Associations between Low-value Medication in Dementia and Healthcare Costs

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Abstract
Background: Low-value medication (Lvm) provides little or no benefit to patients may be harmful and wastes healthcare resources. However, there is evidence from the literature that Lvm is highly prevalent in age-associated mental illnesses, such as dementia. Evidence about the financial consequences of Lvm among people living with dementia (PwD) is limited. This study analyzed the association between receiving Lvm and healthcare costs from a payers’ perspective.

Method: This analysis is based on data of 516 community-dwelling PwD. In total, 14 Lvm were extracted from 1) dementia-specific guidelines, 2) the German equivalent of the Choosing Wisely campaign, and 3) the PRISCUS list. Healthcare utilization was retrospectively assessed via face-to-face interviews with PwD, caregivers, and professional care staff and monetarized by standardized unit costs to calculate costs from a payer perspective. Associations between Lvm and healthcare costs were analyzed using multiple linear regression models.

Result: Every third person living with dementia (n = 159, 31%) received Lvm. PwD who received Lvm were less cognitively impaired (Mini Mental State 23.0 vs. 21.7, p = 0.013). To receive Lvm was associated with higher medical care costs (b = 2,520€; CI95% 1,252€ – 3,788€, p < 0.001), particularly due to higher prevalence of in-hospital treatment (b = 1,576€; CI95% 424€ – 2,728€, p = 0.007) and higher cost for medication (b = 784€; CI95% 466€ – 1,101€, p < 0.001).

Conclusion: Lvm was very prevalent, more likely to occur in the early stages of dementia and can cause financial harm for payers due to higher costs for in-hospital care and medications. Further research is required to derive measures to prevent cost-driving Lvm in primary care and move health expenditures towards higher-value resource use.