

Asthma inhaler adherence determinants in adults: systematic review of observational data

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Abstract

Nonadherence to inhaled medication leads to poor asthma control and increased healthcare utilisation. Many studies exploring adherence determinants have been conducted, but summaries of the evidence are scarce. We performed a systematic review of observational research on determinants of asthma inhaler adherence among adults.

We searched for articles in English reporting quantitative observational studies on inhaler adherence correlates among adults in developed countries, published in EMBASE, Medline, PsychInfo and PsychArticles in 1990–2014. Two coders independently assessed eligibility and extracted data, and assessed study quality. Results were summarised qualitatively into social and economic, and healthcare-, therapy-, condition- and patient-related factors.

The 51 studies included mainly examined patient-related factors and found consistent links between adherence and stronger inhaler-necessity beliefs, and possibly older age. There was limited evidence on the relevance of other determinants, partly due to study heterogeneity regarding the types of determinants examined. Methodological quality varied considerably and studies performed generally poorly on their definitions of variables and measures, risk of bias, sample size and data analysis.

A broader adoption of common methodological standards and health behaviour theories is needed before cumulative science on the determinants of adherence to asthma inhalers among adults can develop further.