

**O31 TRAJECTORIES OF ANXIETY IN CHILDREN YOUNG PEOPLE AND ADULTS WITH RHEUMATIC DISEASES IN THE WAKE OF COVID-19: RESULTS FROM THE COVID-19 EUROPEAN PATIENT REGISTRY**

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**Background/Aims**

Younger and older people with rheumatic diseases may experience increased anxiety during the COVID-19 pandemic, due to the uncertainty regarding their likelihood of contracting the virus, its complications alongside their existing condition and whether their immunosuppressive treatments pose additional risks. This study explored trajectories of anxiety in parents of children and young people (CYP) with rheumatic diseases and adults with rheumatic diseases in the six months following March 2020 during the COVID-19 pandemic.

**Methods**

CYP and adults recruited to the international COVID-19 European Patient Registry, a parent-led, online, self-referred prospective cohort recruiting participants globally, were selected if enrolled within 20<sup>th</sup> March to 17<sup>th</sup> April 2020. Anxiety scores (0-10, 10=Highest anxiety) were collected weekly for up to 28 weeks and denoted parent anxiety in the CYP cohort and self-reported anxiety in the adult cohort.

Group-based trajectory models explored anxiety clusters using censored-normal models in the CYP and adult populations, separately. Linear, quadratic and cubic polynomials were tested within 1 to 10 clusters and optimal models selected based on a combination of model fit (BIC), parsimony and clinical plausibility. Demographic (country, age, gender) and clinical (diagnosis, disease control, respiratory comorbidity, immunosuppressive therapy) information and COVID-19 mitigation behaviours (isolation, distancing, none) were collected at initial enrolment and compared between clusters using Chi-squared, Fisher's exact and Kruskal-Wallis tests.

**Results**

Among 498 CYP and 2640 adults, most were female (65%, 89%) and from the UK (50%, 84%), respectively. The most common diagnoses were polyarticular JIA (37%) and oligoarticular JIA (29%) among CYP and RA among the adults (63%). Respiratory comorbidities were uncommon in the CYP (10%) and adult (17%) cohorts, and most were

taking any immunosuppressive therapies (85%, 87%), respectively. As of March 2020, 88% and 79% were self-isolating, respectively. In both the parents of CYP and adult cohorts, four trajectory clusters were identified with similar patterns: Persistent extremely high anxiety (32%, 17%), persistent high anxiety (43%, 41%), high anxiety that marginally improved (25%, 32%) and moderate anxiety that improved (11%, 10%). Among CYP, few characteristics distinguished the clusters. However, in the adult cohort, clusters with greater and more persistent anxiety were associated with higher levels of respiratory comorbidities, higher use of immunosuppressive therapies, higher initial levels of self-isolation and slightly older age than those with lower or improving anxiety over time.

**Conclusion**

This study reports four trajectories of anxiety during the COVID-19 pandemic that are consistent across parents of CYP with rheumatic diseases and among adults with these conditions. Despite relatively lower risks for CYP, parental anxiety regarding COVID-19 was high and not associated with characteristics of their child or of their child's disease. Among adults with rheumatic diseases, greater anxiety was associated with risk factors potentially associated with COVID-19 morbidity and mortality.

**Disclosure**

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