

IMPLEMENTATION OF BP AND BG TELEMONITORING IN THE ELDERLY POPULATION IN PRIMARY CARE: A RIGHT STEP TOWARDS INTEGRATED CARE?

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INTRODUCTION

Arterial hypertension (AH) and type 2 diabetes (T2D) represent a significant burden on the public health system, with an exceptionally high prevalence in patients aged ≥ 65 years. One of the possible solutions to improve disease outcomes, promote integrated care and support self-management in patients with AH and T2D at the primary care level is blood pressure and blood glucose telemonitoring.

INTERVENTION

We conducted a multicentre, prospective, randomised, controlled pilot study. Patients aged ≥ 65 years with AH and T2D were randomised 1:1 to an mHealth intervention or standard care group. Patients in the intervention group measured their blood pressure twice weekly and their blood glucose once monthly. The readings were synchronously transmitted via a mobile application to the telemonitoring platform, where they were reviewed by a general practitioner who indicated changes in the measurement scheme or performed a teleconsultation. Patients in the control group received standard care. The intervention lasted 12 months.

RESULTS

We enrolled 63 patients with a mean age of 71.9 ± 5.0 years, of whom 36 (57.1%) were men. Compared with standard care, we observed an additional reduction in systolic blood pressure of -9.1 mmHg (95% CI -16.5 to -1.7 , $p=0.018$), diastolic blood pressure of -2.3 mmHg (95% CI -6.1 to 1.4 , $p=0.215$) and HbA1c of -0.7% (95% CI -1.2 to -0.1 , $p=0.022$) in the telemonitoring group after 12 months. The intervention proved feasible and acceptable among included health professionals and patients (qualitative methods).

TAKE-HOME MESSAGE

- Telemonitoring is a feasible, acceptable and clinically effective method of remote care for elderly patients.
- The major limitation of remote care in elderly remains the lack of skills in using modern technology.
- To maximise clinical and cost-effective impact, careful patient selection is required (i.e., patients with newly diagnosed disease, poor adherence, poor disease control).

NEXT STEPS

- For further scale-up and implementation, further research is needed to assess the long-term impact of telemonitoring.
- Due to the high implementation costs, other applications of telemonitoring could be tested, with telemonitoring serving only as a short-term educational tool in the hands of registered nurses and primary care physicians during more complex health education interventions.