

THERAPEUTIC ADVANCES in *Drug Safety*

Contents

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rare diseases, with many projects aimed at drug repurposing and numerous partnerships with pharmaceutical firms. **Conclusions:** Artificial intelligence has great potential to accelerate and improve drug development, and its growing use indicates promising advances in the efficiency and precision of the pharmaceutical process. Therefore, AI can become an essential tool for safer, more efficient, and personalized medicine.

Keywords: Artificial Intelligence, Drug development, Patient safety

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Abstract-Post-46 AI in Medicines and Healthcare Products

E-Health strategies to promote treatment adherence in asthma and COPD: A scoping review

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Background: The control of asthma and chronic obstructive pulmonary disease (COPD) depends on adherence to treatment, often administered via inhalation devices ^[1]. The digitalisation of healthcare has been suggested as a viable strategy to promote treatment adherence ^[2,3]. **Objectives:** This scoping review aimed to identify eHealth strategies promoting adherence to asthma and COPD treatment and to map the methodologies

adopted in studies addressing this topic.

Methods: A systematic search was conducted in PubMed and ScienceDirect to identify studies reporting the use of digital interventions applied to patients with asthma or COPD. Experimental and observational studies published between 2015 and 2025, in English or Portuguese, were included. **Results:** A total of 61 studies were identified, describing digital strategies with variable technology, interactivity, and integration with face-to-face healthcare services – 10 addressing the treatment of COPD, 47 for asthma treatment and four for both asthma and COPD. Most studies focused on mobile applications (n=31), followed by smart digital inhalers (n=13) and web-based platforms (n=12). Regarding outcomes, the assessment of the treatment adherence rates was performed in 85% of the studies, while 10% evaluated correct inhaler use. The heterogeneity of assessment methods (personalised feedback, automated reminders, and intake monitoring) limits direct comparison across studies. **Conclusions:** The use of digital strategies to enhance COPD and asthma treatment adherence has been consistently demonstrated. Effective integration of eHealth to improve treatment adherence in asthma and COPD requires personalized feedback, user-centered design, clinical follow-up, and equitable technology access.

Keywords: Digital Health, Treatment Adherence, Respiratory Diseases.

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