

Medication review Outcomes

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Overview

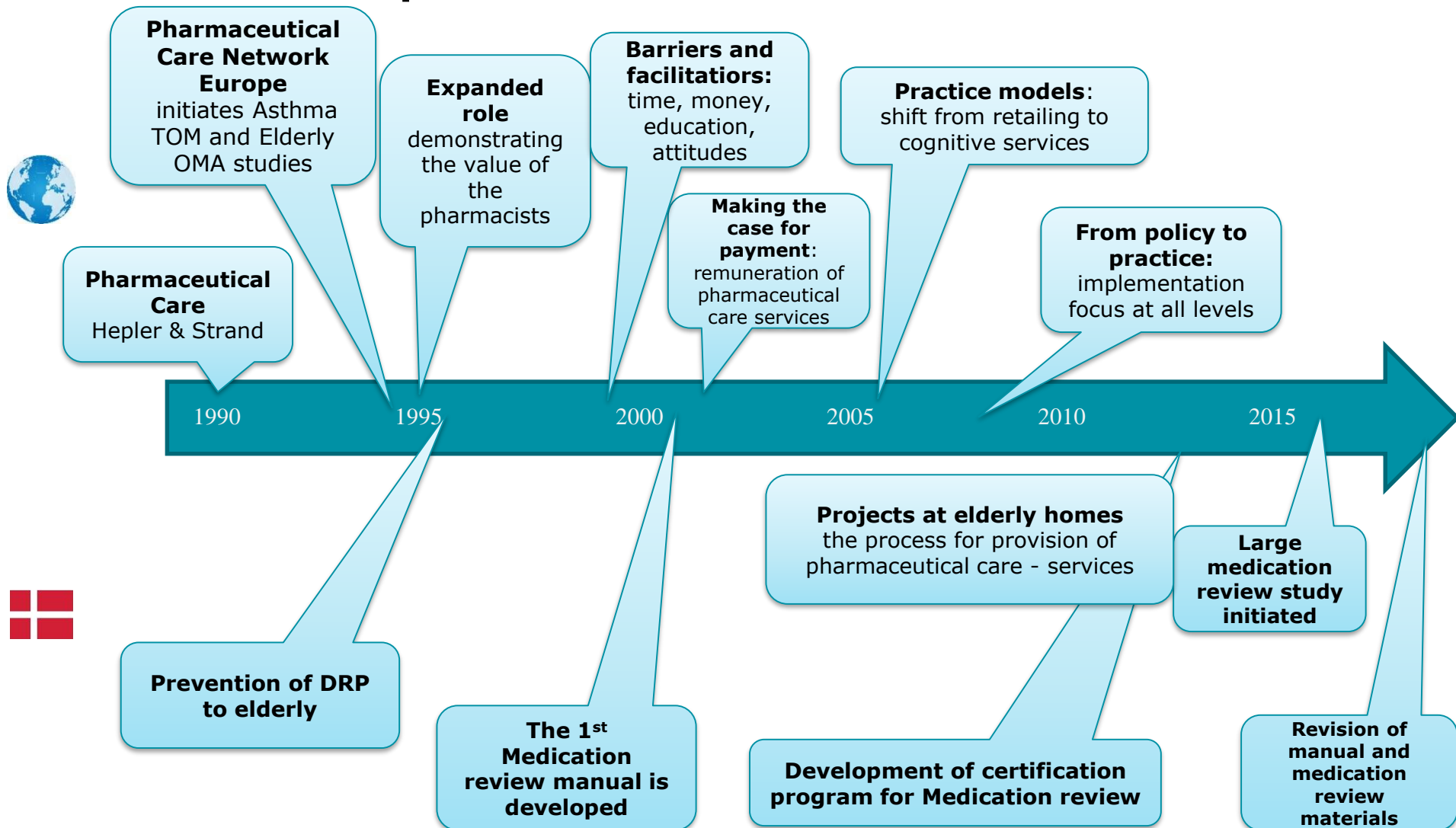
- Why is medication review interesting in Denmark
- Medication review development and process in DK
- What is the impact of medication review?
- How to study the impact - outcome measures
- Medication review in Southern region of Denmark
- Evaluation of the implementation of Medication Review in Southern Region of Denmark

Patients and medicine in Denmark

- Population: 5.7 mill.
- 1.7 mill suffering from chronic condition or prolonged illness
- Population of 65+ increasing from 16 % (2010) to 25 % (2042)
- Polypharmacy (+5) prescribed for almost 1 mill. people



The development of medication reviews



The impact of medication review

Cost analysis and cost-benefit analysis of a medication review

with follow up service in aged polypharmacy patients

The MEDMAN study: a randomized controlled trial of community pharmacy-led medicines management

Conclusion. There was no change in the proportion of patients receiving appropriate medication as defined by the NSF. The pharmacist-led service was more expensive than standard care.

Pharmacy-Based Provision of Pharmaceutical Care

investment in this
of healthcare

Medication reviews 2012

Alison Blenkinsopp,¹ Christine Bond² & David K. Raynor³

¹School of Pharmacy, University of Bradford, Bradford BD7 1DP, ²Centre of Academic Primary Care,

showing an increase in hospital admissions. Robust health economic studies of medication reviews remain rare. However a review of cost-effectiveness analyses of medication reviews found no studies in which the cost of the intervention was greater than the benefit.

gest that the MRF service is cost effective.

What do we know?

- Medication reviews identify Drug Related Problems, improve compliance and may increase patient safety
- Is there any overall savings?
- Agreement between the Association of Danish Pharmacies and Ministry of Health
- Pharmakon received a request to design, carry out and analyse a large cost-utility study in Denmark
- Purpose:

To generate evidence for policymakers to make a valid decision on the use of medication reviews

Medication review model and study design

- Models
 - PCNE
 - 1,2a, 2b and 3
- Design
 - Randomised
 - Control-group
 - Follow-up
 - Out-come measures
- Power
 - Based on the primary outcome measure (largest size)

Clinical outcome measures

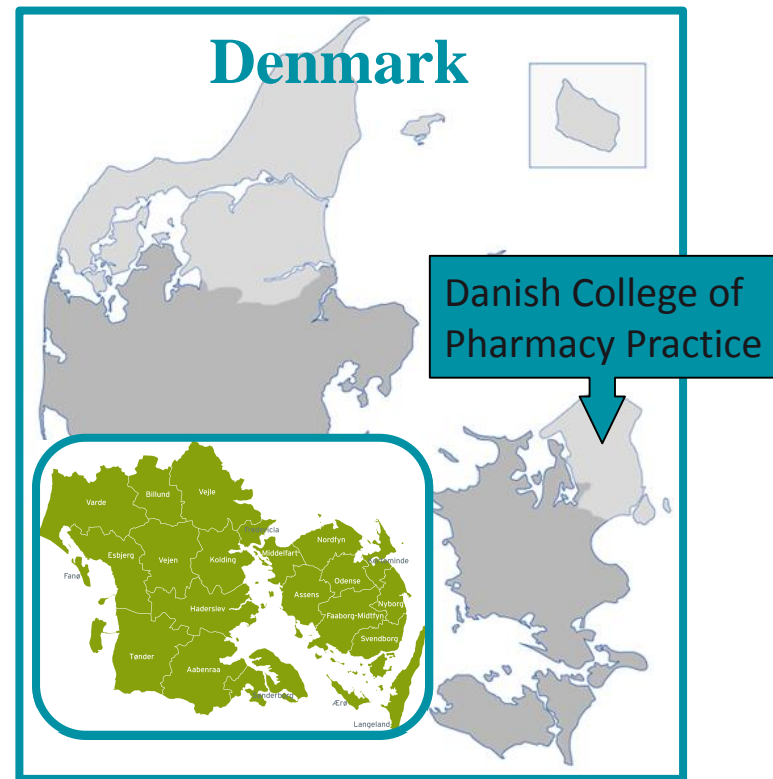
- Mortality
- No of hospital admissions
- Length of hospitalisation
- Re-admissions
- Number of Accident & Emergency visits
- Number of general practitioner visits
- Number of falls
- Health related Quality of Life

How to measure outcomes?

Next

Medication Review in the Sourthern region of Denmark

Medication review design in Southern Region of Denmark



from the Region of Southern
Denmark.

Study setting

• 28

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•

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Patient inclusion criteria

• 65 years or older

• Using 5 or more prescribed medications

• Community dwelling elderly

• Not receiving any council

assisted medication care at home




Intervention

- Medication review
- Protocol from the Association of Danish Pharmacies was applied by certified pharmacists
- Type 2A (PCNE)
- Delivered by community pharmacy in private consultation area
- Identified Drug Related Problems (DRP) will be referred to the general practitioner

„Intermediate“

Type 2a) Medication history + patient interview

- MUR, Polymedication-Check
- „Brown Bag“-Method

Medi- cation history	Patient	Clinical data	Information source
+	+		

Messerli 2013

Outcome measures	Data source
Costs related to visits to general practitioner	Danish National Health Service Register
Costs related to visits to accident & emergency departments	Danish National Health Service Register
Costs related to hospital admissions*	Danish National Health Service Register
Time spent on medication review	Pharmacy
Health Related Quality of Life (EQ-5d)	Pharmacy
Number, type and cost of medicine used	Register of Medicinal Product Statistics

Additional points of study:

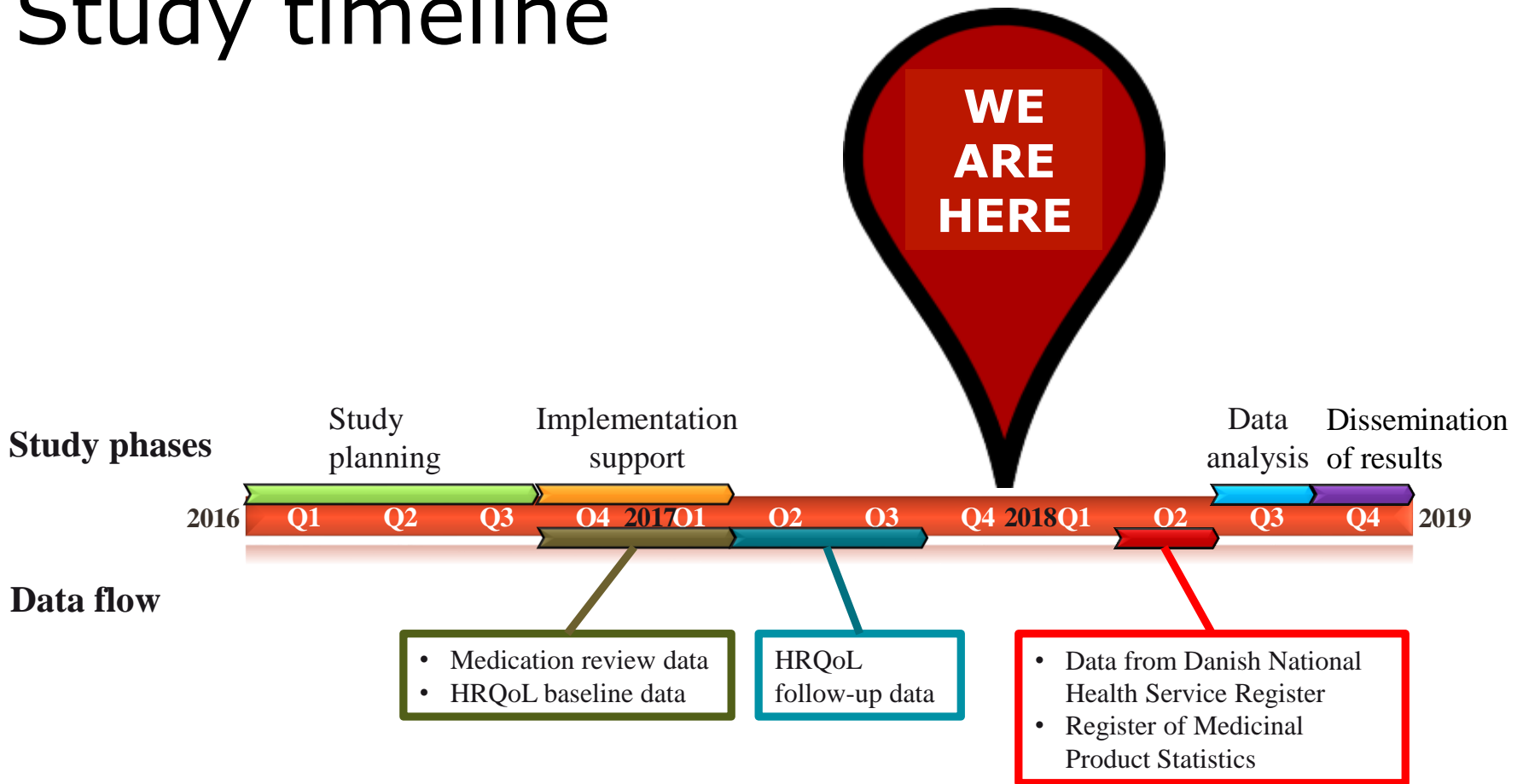
- Implementation
- Proces outcomes

Preliminary descriptive data (n=996)

Gender	Number	Age (average years)	Medicines (average no)	Medical conditions (average no)
Total/average	996	75,5	9,0	3,4

Quality of life follow up data (n=949)

Study timeline



Next

Evaluation of the implementation of the Medication Review Service in the Region of Southern Denmark

Aim

- To evaluate how the pharmacies implemented the medication review service and perceived the support package

Study setting

- 28 community pharmacies
- 1-5 pharmacists per pharmacy
- 1,000 patients
- Medication reviews conducted Sep 2016 – Feb 2017
- Evaluation May – June 2017

Methods

- An evaluation was carried out after the 6-month study period
- A survey
 - Collaboration
 - Patient experiences
 - Working with the intervention
 - Future perspective
- Two focus group interviews were conducted
 - 7 pharmacists
 - 4 pharmacy owners
 - Qualifying the results from the survey

Support package

- Activities

- Kick-off seminar
- Project-coach
- Bimonthly phone meetings
- Monthly status e-mails
- Hotline support
- Benchmarking

- Tools

- Recruitment, including recruitment pitch and customer information leaflet
- Progress calendar
- SharePoint site for data registration
- Instructions for data registration
- Toolbox for medication review
- Communication template for summary of results to customer and general practitioner (GP)



Collaboration – at the Pharmacy



- Planning and coordination were initiated in a collaboration between the pharmacy management and the medication review pharmacists
- Pharmacy staff were informed at staff meetings
- All pharmacy staff recruited patients for the project
- Difficult to motivate staff not deeply involved in the project
- Lack of support from management and engagement from colleagues could result in feeling of loneliness

Collaboration – with General Practitioners



- GPs were informed either by written communication, by phone or in person
- Pharmacies experienced less resistance to the project than anticipated
- Frustration - It was difficult for pharmacies to obtain feedback from GPs on their suggestions to optimise patients' medication
- Improved feedback - some GPs have subsequently been more positive
- Patient becomes squeezed - poor collaboration between GP and patient
- A good understanding of the positive effect on patients' medication safety existed among GPs where a good collaboration already existed between GP and pharmacy

Pharmacy-evaluated patient experiences



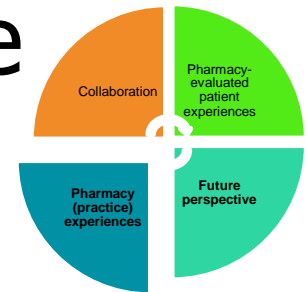
- Pharmacies reported that their patients expressed an increased feeling of safety after medication review due to certainty that they
 - used the correct medicine at the right dose
 - experienced their medications did not interact in a dangerous way
 - gained an understanding about why medication is important
 - felt better prepared for future communication with general practitioner
- Patient-cases
 - Dose adjustment of thiazid resulted in reduction of dizziness
 - Discontinuation of amlodipin solved problem with peripheral edema
 - In collaboration with their respective GP, two patients managed to discontinue their use of benzodiazepines
- Pharmacies have had further requests for medication reviews after the end of study period

Pharmacy (practice) experience Delivering Medication Review



- Exciting, challenging and good use of the pharmacists' professional skills
- More time-consuming than anticipated
- Finally, a chance to evaluate the patients' medicine thoroughly
- The medication review service shows patients/customers what skills are available at the pharmacy
- Surprisingly easy to recruit participants
- Results in professional pride among pharmacists

Pharmacy (practice) experience – Project support



- Implementation needed to be very practical, focusing on life at the pharmacy
- It was useful to have a kick-off seminar
- Easy access to support facilitated implementation
- A theoretical implementation strategy is hard to use for pharmacists
- Continuous support from project-coach facilitated process and increased motivation to deliver data

Future perspectives



- Remuneration
 - Very few patients can pay the full price for the Medication Review Service – full remuneration should be considered
- GP involvement
 - Through the project, pharmacies have identified GPs positive to collaborate
 - Future involvement with GPs is still a very important issue
- Pilot of solutions prior to implementation can optimise future projects
- The project has facilitated new projects/contracts for a couple of pharmacies

Top 3 medication review materials

1. Toolbox for medication review (what does that include?)
2. Medication review instructions
3. Quality assurance for medication review

Top 3 project support tools

1. Project coach easy accessible
2. Kick-off seminar
3. Status emails

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Research and development

