

Available online at www.sciencedirect.com

SciVerse ScienceDirect

journal homepage: www.elsevier.com/locate/jval

ORIGINAL RESEARCH

Economic Evaluation

Dementia Care in the General Practice Setting: A Cluster Randomized Trial on the Effectiveness and Cost Impact of Three Management Strategies

Petra Menn, PhD^{1,*}, Rolf Holle, PhD¹, Simone Kunz, PhD¹, Carolin Donath, Dr. rer. nat.², Jörg Lauterberg, PhD³, Reiner Leidl, PhD¹, Peter Marx⁴, Hilmar Mehlig⁵, Stephan Ruckdäschel, PhD⁶, Horst Christian Vollmar, PhD^{7,8}, Sonja Wunder, PhD⁹, Elmar Gräßel, MD²

¹Helmholtz Zentrum München, Neuherberg, Germany; ²Psychiatric University Clinic Erlangen, Erlangen, Germany; ³Federal Association of the AOK, Berlin, Germany; ⁴Pfizer Deutschland GmbH, Berlin, Germany; ⁵Eisai GmbH, Frankfurt, Germany; ⁶HealthEcon AG, Basel, Switzerland; ⁷DZNE, German Center of Neurodegenerative Diseases, Witten, Germany; ⁸Institute of General Practice and Family Medicine, Witten/Herdecke University, Witten, Germany; ⁹AOK Bavaria - Health insurer, Nürnberg, Germany

ABSTRACT

Objective: To compare a complex nondrug intervention including actively approaching counseling and caregiver support groups with differing intensity against usual care with respect to time to institutionalization in patients with dementia. **Methods:** Within this three-armed cluster-randomized controlled trial, 390 community-dwelling patients aged 65 years or older with physician-diagnosed mild to moderate dementia and their caregivers were enrolled via 129 general practitioners in Middle Franconia, Germany. The intervention included general practitioners' training in dementia care and their recommendation of support groups and actively approaching caregiver counseling. Primary study end point was time to institutionalization over 2 years. In addition, long-term intervention effects were assessed over a time horizon of 4 years. Secondary end points included cognitive functioning, (instrumental) activities of daily living, burden of caregiving, and health-related quality of life after 2 years. Frailty models with strict intention-to-treat approach and mixed linear models were applied to account for cluster randomization. Health care costs

were assessed from the societal perspective. **Results:** After 2 (4) years, 12% (24%) of the patients were institutionalized and another 21% (35%) died before institutionalization. No significant differences between study groups were observed with respect to time to institutionalization after 2 and 4 years (P 0.25 and 0.71, respectively). Secondary end points deteriorated, but differences were not significant between study groups. Almost 80% of the health care costs were due to informal care. Total annual costs amounted to more than €47,000 per patient and did not differ between study arms. **Conclusion:** The intervention showed no effects on time to institutionalization and secondary outcomes.

Keywords: basic and instrumental activities of daily living, burden of care, caregiver support groups, family counseling, health-related quality of life, informal care, time to institutionalization, MMSE.

Copyright © 2012, International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Published by Elsevier Inc.

Introduction

Dementia is one of the most common diseases in older people and a major cause of disability and mortality [1]. Currently, about 7% or 1.2 million people of the German population aged 65 years and older suffer from dementia [2], and prevalence rates in other European countries have been estimated to range between 6% and 9% [3]. Because of rising life expectancy, prevalence is expected to further increase over the next decades. Dementia is associated with a high societal and economic burden. In an ageing society in which soon a third of the population will be older than 65 years, this burden will increase even more,

with serious consequences on health care systems and society in general. High costs for the health care system are associated with dementia care, especially after patients have been institutionalized. From a societal perspective, costs before institutionalization are substantial due to the high cost of informal care [4]. Most patients with dementia who live in their home environment receive informal care from family members, neighbors, or friends [5]. Mostly, patients as well as informal caregivers wish to extend the time the patient lives at home [6], which would also relieve the cost burden on health care systems. It is therefore important to support informal caregivers to ensure care for the increasing number of patients with dementia in the future.

* Address correspondence to: Petra Menn, Institute of Health Economics and Health Care Management, Helmholtz Zentrum München, Ingolstädter Landstr. 1, 85764 Neuherberg, Germany.

E-mail: petra.menn@helmholtz-muenchen.de.

1098-3015/\$36.00 – see front matter Copyright © 2012, International Society for Pharmacoeconomics and Outcomes Research (ISPOR).

Published by Elsevier Inc.

<http://dx.doi.org/10.1016/j.jval.2012.06.007>

In dementia care, it is of salient importance to understand to which extent sustainable support by informal care is able to extend the time the patient lives at home. In addition to medical therapy, guidelines for patients with dementia living at home include nonpharmaceutical measures such as counseling and support groups, both to delay institutionalization and to relieve caregiver burden. However, several international studies evaluating the effect of such nonmedical interventions on institutionalization have yielded inconclusive results: While Mittelman et al. [7] observed a significant delay in nursing home placement following a caregiver support intervention in a study with caregivers participating at least twice in individual counseling, others found no effect of case management or collaborative care for caregivers on the rate of institutionalization [8–10].

Meta-analyses have also been conducted to analyze the effect of support programs for caregivers of patients with dementia, and findings of Spijker et al. [11] suggest that these programs increase time to institutionalization, with a mean difference of 4.9 months. Limiting this analysis to the best-quality studies, however, again yielded a nonsignificant difference in time to institutionalization. Another meta-analysis concluded that multicomponent interventions reduce the risk for institutionalization but did not assess time to institutionalization [12].

With respect to caregiver burden, no significant effect of case management was observed in the MADDE study [13], while Pinquart and Sorensen [12] found a significant effect of multicomponent interventions in their meta-analysis. Also, disease management programs showed a positive effect on patients' health-related quality of life [14]. In sum, evidence remains inconclusive on how caregiver support influences the patient's time to institutionalization.

The aim of this study was to compare a complex nondrug intervention including counseling and caregiver support groups against usual care in terms of time to nursing home placement. In contrast to the studies mentioned above, participants were not obliged to participate in the caregiver support groups or counseling in order to enhance the generalizability of results to normal dementia care. The main research questions were threefold and were addressed by the primary (1), secondary (2), and economic analyses (3): 1) Is a complex nondrug intervention for patients with dementia living at home, their caregivers, and doctors more effective than usual care with respect to postponement of nursing home placement? 2) Does the intervention have an effect on disease progression and on caregiver burden? 3) If the intervention should prove to be effective, is it also cost-effective from a societal perspective?

Methods

Study

The German IDA (Initiative Demenzversorgung in der Allgemeinmedizin, Dementia Care Initiative in Primary Practice) project was designed as a three-armed cluster-randomized trial in which patients with dementia and their informal caregivers were recruited by general practitioners (GPs). Patients in the study region of Middle Franconia, Bavaria, Germany, were included if they had physician-diagnosed mild or moderate dementia, had a Mini-Mental State Examination (MMSE) score ranging from 10 to 24, were at least 65 years old, and were members of the AOK Bavaria - Health insurer. Patients were excluded if they had terminal illness, if nursing home placement was already planned, or if they were not able or not willing to give informed consent. Severity of dementia was determined with the MMSE, with a score of 18 to 24 indicating mild dementia and a score of 10 to 17 indicating moderate dementia. Signed informed consent of patients and informal caregivers was required before study inclusion. Study recruitment took place

from June 2005 to December 2006, and the duration of the intervention phase was 2 years. To also assess possible long-term intervention effects, data on institutionalization and death were collected over a time horizon of 4 years. The study was approved by the Ethics Committee at the Bavarian Chamber of Physicians (No. 05029, date of approval: May 30, 2005) and is in compliance with the Helsinki Declaration.

Randomization

IDA is a cluster-randomized study where the general practices are the clusters and thus the units of randomization. If two or three GPs from the same group practice wanted to participate in the study and attended the training course, they were randomized into the same study arm. GPs were randomly assigned to the three study arms by permuted blocked randomization, which was stratified by study region and type of practice (single vs. group). The randomization was carried out by the statistics and data center by using an allocation ratio of 1:1:1 as described in the study protocol [15].

Intervention

Training of GPs

To ensure that patient inclusion did not differ systematically across intervention groups, GPs in all study groups participated in a training course on dementia diagnosis that covered basic information about dementia, anamnesis and physical examination, laboratory diagnostics, and psychometric tests (120 minutes). GPs were then informed to which study arm they had been randomized.

In group A, drugs and nonmedical treatment options were not part of the training, and so this level of knowledge served as a proxy for the general status quo. This group served as a control group in which patients received usual care. GPs in the two intervention groups B and C additionally received training on evidence-based dementia treatment (140 minutes), which was based on the dementia guideline for GPs from the Witten-Herdecke University (<http://www.evidence.de>) and the therapy recommendations of the Pharmaceutical Commission of the German Medical Association. It contained information about interfaces in the German health care system, non-medication-based treatment, information and counseling of caregivers, medical treatment options, therapy of noncognitive disorders, and specific problems. The therapeutic and diagnostic part of the training was given by five neurologists or psychiatrists with proven gerontopsychiatric expertise. A more detailed description has been published elsewhere [15].

Recommendation of support groups and family counseling

In groups B and C, GPs suggested that caregivers should attend a caregiver support group that offers professional supervision and a psychoeducational element to improve caregivers' competencies and that holds at least 10 formal meetings per year [15].

In addition, GPs recommended caregiver counseling beginning either at baseline (study arm C) or after the 1-year follow-up (study arm B). Following the concept of Counselors Contact Caregivers, the counselors contacted caregivers to establish a direct personal contact, and they used case and care management to support caregivers so that the patient could remain in the domestic environment as long as possible. Four state-registered nurses or nurses trained in the care of the elderly with several years of experience in psychogeriatric care offered counseling by actively approaching the family by using elements of case management. Topics included the physical and the emotional situation of the patient and the caregiver, the general framework, caregiving activities, and social support. Actively approaching the caregivers should enable earlier planning of assistance than if family members need to establish contact.

Download English Version:

<https://daneshyari.com/en/article/987735>

Download Persian Version:

<https://daneshyari.com/article/987735>

[Daneshyari.com](https://daneshyari.com)