care received during the past 12 months, the processes relating to usual controls performed during a medical appointment and those relating to laboratory analyses were considered satisfactory, with more than 90% of respondents reporting glycated haemoglobin (HbA1c), lipid, blood pressure and weight measurements. However, diabetes-specific processes were less satisfactory, with less than 70% of the participants mentioning urine microalbuminuria, diabetic retinopathy and foot controls as well as influenza vaccination. Recommendations about physical activity and dietetics were reported by 69% and 49%, respectively. By contrast, only 5% of the total sample were smokers who did not receive tobacco cessation advice. If more than 80% of respondents reported home glucose monitoring, only 33% had ever participated in a diabetes education class.

On the outcomes of care side, the mean HbA1c was 7.3%, and 6% of patients had a value higher than 9.0%. Regarding generic health-related quality of life, the mental dimension scored better than the physical dimension. The aspects of diabetes-specific quality of life that were the most impacted by diabetes were "freedom to eat", "sex life", "freedom to drink" and "feelings about future". The evaluation of the congruence of care with the Chronic Care Model (CCM) got the lowest score for the two questions regarding "encouragement to attend group or class to help cope with diabetes" and

"encouragement to attend community programmes that could be of help", and the highest score for the question regarding "satisfaction with healthcare organisation".

A large majority of participants reported a least one consultation per year with a physician (general practitioner or diabetologist, 97%). The consultation of other healthcare professionals involved in diabetes care were less frequently reported; most respondents had no visit to specialised nurse (80%), dietician (76%) and podiatrist (62%) during the past 12 months.

Globally, this first picture showed that diabetes care was good with respects to recommendations made by the Swiss Society of Endocrinology and Diabetology, but that room for improvement remained. Six years after this initial recruitment, the second picture obtained in 2017 showed quite similar results.

The CoDiab-VD study is registered with ClinicalTrials.gov, identifier NCT01902043.

The protocol of the study has been published and is available under the reference: Zuercher E, Bordet J, Burnand B, Peytremann-Bridevaux I. CoDiab-VD: protocol of a prospective population-based cohort study on diabetes care in Switzerland. BMC Health Serv Res. 2015;15:329. Available from: http://www.ncbi.nlm.nih.gov/pubmed/26272346

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4536695/pdf/12913_2015_Article_991.pdf

Recruitments' results are available from:

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Peytremann-Bridevaux I, Bordet J, Burnand B. Diabetes care in Switzerland: good, but perfectible: a population-based cross-sectional survey. BMC Health Serv Res. 2013;13:232. Available from: http://www.ncbi.nlm.nih.gov/pubmed/23800376

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3722105/pdf/1472-6963-13-232.pdf

Zuercher E, Casillas A, Hagon-Traub I, Bordet J, Burnand B, Peytremann-Bridevaux I. Baseline data of a population-based cohort of patients with diabetes in Switzerland (CoDiab-VD). Swiss Med Wkly. 2014;144:w13951. Available from: http://www.ncbi.nlm.nih.gov/pubmed/24863132

KIND OF DATA
Sample survey data [ssd] / Self-reported data collected from paper questionnaire

UNITS OF ANALYSIS
The analysis unit is the individual.

At time of the first recruitment in 2011-12, the number of survey participants were 519. From this baseline number, the participants of the follow-ups were 395 in 2013, 339 in 2014, 323 in 2015, 295 in 2016 and 276 in 2017.

At the time of the second recruitment in 2017, 514 new individuals were enrolled in the study and answered the survey questionnaire.

Therefore, in 2017, 790 participants answered to the questionnaire (276 + 514).

KEYWORDS

Diabetes, cohort study, quality of care, patients' reported outcomes and experience measures, canton of Vaud, Switzerland, CoDiab-VD

Coverage

GEOGRAPHIC COVERAGE

Canton of Vaud, Switzerland

UNIVERSE

Non-institutionalized adults with diabetes

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
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OTHER PRODUCER(S)

Name	Affiliation	Role
Antille-Zuercher, Emilie	Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland	Project manager
Carron, Tania	Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland	Scientific associate

FUNDING

Name	Abbreviation	Role
Direction générale de la santé, canton de Vaud	DGS	Funding
Programme cantonal Diabète	PcD	Funding
Swiss School of Public Health	SSPH+	Assistant Professorship grant to I. Peytremann-Bridevaux
Swiss National Science Fondation	SNSF	Funding to I. Peytremann-Bridevaux [PROSPER Nos. 32333B-123817 and 32333B-139789]

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
The pharmacies that have recruited participants.		Recruitment of individuals with diabetes in 2011-12 and 2017
The medical doctors who participate in dedicated parts of the survey.		Communication of some participants' health results in 2011, 2012 and 2014
The individuals with diabetes who participated in the study since 2011-12 or since 2017.		Answers to the self-assessed questionnaires
The auxiliary staff		Enveloping of the documents and data entry
Members of the working groups.		Development of the study and of the core questionnaire

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Racine Céline		Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland	Metadata XML document creator

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DDI DOCUMENT ID
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Sampling

Sampling Procedure

Pharmacies accepting to participate in the study recruited individuals with diabetes during six-week periods in 2011-12 and 2017.

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Questionnaires

Overview

The annual questionnaire is composed of two parts: 1) the core questionnaire, which is quite similar each year, and 2) a thematic module, which is specific to each year questionnaire. All data are described hereafter, collected every year or not.

The core questionnaire includes different diabetes-related themes, divided in primary and secondary outcomes, and other variables.

Primary outcomes:

- Process of care indicators (whether the process was received during the past 12 months):
--- Glycated haemoglobin (HbA1c) check
--- Eye examination by ophthalmologist
--- Urine test for microalbuminuria
--- Diabetic foot examination
--- Lipid profile
--- Influenza vaccination
--- Physical activity recommendations
--- Diet recommendations

- Outcomes of care indicators:
--- Self-reported HbA1c value (last value, for those aware of what HbA1c is)
--- Health-related quality of life (Short Form-12, SF-12)
--- Diabetes-specific quality of life (Audit of Diabetes Dependent Quality of Life, ADDQoL)
--- Patient assessment of diabetes care, congruence of care with the chronic care model (Patient Assessment of Care for Chronic Conditions, PACIC)

Secondary outcomes:
- Self-management activities and support indicators:
--- Self-monitoring of blood glucose
--- Participation in diabetes education courses
--- Self-efficacy (Stanford diabetes-specific questionnaire)

Other study variables:
- Diabetes:
--- Diabetes type
--- Disease duration
--- Antidiabetic treatment
--- Diabetes-related complications:
------ List of following complications: ischemic heart diseases, stroke, retinopathy, chronic kidney disease (CKD) without dialysis, CKD with dialysis or kidney transplant, neuropathy, foot ulcer, lower limb amputation, severe hypo- or hyperglycemia
--- Medication adherence (Morisky Medication Adherence Questionnaire)

- Daily diabetes management
--- HbA1c knowledge
--- Level and source of information about diabetes
--- Diabetes care satisfaction
--- Social support and satisfaction about it
--- Difficulty in diabetes management (how easy/difficult is the daily management of diabetes, overall or regarding physical activity, medication and diet)
--- Overall diabetes management
--- Membership in the local diabetes association
--- Knowledge and use of the diabetes passport (a small booklet with data, information, reminders...)

- Healthcare utilisation indicators (during the past 12 months):
--- Ambulatory care visits to:

------ general practitioner
------ diabetologist
------ diabetes specialist nurse
------ dietician
------ podiatrist
------ dentist
------ pharmacist
------ physiotherapist
--- Hospitalisation
--- Emergency visits
--- Home care services
--- Home support
--- Forgoing care because of cost and care forgone

- Health status and health habits:
--- Weight measurement during a medical visit (past 12 months)
--- Anthropometric values:
------ Weight
------ Height
--- Blood pressure measurement during a medical visit (past 12 months)
--- Blood pressure (systolic and diastolic values, in mmHg)
--- Smoking
--- Drinking habits (AUDIT-C questionnaire)
--- Physical activity levels (Questions from the Swiss Health Survey)
--- Depression screening (two validated questions for the screening of depression)
--- Comorbidities:
------ List of following chronic diseases: heart disease (heart failure, valve disease, heart muscle disease), chronic lung disease (asthma, chronic bronchitis, emphysema), osteoporosis, osteoarthritis or arthritis, cancer or malignancy or lymphoma (with the exception of skin cancer), gastric or duodenal ulcer, depression, Parkinson's disease, hypertension, hyperlipidaemia, other chronic condition

- Health literacy

- Sociodemographic characteristics:
--- Age
--- Gender
--- Marital status
--- Household size
--- Household income
--- Difficulty paying bills
--- Education
--- Employment
--- Health insurance status and receipt of subvention for the health insurance
--- Place of residence
--- Nationality

- Knowledge of, and participation in, PcD activities

Thematic modules
The themes of the annual modules were the following:
- In 2013: diabetic foot
- In 2014: psychosocial aspects of diabetes
- In 2015: eyes and diabetes; coordination and continuity of care
- In 2016: the chronic health problems other than diabetes; needs for therapeutic education
- In 2017: pharmacy care

Data Collection

Data Collection Dates

Start	End	Cycle
2011-09-01		N/A

Data Collection Mode

Paper questionnaire, self-administered. In 2011-12 and 2014, clinical data were obtained from GPs and/or diabetologists for some participants. Data were self-reported by the participants, who filled in the questionnaire at home and sent it back to the investigators. Data collection is still ongoing.

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Data Processing

Data Editing

Data were checked first upon receipt of the questionnaires, for inconsistency (multiple check marks when only one allowed, incoherent numbers or inconsitency between related questions); second, throughout the scanning process, for data entry; and last, by proofing the output Excel file obtained after the entry process.

Data Appraisal

No content available