NHSEED - - Economic Study or Review

An Early Health Economic Analysis of the Potential Cost Effectiveness of an Adherence Intervention to Improve Outcomes for Patients with Cystic Fibrosis.

Code: PM28337719 **Year:** 2017 **Date:** 2017 **Author:** Tappenden P

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

A state transition model was developed to assess the cost effectiveness of the intervention

Participants

CF Patients

Interventions

An intervention aimed at increasing patient adherence to nebulised and inhaled antibiotics compared with current CF care, in advance of the forthcoming CFHealthHub randomised controlled trial (RCT)

Outcome measures

Cost-effectiveness. The model estimated the costs and health outcomes for each option from the perspective of the UK National Health Service and Personal Social Services over a lifetime horizon. Health gains were valued in terms of quality-adjusted life-years (QALYs) gained. Forced expiratory volume in 1 second (FEV1) trajectories were predicted over three lung function strata: (1) FEV1 >/=70%, (2) FEV1 40-69% and (3) FEV1

Main results

If effective, the adherence intervention is expected to produce an additional 0.19 QALYs and cost savings of pound 64,078 per patient. Across all analyses, the intervention dominated current care. Over a 5-year period, the intervention is expected to generate cost savings of pound49.5 million for the estimated 2979 patients with CF with Pseudomonas aeruginosa currently aged >/=16 years in the UK. If applied to a broader population of adult patients with CF receiving any nebulised therapy, the expected savings could be considerably greater.

Authors' conclusions

If effective, the adherence intervention is expected to produce additional health gains at a lower cost than current CF care. However, the economic analysis should be revisited upon completion of the full RCT. More generally, the analysis suggests that considerable gains could be accrued through the implementation of adherence interventions that shift care from expensive hospital-based rescue to community-based prevention.

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See also

Pharmacoeconomics. 2017 Mar 23. doi: 10.1007/s40273-017-0500-x.

Keywords

Self-Management; Organization; non pharmacological intervention - psyco-soc-edu-org;