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# Quality Criteria

Review of Indicators for Quality of Care for People with T2DM



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**TECHNISCHE  
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DRESDEN**

# Introduction – Background

## Diabetes mellitus

- is an important **risk factor** for **micro** and **macro vascular diseases**.
- **Risk factors and outcomes vary across countries**, reflecting a mixture of genetic background, societal and cultural factors as well as public health policies, in combination with local health care practices.
- Effective as well as **efficient diabetes management is essential to prevent or delay complications** and **comorbidities** in diabetes.
- Evaluation criteria are needed to **identify key components** of high quality of care.
- Quality indicators are developed by several associations, e.g. by the ADA [1], EUCID, EUBIROD...
- **But now, the aim is to select a minimum common set of indicators** which we will consented EU-wide to identify and exchange good practices across Europe.

[1] American Diabetes Association. Standards of medical care in diabetes-2014

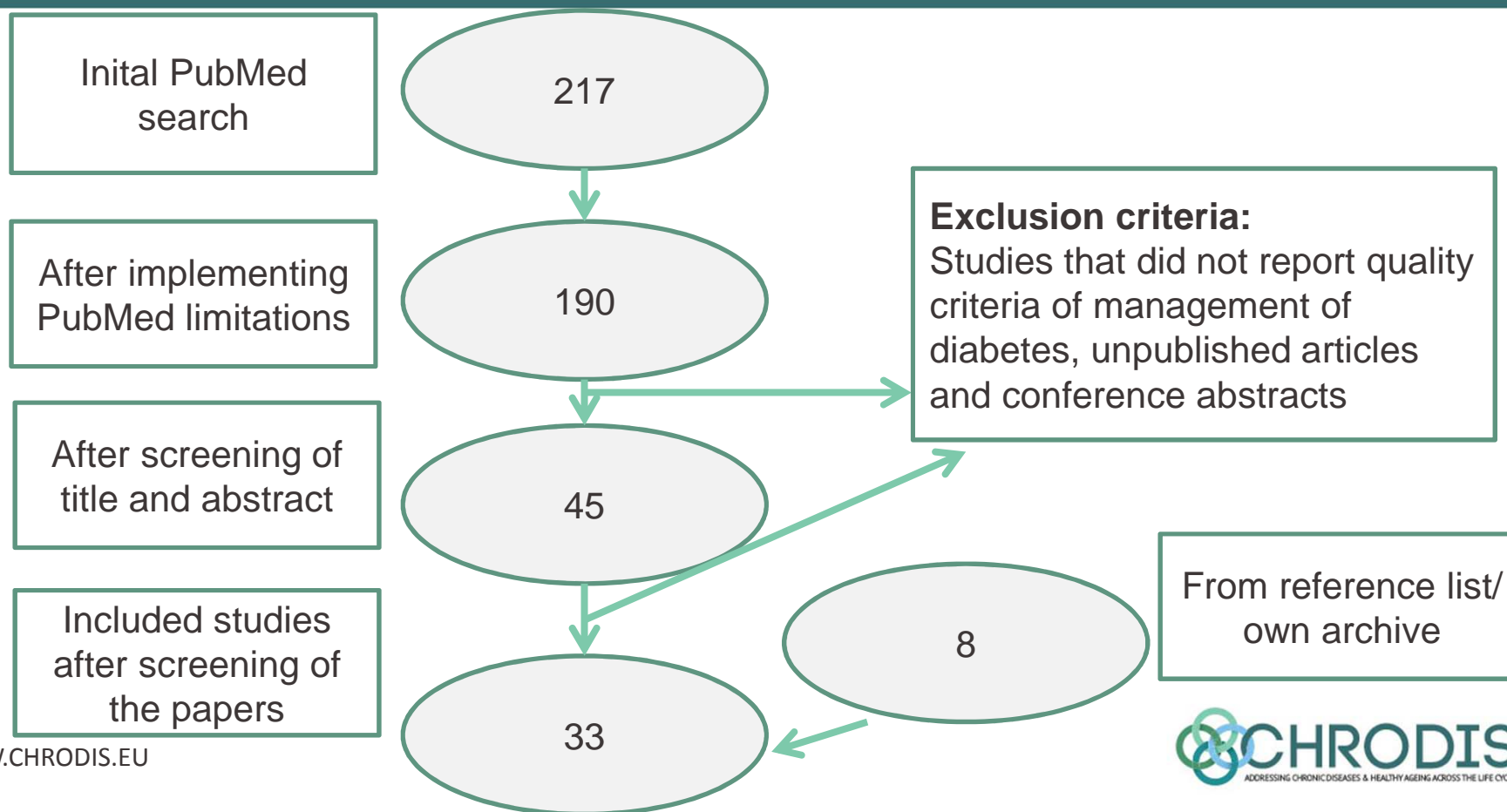
# Methods

## Literature search for quality indicators of diabetes care on 20 October 2014

- Cochrane library and Medline
- **Inclusion criteria:** Publications with information about structure, process and outcome indicators according to diabetes
- **Exclusion criteria:** Studies that did not report quality criteria of management of diabetes, unpublished articles and conference abstracts
- **Search strategy:** ((structure OR process OR outcome) AND (quality indicators OR key components)) AND (type 2 diabetes)
- **Limitation:** ("humans"[MeSH Terms] AND (English[lang] OR German[lang]))
- Additionally, we scanned congress proceedings, reference lists of relevant articles and searched in our own archive.
- All was reviewed by two reviewers in full-text.

# Methods

## Literature search



# Preliminary list of criteria

## Indicators for structure quality

### 1. The program/experience was initiated by

- e.g. governmental body / insurer ... (top down)
- e.g. primary care organizations / diabetes specialized care associations / patient organizations...(bottom up)

### 2. Key components are

- self-management support
- decision support tools  
e.g. guidelines for T2DM / complex guidelines for multimorbid patients with T2DM
- integrated care delivery system / integrated working practice team
- clinical information system
- patient centered approach
- continuous quality management of physicians (e.g. cross-sectoral)

### 3. The program/experience involve

- GPs
- Diabetologists
- Diabetes specialized nurses
- Specialists for diabetic complications
- Ethnic minorities / low socio-economic groups

### 4. Incentive payment

- e.g. pay for performance / pay for outcome

# Preliminary list of criteria

## Indicators for process quality

### Proportion of persons with T2DM

- enrolled in the program
- dropping out of the program
- who regularly self-checked (e.g. plasma glucose)
- with regular education (e.g. at onset.....)
- who were regularly checked
- of planned visits completed

### Proportion of persons with T2DM measured scheduled

- HbA1c
- Body weight
- Blood pressure
- Lipid parameters
- Uric acid
- Creatinine
- Albumin i. U.
- foot pulses and vibration sensation test (or filament test)
- foot inspection
- ECG+ 24 RR profile
- ocular fundus

# Preliminary list of criteria

## Indicators for outcome quality – intermediate outcome indicators

**Percentages (%) of patients with the following parameters under/above a target**

### **Indicators**

- HbA1c
- BMI / Waist circumference
- Blood pressure (RR)
- HDL-C
- LDL-C
- Triglycerides
- Quality of life (e.g. QUALY's)
- Smoking

Legend: HDL=high-density lipoprotein cholesterol; LDL=low-density lipoprotein cholesterol

# Preliminary list of criteria

## Long-term and terminal outcome indicators

### Incidence rates reduced:

- Major limb amputation rate (only aftereffects of DFS)
- Myocardial infarction rate
- Stroke rate
- Cardiovascular mortality rate
- Microangiopathy rate
  - Retinopathy (RP) or blindness rate (only aftereffects of RP)
  - Nephropathy (NP) / dialysis rate (only aftereffects of NP) / Uremia mortality rate
  - Neuropathy or diabetic foot syndrome (DFS) rate



# Key messages

- Comparisons between diabetes management systems, processes and outcomes are important as they facilitate identification of good practices and improved health care for diabetes patients throughout Europe.
- Consented quality standards are necessary for a systematic evaluation and reporting of diabetes management in the EU.
- As a result of this review a common set of indicators for high quality care for people with type 2 diabetes to avoid diabetes-related complications were selected, suggested and will be discussed for further possibly implementation in European countries.

# The Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS)\*



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