



THE NOVELTY STUDY

Identifying new dimensions in respiratory disease

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Publication alert:

Treatable traits in the NOVELTY study

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- **Asthma and COPD are multifactorial diseases** requiring **personalised management** that is **currently directed** by the **overall diagnostic label**
- **Treatable traits** have been proposed as one **precision medicine approach**, but their **prevalence** and **relationship** with **diagnosis** and **disease severity** in a **real-world** setting is **unknown**

Objective

To assess how the presence/absence of 30 pre-defined traits relates to the physician-assigned diagnosis and physician-assessed severity of >11,000 patients with asthma, asthma+COPD or COPD in the global, real-world NOVELTY study

30 traits were split into 3 categories:



Pulmonary



Extra-pulmonary



Behavioural/environmental



The presence and absence of traits formed a pattern that can be recognized by clinicians to establish a diagnosis and grade its severity:
Asthma: 10 present, 13 absent
Asthma+COPD: 21 present, 0 absent
COPD: 17 present, 6 absent

Frequent Productive Cough was related to exposures and other respiratory traits in patients with asthma and/or COPD, across all disease severities

Key disease-specific associations with respiratory traits included:
Asthma: allergic and non-allergic rhinosinusitis, nasal sinus polyps and several allergies;
COPD: non-reversible airflow limitation and emphysema

Most traits occurred across all asthma and/or COPD disease labels; patients with asthma+COPD had most traits related with either asthma or COPD

Distribution of traits differed between patients from primary versus secondary care sites; little geographic differences were observed

- This analysis provides the **largest and most granular** characterisation of traits in patients with **airway diseases** in a real-world setting to date
- **Few traits** are **tightly linked** with the disease label of **asthma** (allergic and non-allergic rhinosinusitis, nasal sinus polyps, and several allergies) or **COPD** (non-reversible airflow limitation and emphysema), whereas **many traits occur independently of the diagnostic label**
- **Treatments that target traits**, regardless of diagnosis and severity, may lead to **precision medicine** for **asthma and/or COPD**, and may result in **better patient outcomes**

The NOVELTY study is sponsored by AstraZeneca.

Data for patients from China were excluded from the present analyses due to a change in regulations about data transfer in May 2019. One site in Mexico was also excluded from the present analysis due to eligibility criteria.

COPD, chronic obstructive pulmonary disease; NOVELTY, NOVEL observational longiTudinal study.

Reference

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