International Journal of Integrated Care

Berntsen, G et al 2017 Person-centered, cross organizational and multiprofessional team halves mortality risk. The PAtient Centered Care Team (PACT) Study – Preliminary results from a comparative effectiveness study. *International Journal of Integrated Care*, 17(5): A478, pp. 1-8, DOI: dx.doi.org/10.5334/ijic.3798

CONFERENCE ABSTRACT

Person-centered, cross organizational and multiprofessional team halves mortality risk. The PAtient Centered Care Team (PACT) Study – Preliminary results from a comparative effectiveness study

17th International Conference on Integrated Care, Dublin, 08-10 May 2017

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Introduction: Patients with multi-morbidity and complex care-needs typically face multiple care processes, care providers, organizations and specialties over longer periods1. Fragmented care is not only a source of human suffering; it also drives health care costs for this patient group.

Theory and Methods: The PACT project is directed at frail multi-morbid patients with increased risk for emergency hospitalization or re-admission. It is an integrated, multi-professional intervention bridging primary and secondary care while emphasizing a 1) person-centered 2) holistic and 3) proactive approach2.

This is a propensity score matched controlled comparison of PACT versus usual care using routine data from the specialist electronic health care record: age, gender, diagnosis codes (ICD10), episodes of health service utilization. Eligibility criteria were patients >=60 years, referred to and treated by the PACT team (intervention) or an emergency admission in a somatic secondary care ward at the Univ hospital of Northern Norway (controls, approx. 10 500 episodes) in 2015. Primary outcome: inpatient emergency days (InPtEmergDays) in secondary care at 6 months follow-up from start and 6 months from stop of intervention. Secondary: 6-month mortality risk. The propensity score (PS) and Mahalanobis distance (MD) was based on 17 and 3 pre-intervention variables respectively. Control PS had to be within a +/- 0,2 SD caliper of intervention PS to be eligible. Within calipers, we chose the match with closest MD. Poisson and Cox regression was used to calculate adjusted risk ratios (RR) between groups.

Results:

Of 272 PACT episodes of care we excluded 39 (not eligibile), 28 (lacking pre-intervention data) and 22 (no suitable match) leaving 183 PACT episodes, in 177 PACT patients, matched to 183 unique controls. We achieved excellent pre-intervention balance between groups

according to Rubin's criteria3. Participant description: 34% male, average 80 years, 5 long-term ICD-10 diagnoses last year, 4 inpatient emergency days last 30 days prior to intervention.

Primary outcome: PACT patients enjoyed a 30% reduction (p<0,001) in InPtEmergDays in the 6 month follow-up from intervention start. However, in the 6-month follow-up from intervention end, PACT patients showed a 30% (p< 0,001) increase in InPtEmergDays. Secondary outcome: The crude mortality risks in PACT and control patients were 14,3% and 28,4% respectively, giving a Cox Hazard Ratio of 0,46 (p<0,001). Crude mortality risk in excluded PACT-patients was 13% (lacking pre-intervention data) and 14% (no match) respectively.

Discussions: Our study challenges de Bruins review which found no effect of integrated care on mortality4. The positive effect of PACT on InPtEmergDays seems to be lost after intervention end.

Conclusions: PACT provided an initial reduction in InPtEmergDays. The main benefit of PACT is halved risk of death.

Limitations:

As this is not an RCT, unmeasured confounding could bias results.

Suggestions for future research:

How do we sustain and reproduce the life-saving effects of PACT in other settings?

References:

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Keywords: integrated care; mortality; comparative effectiveness research; emergency care; person centered care

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