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**National and regional drug survival of omalizumab in chronic spontaneous urticaria: A Danish cohort study**

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**Introduction & Objectives:** Omalizumab is an effective biological therapy for chronic spontaneous urticaria (CSU), but its high cost, the unpredictable nature of the disease, and limited long-term management guidance lead to varying treatment approaches. Drug survival (DS) studies may encompass various reasons for discontinuation, and remain a key metric for assessing drug effectiveness, utilization, and cost. However, the impact of varying treatment approaches and different data sources on DS estimates remains unclear.\*\* The objective of this study was therefore to investigate DS of omalizumab in adult patients with CSU in Denmark and assess regional variations using national registry data.

**Materials & Methods:** Data from the Danish National Patient Registry (DNPR) were used to identify patients with CSU who initiated omalizumab treatment, excluding those with only chronic inducible urticaria or concurrent asthma. Analyses on DS were performed using Kaplan-Meier curves, based on the first treatment series, both nationally and stratified by five specialized regional departments.

**Results:** A total of 1,797 patients were analyzed. Median DS time was 2.20 years (95% CI: 2.03 – 2.36). For patients with multiple treatment series, median survival time for subsequent series was shorter at 1.00 year (95% CI: 0.93 – 1.19). Despite some regional variation in treatment approaches, survival curves were similar, with no statistical difference. However, we found considerable variation in DS when comparing administrative registry data with clinical database information.

**Conclusion:** Median survival time of omalizumab in adult patients with CSU was approximately 2 years. Despite regional variation in treatment approaches, DS remains consistent. However, a substantial discrepancy exists between DS estimates from different data sources, emphasizing the need to account for these variations when assessing and interpreting drug utilization.

