The summary of the clinical study report will be replaced by the full clinical study report when the publication is accepted for publication or no later than 01/04/2021

Efficacy, feasibility and acceptability of the OptiMEDs tool for multidisciplinary medication review in nursing homes.

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Abstract

Aim(s): Exploring efficacy, feasibility and acceptability of a complex multifaced intervention (OptiMEDs) supporting multidisciplinary medication reviews in Belgian nursing homes (NHs).

Methods: A pilot study in 2 intervention, 1 control NH was held, involving dementia and non-dementia NH residents (>65 years). OptiMEDs provided automated assessment of possible inappropriate medications (PIMs) and patient-specific nurse observation lists of potential side-effects. Medication changes were evaluated one month after the medication review. Feasibility and acceptability was collected via surveys among the health-care professionals. Trial registration NCT04142645, 31/10/2019.

Results: Participants (n=148, n=100 in the intervention NHs) had a mean age of 87.2 years, with 75.0% females and 49.3% non-dementia patients. Prevalence of PIM use was 84.7% and of potential medication side-effects 84.5%, (range 1-19 per resident).

One month after the intervention, the medication use decreased in 35.8% and PIM use in 25.9% of surviving intervention NH residents (n=88). GPs changed more medications when side-effects were observed (42% when side-effects present versus 12% when no side-effects, p=0.019).

Median workload for nurses was 45 minutes, 20 for pharmacists, and 8 for GPs. User satisfaction for the OptiMEDs tool was high (n=33, median score of 8, IQR 6 -8), with GPs (n=19) showing the highest appreciation. Nurses (n=9) reported a median score on the System Usability Scale of 70 (IQR 55 – 72), with lower scores for learnability aspects.

Conclusion: The OptiMEDs intervention was feasible and user-friendly, showing decreases in the medication and PIM use; without affecting patient safety. A cluster-randomized trial is needed to explore impact on patient-related outcomes.