

List of ongoing studies reporting using patient-reported outcome instruments to measure adherence to asthma treatment (up to August 27, 2018)

- Aguilar E, Pope N, Lawson K, Wilson J, Bierle H, Montemayor D. Analysis of asthma action plans developed and monitored by pharmacists in a community pharmacy setting. *Journal of the American Pharmacists Association*. 2014;54:e201-e202.
- Astafieva N, Gamova I, Perfilova I, Udovichenko E, Michailova I, Strilez G, *et al*. Adherence to daily controller medication in pregnancy women with persistent asthma. *Allergy: European Journal of Allergy and Clinical Immunology*. 2015;70:346.
- Astafieva NG, Kobzev D. Adaptation of education programmes for elderly patients with asthma. *Allergy: European Journal of Allergy and Clinical Immunology*. 2017;72:390.
- Blum E, Thavarajah K, Smith AL. Optimization of patient-specific inhaler regimens: A pharmacy-pulmonology collaborative pilot program in the ambulatory care setting. *Chest*. 2016;150:635A.
- Bogovin LV, Perelman JM, Kolosov VP, Shabanova AS. The effectiveness of patient education to improve adherence to the asthma treatment. *European Respiratory Journal*. 2016;48.
- Boyd MJ, Elliott RA, Barber N, Mehta R, Waring J, Chuter A, *et al*. The impact of the New Medicines Service (NMS) in England on patients adherence to their medicines. *International journal of pharmacy practice*. 2014;22:66.
- Brandstetter S, Apfelbacher C. Predictors of medication adherence in patients with asthma in primary care in Germany. *Allergy: European Journal of Allergy and Clinical Immunology*. 2015;70:347.
- Brandstetter S, Fischer W, Finger T, Brandl M, Loss J, Pfeifer M, *et al*. Beliefs about medicines and medication adherence: A prospective study in persons with asthma. *Allergy: European Journal of Allergy and Clinical Immunology*. 2017;72:134.

- Calderón JC, Cherrez Ojeda I, Reyes F, Beltrán P, Calero E, Chérrez A. Alexithymia related to control, severity and adherence in asthmatic patients: Pilot study in Ecuador. *Allergy: European Journal of Allergy and Clinical Immunology*. 2016;71:540-541.
- Celebi Sozener Z, Aydin O, Altiner S, Kendirlihan R, Gencturk Z, Celik GE, *et al*. Two components of patient adherence in the treatment of asthma: Regular use and correct inhaler technique. *Allergy: European Journal of Allergy and Clinical Immunology*. 2017;72:421-422.
- Chapman S, Dale P, Svedsater H, Styne G, Vyas N, Price D, *et al*. Adherence to asthma medication and preferences for once-daily treatment: Importance of treatment intrusiveness and patient beliefs. *European Respiratory Journal*. 2016;48.
- Choi B, Lee S, Jung J, Suh D. Impact of patient education on medication on health outcomes and adherence in patients with asthma. *Allergy: european journal of allergy and clinical immunology Conference: 36th annual congress of the european academy of allergy and clinical immunology, EAACI 2017 Finland*. 2017;72:380 - 381.
- Cornia O, Demarche S, Schleich F, Louis R, Van Hees T. Impact of a pharmacist-delivered educational intervention on fractional exhaled nitric oxide in patients with asthma. *American Journal of Respiratory and Critical Care Medicine*. 2018;197.
- Davis J, Trudo F, Siddall J, Bostock T, Small M. Asthma symptoms and health care resource utilization by degree of asthma control in patients adherent to ICS/LABA treatment. *American Journal of Respiratory and Critical Care Medicine*. 2017;195.
- Davis JR, Small M, Trudo FJ, Siddall J, Pike J. Health care resource utilization and work impairment for asthma patients adherent to medium-or high-dosage ICS/LABA fixed combination treatment: Findings from a us real world survey. *Journal of Allergy and Clinical Immunology*. 2017;139:AB59.
- Dima AL, Van Ganse E, Laforest L, De Bruin M. Medication adherence: Placing the 'when' and 'which' in the equation. *Journal of Thoracic Disease*. 2016;8.

- Ding B, Small M, Foden H. The disease burden of mild asthma: Findings from a 2013 real world survey. *European Respiratory Journal*. 2016;48.
- Ding B, Small M, Wang W, Schweikert P. The disease burden of mild asthmatics in China. *European Respiratory Journal*. 2016;48.
- Federman A, Herscher M, Ray M, Busse PJ, Wolf MS, Wisnivesky JP. Characteristics and outcomes of older adults with early versus late onset asthma. *American Journal of Respiratory and Critical Care Medicine*. 2014;189.
- Foot H, La Caze A, Gujral G, Baker P, Cottrell N. Exploring the role of health beliefs in medication adherence in individuals with asthma. *Research in Social & Administrative Pharmacy*. 2016;12:e46-e46.
- Grzeskowiak LE, Rivers K, Roberts-Thomson K, Dekker G, Roy A, Smith B, *et al*. Asthma control and exacerbations during pregnancy: Patterns and predictors among a socially disadvantaged population. *Journal of Paediatrics and Child Health*. 2015;51:66.
- Gutiérrez-Pereyra F, Plaza V, Fernández-Rodríguez C, Melero C, Cosío BG, Entrenas LM, *et al*. Validation of the 'test of the adherence to inhalers' (TAI) for asthma and COPD patients. *European Respiratory Journal*. 2015;46.
- Harrow B, Price D, Pike J, Higgins V, Small M, Piercy J. Establishing the relationship of inhaler satisfaction, adherence, smoking history and allergic rhinitis with patient outcomes: Real world observations in us adult asthma patients. *Value in Health*. 2014;17:A599.
- Hsu YN, Fang CL, Lou YJ, Chen LC. Efficacy of pharmacist intervention and health education in asthma control. *European Journal of Hospital Pharmacy*. 2018;25:A138.
- Janezic A, Locatelli I, Kos M. Medication adherence and health outcomes among asthma patients in Slovenia. *International Journal of Clinical Pharmacy*. 2015;37:415.
- Janezic A, Locatelli I, Kos M. Medication non-adherence and its predictive factors among asthma patients in Slovenia. *International Journal of Clinical Pharmacy*. 2018;40:230-231.

- Janežič A, Locatelli I, Kos M. Does type of glucocorticoid containing inhaler device influence asthma outcomes? *International Journal of Clinical Pharmacy*. 2016;38:1015.
- Khassawneh B, Behbehani NH, Al-Jahdali HH, Al Qaseer A, Gjurovic A, Haouichat H, *et al*. Predictive factors of asthma control in the middle east and north africa. *American Journal of Respiratory and Critical Care Medicine*. 2018;197.
- Khatri B. Study on age-related drug use pattern and assessment of medication adherence in patients with chronic respiratory diseases. *Value in Health*. 2016;19:A560.
- Kirenga B, Muttamba W, Mugenyi L, Katagira W, Nyale G, Lugogo N, *et al*. A prospective cohort study of severe asthma and its determinants in an African population: The African severe asthma program. *American Journal of Respiratory and Critical Care Medicine*. 2018;197.
- Kuwahara N, Suzuki S, Tanaka A, Yokoe T, Ohnishi T, Sagara H, *et al*. Evaluating medication adherence by using ASK-20 in Japanese asthmatic patients. *Allergy: European Journal of Allergy and Clinical Immunology*. 2015;70:348.
- Lee J, Tay TR, Radhakrishna N, Hore-Lacey F, Hoy R, Dabscheck E, *et al*. Medication adherence in a difficult asthma population. *Internal Medicine Journal*. 2016;46:17.
- Lee JXW, Wojtczak H, Wachter AM, Lee M, Burns L, Chen D, *et al*. Understanding asthma medical nonadherence in adult and pediatric populations. *Journal of Allergy and Clinical Immunology*. 2014;133:AB155.
- Lee LK, Lugogo NL, Carpinella C, Ariely R, Gabriel S, Mosnaim G. The economic impact of uncontrolled asthma among treated, adherent patients with persistent asthma. *Journal of Allergy and Clinical Immunology*. 2018;141:AB223.
- MacDonell KK, Gibson-Scipio WM, Lam P, Naar-King S, Secord E. The detroit young adult asthma project: Feasibility and acceptability of a multi-component, technology-based intervention targeting adherence to controller medication. *American Journal of Respiratory and Critical Care Medicine*. 2015;191.
- Makhinova T, Barner J, Brown C, Rascati K, Richards K, Rush S, *et al*. Improving asthma management: Patient-pharmacist partnership program in enhancing therapy adherence and asthma control. *Journal of the American Pharmacists Association*. 2017;57:e1-e142.

- Manfrin A, Thomas T, Krska J. Symptom control and adherence are major issues for asthmatic patients: can they be improved and are they linked? Pharmacoepidemiology and drug safety Conference: prescribing and research in medicines management (UK and Ireland) conference 2016 United Kingdom. 2016;25:18 - 19.
- Manzi J, Wisniewsky J, Federman A, Gao Y, Busse PJ. The effect of age on airway inflammation in younger and older patients with asthma. *Journal of Allergy and Clinical Immunology*. 2015;135:AB180.
- Mastrogiannis D, Della Torre M, DiGiovanni L, Wedoff M. Factors influencing medication adherence in high risk pregnant patients. *Obstetrics and Gynecology*. 2017;129:53S.
- Mazumdar S, Ghosh S, Mukherjee S. Non-adherence to asthma medications: Relation to socio-economic status and asthma education. *European Respiratory Journal*. 2015;46.
- Mendelsohn AB, Tomaszewski EL, Shah AJ. Treatment adherence in patients with asthma taking leukotriene modifiers versus those taking inhaled corticosteroids. *Value in Health*. 2014;17:A178.
- Mosnaim G, Lee LK, Carpinella C, Ariely R, Gabriel S, Lugogo NL. The impact of uncontrolled asthma on quality of life among treated, adherent patients with persistent asthma. *Journal of Allergy and Clinical Immunology*. 2018;141:AB222.
- Moullec G, Rousseau R, Chen W, Sadatsafavi M, Zafari Z, Bekirov A, *et al.* Combined effect of psychological distress and asthma control on productivity loss in patients with asthma: A population-based study. *American Journal of Respiratory and Critical Care Medicine*. 2014;189.
- Murphy VE, Metcalfe TB, Robijn A, Gibson PG, McCaffery K, Jensen ME. Beliefs about medicines and adherence to asthma medication in pregnancy. *Respirology*. 2018;23:151.
- Nct. Effectiveness of an Integrated Care Program on Asthma Control and Inhaled Corticosteroids Adherence. <https://clinicaltrials.gov/show/nct02093013>. 2014.
- Nct. Supporting Asthma Management Behaviors in Aging Adults. <https://clinicaltrials.gov/show/nct02316223>. 2014.

- Nct. Detroit Young Adult Asthma Project. <https://clinicaltrials.gov/show/nct03121157>. 2017.
- Nishiyama Y, Koya T, Hasegawa T, Yoshizawa K, Ueno H, Hayashi M, *et al.* Analysis of asthma patients using the adherence starts with knowledge-12 in Japan. American Journal of Respiratory and Critical Care Medicine. 2018;197.
- O'Connor R, Mindlis I, Hauser D, Hoy-Rosas J, Lopez R, Lurio J, *et al.* Supporting asthma self-management behaviors in aging adults (SAMBA): a randomized clinical trial. Journal of general internal medicine Conference: 41st annual meeting of the society of general internal medicine, SGIM 2018 United states. 2018;33:350.
- Park H, Kim S. Searching the best statistical model predicting asthma exacerbation in elderly. American Journal of Respiratory and Critical Care Medicine. 2018;197.
- Patel P, Annunziata K, Le Calve P, Apecechea M. Conditions with low medication adherence and associated outcomes: An assessment of the United States population. Value in Health. 2017;20:A52-A53.
- Patella V, Florio G. Factors that improve the adherence to medication in asthmatic patients treated with inhalation therapy. World Allergy Organization Journal. 2015;8.
- Perelman JM, Bogovin LV, Shabanova AS, Kolosov VP. Adherence to the treatment of patients with bronchial asthma. European Respiratory Journal. 2015;46.
- Poureslami I, Shum J, Gorrin N, Bayat S, Lester RT, Dorscheid D, *et al.* A randomized controlled trial of a text messaging based intervention versus a written action plan in asthma management: Results from a feasibility study. American Journal of Respiratory and Critical Care Medicine. 2017;195.
- Qingxiu T, Lijun Y. Factors associated with asthma control among outpatients in Beijing. Respirology. 2014;19:192.
- Rawal S, Ali A, Young H. Are self-efficacy and knowledge associated with medication adherence and asthma control in hispanic adults with asthma? Journal of the American Pharmacists Association. 2018;58:e62.
- Ro S, Hojo M, Miyoshi S, Takasaki J, Sugiyama H. Evaluation of the relationship between fraction of exhaled nitric oxide (FENO) and adherence to medication in

- asthma patients using adherence starts with knowledge-20 (ASK-20).
Respirology. 2014;19:67.
- Rusanov DU, Davidovskaya EI. Montelukast vs inhaled corticosteroids in the treatment of mild persistent asthma: Compliance and asthma management. Allergy: European Journal of Allergy and Clinical Immunology. 2014;69:520.
- Samosorn C, Rattanaphan P, Boonsawat W. Innovative tools for improving medication adherence in asthma clinic at Srinagarind Hospital. European Respiratory Journal. 2015;46.
- Shah P, Hussein S, Shafer E, Kshatriya S, Mukherjee K. Patients' perceptions of a community pharmacy-based fractional exhaled nitric oxide screening program and its impact on inhaled corticosteroid adherence rates. Journal of the American Pharmacists Association. 2014;54:e173.
- Shovan P, Sudha J, Mitisha, Chitra, Subbareddy. Assessing the knowledge attitude medication adherence and quality of life among asthma patients in a South Indian tertiary care hospital. Indian Journal of Pharmacology. 2014;46:S24.
- Stebbing AEL, Shereene S, Hameed S. Asthma self monitoring, behaviour modification and medication compliance in comparison to patients with hypertension/high cholesterol and link to asthma hospitalization profile. Respirology. 2014;19:7.
- Steel K, Gibson P, Murphy V. Asthma self-management education and inhaled corticosteroid use during pregnancy and postpartum from 2004 to 2014. Respirology. 2016;21:23.
- Storms WW, Tringale M, Ferro TJ. The impact of expired and empty quick-relief asthma inhalers: The Asthma and Allergy Foundation of America's Asthma Inhaler Design Survey. Allergy Asthma Proc. 2015;36:300-305.
- Takemura M, Nishio M, Fukumitsu K, Takeda N, Ichikawa H, Asano T, *et al.* Optimal cut-off value and clinical usefulness of adherence starts with knowledge-12 (ASK-12) in asthmatic patients taking inhaled corticosteroid. European Respiratory Journal. 2016;48.
- Tangirala NC, Chen L, Wolf MS, O'Connor R, Wisnivesky JP, Federman A. Assessment of self-reported medication adherence to inhaled corticosteroids among adults with

- asthma and chronic obstructive pulmonary disease. *Journal of General Internal Medicine*. 2017;32:S121-S122.
- Trudo FJ, Davis JR, Small M, Siddall J, Pike J. Symptomatic burden of asthma patients adherent to medium-or high-dosage ICS/LABA: Findings from a us real world survey. *Journal of Allergy and Clinical Immunology*. 2017;139:AB97.
- Ul Haq N, Shaheen H, Iqbal Q, Naseem A, Razaq G, Younis M, *et al*. Assessment of medication adherence among patients with non-communicable chronic diseases in Quetta Baluchistan Pakistan. *Value in Health*. 2015;18:A108.
- Ulrik CS, Barnes CB. Adherence with inhaled corticosteroids in asthma: Does pregnancy lead to improved adherence? *American Journal of Respiratory and Critical Care Medicine*. 2014;189.
- Valero A, Ribo P, Giner J, Gutierrez F, Plaza V. Ease of use of inhalers and its impact on treatment adherence and control of asthma. An observational study. *Allergy: European Journal of Allergy and Clinical Immunology*. 2017;72:419.
- Van Ganse E, Dima A, Laforest L, Jacoud F, Herbage S, Texier N, *et al*. Long-term impact of ICs adherence on health outcomes in the ASTRO-LAB cohort. *European Respiratory Journal*. 2016;48.
- Voorhees SE, Nezu CM, Nezu AM, Sherman M, Most J, Sher ER. Inhaled corticosteroid adherence: The role of perceived control of asthma. *Journal of Allergy and Clinical Immunology*. 2018;141:AB60.
- Wisnivesky JP, Goodman E, West E, Harrison D, Crowley L, Katz C, *et al*. Determinants of medication adherence in world trade center rescue and recovery workers with asthma. *American Journal of Respiratory and Critical Care Medicine*. 2017;195.
- Wisnivesky JP, Goodman ER, Crane M, Crowley L, Gao Y, Busse PJ, *et al*. Asthma control, treatment patterns, and self-management among WTC rescue and recovery workers. *American Journal of Respiratory and Critical Care Medicine*. 2015;191.
- Wooster J, Gurney M, Hecht K, Kucera A. Impact of community pharmacist-performed medication reconciliations in post-discharge patients on 30-day hospital readmission rates. *Journal of the American Pharmacists Association*. 2016;56:e92.

Zamora JP, Lavesa LG, Barbero AM, Morente MGD. Evaluation of patient adherence in inhaler treatment using the TAI-test in community pharmacy. *International Journal of Clinical Pharmacy*. 2018;40:491.

Zhang R, Tian Q, Yu L. Study of medication adherence among adult asthmatics in Beijing, China. *American Journal of Respiratory and Critical Care Medicine*. 2015;191.