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Conference Abstract

Evidence-based policy making: how cost-effective are disease management programs in the Netherlands?

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Abstract

Background: In the Netherlands, a recently established regulation introduced a bundled payment system to promote disease management programs (DMPs) for patients with diabetes mellitus type two (DM), chronic obstructive pulmonary disorder (COPD) or at risk for a cardiovascular disease (CVR). Although, the wide-scale implementation of DM-DMPs was smooth and successful, the uptake of DMPs for COPD and CVR is still troublesome. This is because health insurers, which contract DMPs from care groups, are yet to be convinced about the financial attractiveness of these programs. Therefore, the provision of evidence about the cost-effectiveness of DMPs is eminent for the successful implementation of integrated chronic care in the Netherlands.

Objectives: The aim of the study was to compare the costs and outcomes of various DMPs, to explore their variability and to identify potential determinants.

Methods: We investigated the 1-year changes in costs and effects of 16 DMPs for CVR, COPD, and DM. We also explored the within-DMP predictors of these changes. Finally, a cost-utility analysis was performed from the healthcare and societal perspective comparing the most and the least effective DMP within each disease category.

Results: This study showed wide variation in development and implementation costs between DMPs (range:€16;€1,709) and highlighted the importance of economies of scale. Changes in health care utilization costs were not statistically significant. DMPs were associated with improvements in integration of CVR care (0.10 PACIC units), physical activity (+0.34 week-days) and smoking cessation (8% less smokers) in all diseases. Since an increase in physical activity and in self-efficacy were predictive of an improvement in quality-of-life, DMPs that aim to improve these are more likely to be effective. When comparing the most with the least effective DMP in a disease category, the vast majority of bootstrap replications (range:87%;100%) pointed to cost

savings, except for secondary prevention of CVR-DMPs (21%). QALY gains were small (range:-0.001;+0.019) and surrounded by great uncertainty.

Conclusions: This study of the short-term effects of DMPs found that the implementation of DMPs was associated with improvements in integration of care and lifestyle behaviour, such as physical activity and smoking, of patients with CVR, diabetes and COPD. Since an increase in physical activity and an increase in self-efficacy were predictive of an improvement in quality-of-life, DMPs that aim to improve these are more likely to be effective. This study has also shown the wide variation in development and implementation costs between DMPs and pointed at the importance of economies of scale. On this short-term we have not found statistically significant cost savings due to DMPs, but it is likely that it takes more time before the improvements in care lead to reductions in complications and hospitalizations.

Keywords

decision support, empirical evidence, disease management programs, cost-effectiveness, coordinated care