
primary studies - published RCT

A smartphone application for reporting symptoms in adults with cystic fibrosis improves the detection of exacerbations: Results of a randomised controlled trial.

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Study design (if review, criteria of inclusion for studies)

Randomised controlled trial

Participants

60 patients with CF (29 female, aged [mean+/-SD] 31+/-9years, FEV1 60+/-18% predicted)

Interventions

Participants were randomised to intervention (use of the app weekly or sooner if symptoms had worsened) or control (usual care).

Outcome measures

The primary outcome measure was the number of courses and days of intravenous (IV) antibiotics.

Main results

Over the 12-month follow-up, there was no clear effect of the app on the number of courses of IV antibiotics (incidence rate ratio [IRR] 1; 95% confidence interval [CI] 0.6 to 1.7), however number of courses of oral antibiotics increased (IRR 1.5; 95% CI 1.0 to 2.2). The median [IQR] time to detection of exacerbation requiring oral or IV antibiotics was shorter in the intervention group compared with the control group (70 [123] vs. 141 [140] days; $p=.02$). No between-group differences were observed in other outcomes.

Authors' conclusions

The use of an app reduced time to detect respiratory exacerbations that required antibiotics, however did not demonstrate a clear effect on the number of courses of IV antibiotics.

<http://dx.doi.org/10.1016/j.jcf.2019.09.002>

See also

J Cyst Fibros. 2019 Sep 12. pii: S1569-1993(19)30887-2. doi: 10.1016/j.jcf.2019.09.002.

Keywords

adult; Child; Adolescent; telemedicine; non pharmacological intervention - psyco-soc-edu-org; Home; non pharmacological intervention - devices OR physiotherapy; Organization;