Availability of CFTR modulator therapy down to younger ages coupled with the COVID-19 pandemic led to a remarkable decrease in pulmonary exacerbations (PEx) requiring hospitalization among children with CF.

**RESULTS**

- **Hospitalizations decreased >60% from 2018 to 2022 across our 5 pediatric sites**
  - Total # of hospitalizations
  - % of those hospitalized ≥ 2 times

- **No age or sex differences among those hospitalized in 2022 compared with 2018**
  - Age
  - Sex

- **Significant racial differences among those hospitalized in 2022 compared with 2018**
  - Race
  - Ethnicity

- **Changes in lung function were similar in 2018 and 2022**
  - No differences in the proportion of individuals who returned to ≥ 90% or ≥ 100% of baseline ppFEV1

- **Children hospitalized in 2022 were more likely to have two non-F508del mutations**

**STUDY OBJECTIVE**

Determine the characteristics of children with CF who are now requiring hospitalization for PEx.

**METHODS**

- Retrospective medical chart review at five U.S. pediatric sites
- Data from all children with CF (ages from birth and older) who were hospitalized and received IV antibiotics for treatment of PEx in 2018 and 2022
- Four elements in REDCap: demographics, admissions, microbiology, inpatient medications
- Reduction in hospitalizations likely reflects the benefit of ETI therapy, as a higher percentage of children hospitalized in 2022 had 2 non-F508del mutations and were not eligible for ETI
- Higher percentage of those hospitalized in 2022 identified as being from minority racial backgrounds, further highlighting the importance of health equity efforts in CF
- Lower percentage of children hospitalized in 2022 were infected with MRSA, concurrent with decreased rates of MRSA community infections in 2022

**STUDY LIMITATIONS**

- Variable practice patterns across sites (diagnosis & treatment)
- Lacking treatment adherence data, particularly around the use of CFTR modulator therapies
- Lacking measures of mental and social health

**CONCLUSIONS**

- Reduction in hospitalizations likely reflects the benefit of ETI therapy, as a higher percentage of children hospitalized in 2022 had non-F508del mutations and were not eligible for ETI
- Higher percentage of those hospitalized in 2022 identified as being from minority racial backgrounds, further highlighting the importance of health equity efforts in CF
- Lower percentage of children hospitalized in 2022 were infected with MRSA, concurrent with decreased rates of MRSA community infections in 2022

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