

# Does implementation of benchmarking in quality circles improve quality of care of patients with asthma and reduce drug interaction? A cluster-randomised controlled trial.

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<b>Registration date</b> 18/07/2006	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 02/09/2021	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

Not provided at time of registration

## Study website

<http://www.benchmarking-qm.de/FachThema/Projekte/Asthma>

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**

217-43794-6/8

## **Study information**

### **Scientific Title**

Does implementation of benchmarking in quality circles improve quality of care of patients with asthma and reduce drug interaction? A cluster-randomised controlled trial.

### **Acronym**

BiQ

### **Study objectives**

1. Benchmarking in quality circles leads to improvement of asthma management in general practices.
2. Benchmarking in quality circles leads to reduction of drug interaction.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

The study was approved by the Medical Ethics Committee of the Medical Faculty of the University of Heidelberg on 12/11/2004 (reference number 371/2004)

### **Study design**

Cluster-randomised controlled trial

### **Primary study design**

Interventional

### **Secondary study design**

Randomised controlled trial

### **Study setting(s)**

Not specified

### **Study type(s)**

Treatment

### **Participant information sheet**

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

Asthma

## **Interventions**

The physicians will meet each other for two sessions in quality circles. At the first meeting, problems surrounding drug interactions in general practice will be discussed. The topic at the second meeting will be asthma care.

Traditional quality circles:

in these quality circles, an individual feedback report is given to each physician. The physicians handle their data without showing their practice results to each other. The general practitioners (GPs) receive the feedback report with additional information about the performance of the other physicians in the traditional arm. This allows them to compare their own results with the mean and quartiles of performance of the other physicians. The GPs discuss problems of care under the guidance of a moderator. The most important facts are underlined by the given quality indicators. For example, they discuss the feasibility of a new asthma guideline, management of asthma education or prescription management. In particular, prescribing behaviour will be the main focus.

Quality circles with benchmarking:

individual feedback reports will be also given to the participating GPs in these quality circles. Additionally, they receive information about the GP who performed best in their quality circle. The GPs discuss with the identified GP under guidance of the moderator as to how the best practice score was achieved. Additionally, the overall best practice of the whole study arm will be given to enable a comparison with the best benchmark. This multifaceted benchmark intervention should allow learning from the best performer.

## **Intervention Type**

Other

## **Phase**

Not Specified

## **Primary outcome measure**

Primary outcome measures asthma:

1. Amount of patients with inhaled steroids
2. Amount of patients with medication recommended by guidelines
3. Amount of patients with medication not recommended by guidelines (e.g. fixed combination of cromones +  $\beta$ -agonists, oral sympathomimetics)

Primary outcome measures drug interaction:

1. Amount of patients with potential clinically relevant drug-drug interactions, that have to be avoided
2. Amount of patients with potential clinically relevant drug-drug interactions
3. Association between hospital admission and drug-drug interaction

## **Secondary outcome measures**

Secondary outcome measures asthma:

1. Asthma quality of life questionnaire (AQLQ)
2. Asthma step at day and night
3. Amount of patients with medication treatment according to guidelines
4. Amount of patients with asthma education
5. Amount of patients with a peak flow meter at home
6. Amount of patients with an asthma diary

7. Amount of patients with an individual emergency plan at home
8. Days of sick leave
9. Hospital admissions and unscheduled emergency visits

Secondary outcome measures drug interaction:

1. Patients' opinion on drug information, which they got from their general practitioner (regarding drug interactions, interaction with alcohol, dosage regimen, adverse drug reactions, etc.)
2. Amount of patients with a written medication treatment plan
3. Amount of patients with drug interactions (including all prescribed and over-the-counter drugs)
4. Amount of different active ingredients per medical practice
5. Amount of patients with polypharmacy
6. Amount of patients who exceeded the recommended dose of an interacting drug

**Overall study start date**

01/07/2004

**Completion date**

30/06/2007

## **Eligibility**

**Key inclusion criteria**

1. Medication for airway obstruction
2. Medication regime with persistently more than two medications
3. Patients of 18 years and above
4. Able to read and speak German

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

27000 (routine data)

**Key exclusion criteria**

1. Younger than 18 years
2. Not able to read and speak German

**Date of first enrolment**

01/07/2004

**Date of final enrolment**

30/06/2007

## Locations

**Countries of recruitment**

Germany

**Study participating centre**

Department of General Practice and Health Services Research

Heidelberg

Germany

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## Sponsor information

**Organisation**

Ministry of Health (BMG) (Germany)

**Sponsor details**

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**Sponsor type**

Government

**Website**

[http://www.bmg.bund.de/cln\\_041/nn\\_600110/EN/Home/homepage\\_\\_node,param=.html\\_\\_nnn=true](http://www.bmg.bund.de/cln_041/nn_600110/EN/Home/homepage__node,param=.html__nnn=true)

**ROR**

<https://ror.org/05vp4ka74>

## Funder(s)

**Funder type**

Government

## Funder Name

German Ministry of Health (Bundesministerium für Gesundheit [BMG]) (Germany) (grant ref: 217-43794-6/8)

## Results and Publications

### Publication and dissemination plan

Not provided at time of registration

### Intention to publish date

### 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?
<a href="#">Results article</a>		16/06/2011	02/09/2021	Yes	No