



Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. The main objectives of this report are to:

1. Determine the quantity and quality of evidence available for a technology of interest.
2. Identify any gaps in the evidence/ongoing evidence collection.
3. Inform decisions on whether a technology warrants fuller assessment by Health Technology Wales.

Topic:	myAsthma app for the management of asthma in adult and adolescents
Topic exploration report number:	TER051

Introduction and aims

myAsthma (my mhealth ltd) is an app designed to aid self-management for people with asthma. It provides education and training information, symptom and assessment tracking. It also allows clinicians to remotely access information about patients and communicate with them. myAsthma is suitable for users aged 12 years or older.

Health Technology Wales researchers searched for evidence on the effectiveness of myAsthma as a self-management tool for people with asthma.

Summary of findings

myAsthma is a digital health technology. Applying the [Evidence Standards Framework for Digital Health Technologies](#) to myAsthma indicates that it would be classified as a Tier 3a technology. As evidence of clinical effectiveness, digital health technologies of this type should have been assessed as part of high quality observational or quasi-experimental studies demonstrating relevant outcomes. These studies should present comparative data.

We did not identify any published evidence assessing the effectiveness or economic impact of the myAsthma app for the management of asthma. A UK-based randomised trial of myAsthma is ongoing.

Evidence

We did not identify any published evidence assessing the clinical effectiveness or economic impact of the myAsthma app for the management of asthma. Some evidence was provided by

the manufacturer measuring the effectiveness of similar self-management tools in people with COPD, but the outcomes reported are not directly applicable to asthma.

We identified one ongoing UK-based trial of myAsthma, alone or in combination with access to the Online Doctor remote consultation tool (Lloyds Pharmacy), compared to usual care. This study will collect outcome data on asthma control, medication adherence and quality of life. The estimated primary completion date for the trial is March 2019 but the timescale for availability of results is not known.

Areas of uncertainty

It is unclear what support adults and adolescents currently receive in NHS Wales to assist with self-management of their asthma (i.e. what represents standard care for these patients). NICE and SIGN guidelines recommend supporting patients to self-manage their asthma but make no specific recommendations on what interventions should be used to assist with this. It is also unclear what alternative self-management apps for asthma are available. We identified some recent systematic reviews assessing available asthma apps, but none were conducted from the UK perspective and so may not be representative of apps available in the UK.

Conclusions

We did not identify any published evidence assessing the clinical effectiveness or economic impact of the myAsthma app for the management of asthma. One UK-based trial is ongoing and is expected to report relevant outcomes.

Brief literature search results

Resource	Results
HTA organisations	
Healthcare Improvement Scotland:	We did not identify any relevant guidance from this source.
Health Technology Assessment Group	We did not identify any relevant guidance from this source.
Health Information and Quality Authority	We did not identify any relevant guidance from this source.
UK guidelines and guidance	
SIGN	<p>Scottish Intercollegiate Guidelines Network/British Thoracic Society. British guideline on the management of asthma (SIGN 158). A national clinical guideline. First published 2003; revised edition published July 2019. Available at: https://www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/</p> <p>Section 5.0 includes a number of recommendations on self-management, but none specifically recommend the use of any digital technologies.</p>
NICE	<p>NICE Guideline NG80. Asthma: diagnosis, monitoring and chronic asthma management. Published date: November 2017. Available at: https://www.nice.org.uk/guidance/ng80</p> <p>Section 1.10 includes a number of recommendations on self-management, but none specifically recommend the use of any digital technologies.</p>
Secondary literature and economic evaluations	
ECRI	We did not identify any relevant guidance from this source.
Cochrane library	We did not identify any relevant secondary evidence from this source.
Medline	<p>We did not identify any secondary evidence specifically on the my Asthma app. We identified several reviews of interventions to support self-management in people with asthma:</p> <p>1: Normansell R, Kew KM, Mathioudakis AG. Interventions to improve inhaler technique for people with asthma. Cochrane Database Syst Rev. 2017 Mar 13;3:CD012286. doi: 10.1002/14651858.CD012286.pub2</p> <p>.</p> <p>2: Alquran A, Lambert KA, Farouque A, Holland A, Davies J, Lampugnani ER, Erbas B. Smartphone Applications for Encouraging Asthma Self-Management in Adolescents: A Systematic Review. Int J Environ Res Public Health. 2018 Oct 29;15(11). pii: E2403. doi: 10.3390/ijerph15112403</p> <p>.</p> <p>3: Ramsey RR, Caromody JK, Voorhees SE, Warning A, Cushing CC, Guilbert TW, Hommel KA, Fedele DA. A Systematic Evaluation of Asthma Management Apps Examining Behavior Change Techniques. J Allergy Clin Immunol Pract. 2019 Apr 4. pii: S2213-2198(19)30326-5. doi: 10.1016/j.jaip.2019.03.041</p>

Primary studies	
Medline	We did not identify any relevant evidence from this source.
Cochrane library	We did not identify any relevant evidence from this source.
Ongoing studies	
Clinicaltrials.gov	Integrated Digitally Enhanced Care for Long-term Conditions- Asthma (IDEAL). ClinicalTrials.gov Identifier: NCT03511482. Estimated Study Completion Date: 31 March 2019. https://clinicaltrials.gov/ct2/show/NCT03511482
Other	
Evidence provided by the manufacturer	Bourne S, DeVos R, North M, Chauhan A, Green B, Brown T, Cornelius V, Wilkinson T. Online versus face-to-face pulmonary rehabilitation for patients with chronic obstructive pulmonary disease: randomised controlled trial. BMJ Open. 2017 Jul 17;7(7):e014580. doi: 10.1136/bmjopen-2016-014580. North M, Wilkinson T, Bourne S. The impact of an electronic self-management system for patients with COPD European Respiratory Journal Sep 2014, 44 (Suppl 58) 1413. https://erj.ersjournals.com/content/44/Suppl_58/1413
Date of search:	August 2018
Concepts used:	myAsthma, my mhealth, asthma