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Characteristics and treatment regimens across ERS SHARP severe asthma registries

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The severe asthma population in Europe is heterogeneous and differs in clinical characteristics and treatment. Harmonisation across registries and guidelines is needed and requires collection of same data across cohorts to enable future research in SHARP. http://bit.ly/2krxHPf

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ABSTRACT Little is known about the characteristics and treatments of patients with severe asthma across Europe, but both are likely to vary. This is the first study in the European Respiratory Society Severe Heterogeneous Asthma Research collaboration, Patient-centred (SHARP) Clinical Research Collaboration and it is designed to explore these variations. Therefore, we aimed to compare characteristics of patients in European severe asthma registries and treatments before starting biologicals.

This was a cross-sectional retrospective analysis of aggregated data from 11 national severe asthma registries that joined SHARP with established patient databases.

Analysis of data from 3236 patients showed many differences in characteristics and lifestyle factors. Current smokers ranged from 0% (Poland and Sweden) to 9.5% (Belgium), mean body mass index ranged from 26.2 (Italy) to 30.6 kg·m^{-2} (the UK) and the largest difference in mean pre-bronchodilator forced expiratory volume in 1 s % predicted was 20.9% (the Netherlands *versus* Hungary). Before starting biologicals patients were treated differently between countries: mean inhaled corticosteroid dose ranged from 700 to 1335 µg·day^{-1} between those from Slovenia *versus* Poland when starting anti-interleukin (IL)-5 antibody and from 772 to 1344 µg·day^{-1} in those starting anti-IgE (Slovenia *versus* Spain). Maintenance oral corticosteroid use ranged from 21.0% (Belgium) to 63.0% (Sweden) and from 9.1% (Denmark) to 56.1% (the UK) in patients starting anti-IL-5 and anti-IgE, respectively.

The severe asthmatic population in Europe is heterogeneous and differs in both clinical characteristics and treatment, often appearing not to comply with the current European Respiratory Society/American Thoracic Society guidelines definition of severe asthma. Treatment regimens before starting biologicals were different from inclusion criteria in clinical trials and varied between countries.