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One-Slide/Five Minutes Presentation / Ongoing study no results yet

Implementation of blood pressure and blood glucose telemonitoring in elderly patients with hypertension and type 2 diabetes at primary care level in Slovenia

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Background:
Arterial hypertension (AH) and type 2 diabetes (T2D) represent a substantial burden on the public health system, with an exceptionally high prevalence in patients aged ≥65 years. One approach to reduce the increasing prevalence and improve clinical outcomes in patients with AH and T2D could be integrated care supported by telemonitoring of blood pressure (BP) and blood glucose (BG).

Research questions:
This study aims to test the acceptability, clinical effectiveness, and cost-effectiveness of telemonitoring in elderly patients with AH and T2D at the primary care level.

Method:
A multi-centre, prospective, randomised, controlled trial will be conducted. Patients aged ≥65 years with AH and T2D will be randomised in a 1:1 ratio to a mHealth intervention or standard care group. Patients in the intervention group will measure their blood pressure (BP) twice weekly and blood glucose (BG) once monthly. The readings will be synchronously transmitted via a mobile application to the telemonitoring platform, where they will be reviewed by a general practitioner. The primary endpoint will be a change in systolic BP (SBP) and glycated haemoglobin (HbA1c) relative to standard care up to 12 months after inclusion. Secondary endpoints will be a change in diastolic BP, fasting BG, lipid profile, behavioural risk factors and appraisal of diabetes score relative to standard care up to 12 months after inclusion. Acceptability will be assessed quantitatively using the theoretical framework of acceptability tool and qualitatively with semi-structured interviews. Costs will be assessed using a human capital approach where labour and material costs will be evaluated.

Results:
Telemonitoring will result in significant reductions in SBP and HbA1c in the intervention group but will be associated with increased workload and costs.

Conclusions:
This study will provide new evidence for expanding the telemonitoring network at the primary care level and modifying telemonitoring protocols to achieve the best clinical and cost-effective outcomes.

Points for discussion:
What are the advantages and disadvantages of using telehealth in elderly patient populations?

What factors should be considered in establishing a telemonitoring measurement protocol that would be appropriate for the individual and would result in high compliance?

In addition to telemonitoring, what activities should be planned to facilitate patient self-management support?

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