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

Submission date
03/07/2006

Recruitment status
No longer recruiting

Registration date
18/07/2006

Overall study status
Completed

Last Edited
02/09/2021

Condition category
Respiratory

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] 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
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

Study type(s)
Treatment

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 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(s)
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 + β-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

Key secondary outcome(s))
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

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

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

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
69115

Sponsor information

Organisation
Ministry of Health (BMG) (Germany)

ROR
https://ror.org/05vp4ka74

Funder(s)

Funder type
Government

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

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		16/06/2011	02/09/2021	Yes	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes