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Introduction: Black and Latinx patients bear a disproportionate burden of asthma-related morbidity partly due to inadequate healthcare access. Telehealth could improve access, but its impact on asthma outcomes compared to in-person visits in these populations is unknown.

Methods: Black and Latinx adults with moderate-severe asthma were recruited from US clinics, including Puerto Rico for the PREPARE trial. For this ancillary study, 7/19 sites had available EMR data on asthma care appointment setting (telehealth vs. in-person). Participants whose asthma care included telehealth (TH) vs. those with exclusively in-person visits (IP) starting at COVID-19 pandemic onset (3/2020, greater telehealth prevalence) through 4/2021 (last PREPARE exit) were included if 2+ monthly PREPARE surveys were available for the post-index visit period. Asthma control (ACT®) and asthma-related quality of life (ASUI) were compared between TH vs. IP.

Results: Data were available for n=62 TH and n=36 IP participants, with comparable duration of follow-up (6.36 vs. 6.42 months, respectively). TH were more likely Latinx, from the Northeast, employed, only use inhaled corticosteroids as controller therapy, lower BMI, and lower self-reported asthma therapy adherence compared to IP. Before and after adjustment for these baseline differences and for PREPARE treatment assignment and baseline ACT and ASUI scores, TH and IP had comparable follow-up asthma control (ACT 18.43 vs. 18.93, respectively, p=0.519) and asthma-related quality of life (ASUI 0.79 vs. 0.84, respectively, p=0.163).

Conclusion: Asthma control and asthma-related quality of life were comparable between TH and IP after adjustment. TH may represent a valuable asthma care option for Black and Latinx patients.

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OUTCOMES AND IMPACT OF COVID-19 ON INFECTION DIAGNOSIS RATES AMONG PATIENTS WITH PRIMARY IMMUNODEFICIENCY DISEASES

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Introduction: We compared healthcare resource utilization (HCRU) among patients with primary immunodeficiency diseases (PID) in the United States before and after treatment initiation with immunoglobulin replacement therapy. Impact of COVID-19 mitigation efforts on infection diagnosis rates was evaluated.

Methods: De-identified patients with PID who newly initiated treatment with immune globulin infusion (human), 10% (IG10%) during July 1, 2012–August 31, 2019 (main study) were selected from IBM® MarketScan® Databases using diagnosis and prescription codes (exempt from IRB review). Patients were followed for 6 months before (preindex) and after (postindex) their first IG10% claim date. Demographic characteristics were described; pre- and postindex treatment characteristics and HCRU were compared. Infection diagnosis rates during COVID-19 (March 1, 2020–December 31, 2020) and before COVID-19 (March 1, 2019–December 31, 2019) were compared.

Results: The main study included 1497 patients (mean age 43 years, 67% women) who frequently had PID-related comorbidities like asthma (32%). Diagnoses of severe infections decreased after IG10% initiation (20% vs 12%). Infection-related post-index decreases (P<0.001) were observed for inpatient admissions (20% vs 11%) and outpatient services (80% vs 72%). Fewer patients with PID were diagnosed with infections during COVID-19 than before COVID-19 (23% vs 31%).

Conclusion: Treatment with IG10% reduced severe infections and lowered infection-related HCRU by shifting care from inpatient to outpatient settings. As infection rates often differ seasonally, the 0.7-fold decrease in infection diagnoses during March–December 2020 relative to March–December 2019 suggests a reduction in infections among patients with PID during COVID-19, possibly due to isolation and/or decreased reporting to physicians.

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PATIENT-REPORTED EXPERIENCE OF EOSINOPHIL-DRIVEN DISEASES ON ONLINE PLATFORMS: SOCIAL LISTENING ANALYSIS INSIGHTS

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Introduction: Severe eosinophilic asthma (SEA), eosinophilic granulomatosis with polyangiitis (EGPA), and hypereosinophilic syndromes (HES), are eosinophil-driven diseases characterized by persistently high eosinophil numbers that cause damage to tissues and organs. Online discussions relating to SEA, EGPA, and HES, were identified to gain insight into how patients and caregivers use social media to discuss these conditions.

Methods: Posts by patients and caregivers relating to their experiences with SEA, EGPA, and HES, made on social platforms between January 1, 2019 and May 31, 2020 were collected from social media sites. Comments for EGPA and HES were collected in English, French, or German; exploratory analysis comments for SEA were collected in English only. Results were classified into key themes (each post could involve multiple themes) and analyzed.

Results: In total, 509 comments relating to SEA, 746 to EGPA, and 39 to HES, with consent to publish, were identified. Fewer posts relating to HES were included in this analysis due to difficulties obtaining consent. People used social media for discussions with others as an additional support in disease management. Themes were identified for all three diseases (e.g. personal experience, diagnosis) (Table). The most commonly used social media sites were easily accessible, and often commonly used outside of discussing health topics (e.g. Facebook, Twitter, Reddit, and HealthUnlocked).

Conclusion: Online platforms are an important complementary platform for patients with eosinophil-driven diseases to share personal experiences and build a sense of community, which may help patients and caregivers feel empowered when managing these conditions.

Key themes identified in comments from patients and caregivers relating to SEA, EGPA, and HES

Theme, n (%)	SEA (N=509)	EGPA (N=746)	HES (N=39)
Personal experience (including: sharing concerns with other patients and caregivers, challenges and coping methods, feelings of loss of control, frustration, isolation)	444 (87)	577 (77)	39 (100)
Diagnosis (including: misdiagnosis, delays to diagnosis)	92 (18)	248 (33)	32 (82)
Seeking and giving advice (including: management of symptoms, advice for others, encouragement)	333 (65)	352 (47)	18 (46)
Symptoms (including: mentions of symptoms)	230 (45)	273 (37)	24 (62)
Treatments (including: efficacy and safety of biologics, success stories, potential side effects of steroids)	354 (70)	204 (27)	14 (36)

EGPA, eosinophilic granulomatosis with polyangiitis

HES, hypereosinophilic syndrome

SEA, severe eosinophilic asthma