

## CONFERENCE ABSTRACT

# Integrated Care for High-need High-cost Patients: The Comprehensive Care for Multimorbid Adults Program (CC-MAP)

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**Introduction:** Multimorbidity, the co-occurrence of chronic conditions, is common and associated with substantial burden to patients and healthcare systems. Yet, evidence on the effectiveness of multimorbid primary care programs is limited. We aimed to describe the Comprehensive Care for Multimorbid Adults Program (CC-MAP) and report 12-month hospitalization, quality of life and quality of care outcomes.

**Methods:** A cluster-controlled design of primary care clinics in Clalit Health Services, Israel's largest non-for-profit insurer and provider of services. A total of 1200 (600 in each arm) high-risk multimorbid patients were recruited for a study of primary care clinics participating in the intervention and in comparable, usual care, controls. Clinics with a high proportion of patients with high morbidity burden, measured by the Johns Hopkins Adjusted Clinical Groups (JH-ACG)<sup>®</sup> weighted score, were chosen for the intervention and similar clinics were chosen as controls. In each of the intervention clinics, a nurse collaborated with 3-4 primary care physicians (PCP) to care for the 100 highest-risk multimorbid patients. Nurses performed comprehensive assessment; designed an all-inclusive care plan; developed a patient tailored action-plan, provide integration of all services and care transitions, and provided self-management support, and care integration. The PCP collaborated with the CC-MAP nurse, mainly in regards to receiving information from the comprehensive assessment she performed and in the joint creation of the care plan and its follow-up. Unplanned hospitalizations, self-reported physical component score (PCS) and mental component score (MCS) of the SF-12v2, and quality of care (using the Patient Assessment of Chronic Illness Care, [PACIC]), were assessed 12 months after recruitment.

**Results:** Patients in the control group were not significantly different from patients in the intervention in regards to clinical characteristics and prior hospitalizations. PCS and PACIC scores were significantly higher in the intervention versus controls ( $p < 0.001$ ). No differences were observed on the MCS. Number of unplanned hospitalization days was on average 1 day

shorter in the intervention versus the control groups (significant reduction in multivariate analysis controlling for patient factors,  $p < 0.001$ ) within one year.

**Discussions:** The CC-MAP provides an effective comprehensive approach to reduce unwarranted healthcare utilization and maintain physical status of multimorbid patients.

**Conclusions:** The CC-MAP provides an effective approach to patient selection and care provision for multimorbid patients, resulting in improved care, physical quality of life and reduced unplanned admissions. The program was recently expanded and currently includes 12 clinics in 3 districts.

**Lessons Learned:** This study demonstrates the key features of successful multimorbidity primary care management programs and principles of equitable high-risk multimorbid case selection. The mental health components of the intervention should be strengthened.

**Limitations:** The health care setting in which the study was performed (a large, integrated type of health care delivery system) may not resemble other health care systems. Nonetheless, similar principles of comprehensive multimorbid care management may be generalized.

**Suggestions for future research:** Future research should examine long-term patients' outcomes, as well as the involvement of patient's caregivers' in this process.

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**Keywords:** multimorbidity; primary care; integrated care; comprehensive care

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Erikova, A 2018 Improving access to quality services for vulnerable older people in Kyrgyzstan through engaging volunteers and establishing self-help groups. *International Journal of Integrated Care*, 18(S2): A22, pp. 1-8, DOI: [dx.doi.org/10.5334/ijic.s2022](https://doi.org/10.5334/ijic.s2022)