

OP017 Telemedicine enables a safe shift from examination room based care to personalised care for inflammatory bowel disease: a pragmatic randomised multicenter trial with myIBDcoach

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Background

Inflammatory bowel disease (IBD) is a group of chronic diseases with a heterogenic disease course and therapy response. Tight and personalised control of disease activity, with attention for all aspects influencing activity, is warranted to prevent long-term complications and improve quality of life (QoL). This is challenging given the increasing economic pressure on health systems, moreover since the incidence of IBD is rising. We developed myIBDcoach: the first telemedicine system for IBD patients, regardless of phenotype, severity or treatment. We aimed to evaluate the effect of myIBDcoach on number of outpatient visits, patient-reported quality of care (PRQoC) and health outcomes in a pragmatic, randomised trial.

Methods

From September 2014 to May 2015, all consecutive IBD outpatients in 2 academic and 2 non-academic hospitals in The Netherlands, aged 18 to 75 years, with internet-access and Dutch proficiency, were eligible for inclusion. Patients were randomised (1:1) to use of myIBDcoach (intervention group) or standard care (control group) and followed for 12 months. Patients using myIBDcoach were invited to visit the outpatient clinic at least once a year, or on demand. Data on outpatient visits, flares, corticosteroid use, hospitalisations, emergency visits and IBD-related surgery were collected from the hospital electronic patient record and analysed using multivariate linear regression analysis. At baseline and 12 months, patients were requested to fill out a questionnaire including PRQoC, QoL (SIBDQ), adherence (MMAS-8) and self-efficacy (IBD-SES). Questionnaire data were analysed using linear mixed models.

Results

In total, 465 patients used myIBDcoach and 444 continued standard care. The mean number of outpatient visits during follow up was lower in the intervention group compared to the control group (1.55 ± 1.50 and 2.34 ± 1.64 ; $p < 0.001$). After 12 months, both groups reported high scores on PRQoC on a VAS-scale, respectively 8.16 ± 1.37 and 8.27 ± 1.28 ($p = 0.411$). The mean number of hospitalisations was lower in the intervention group compared to the control group (0.05 ± 0.28 and 0.10 ± 0.54 ; $p < 0.001$). No differences were observed in flares, corticosteroid use, emergency visits or surgeries. Patients using myIBDcoach reported higher medication adherence rates ($p < 0.001$), higher, but not significant, QoL ($p = 0.057$) and similar self-efficacy scores ($p = 0.572$).

Conclusion

This pragmatic trial showed that telemedicine through myIBDcoach was safe, reduced outpatient visits and hospitalisations and improved medication adherence with equal PRQoC compared to standard care. MyIBDcoach monitors disease activity, patient reported outcomes and drug side-effects and may therefore be used to reorganise IBD-care enabling value based healthcare.